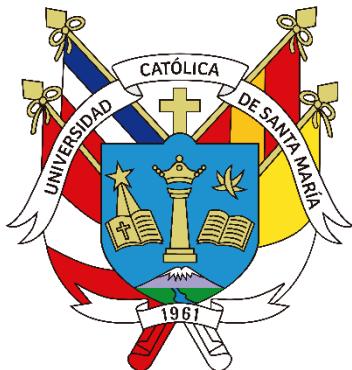


Universidad Católica de Santa María
Facultad de Ciencias Económicas y Administrativas
Escuela Profesional de Ingeniería Comercial



**ESTRATEGIA DE MINIMIZACIÓN DE RIESGO PARA EL PORTAFOLIO
DEL FONDO TIPO 3 DE LAS AFPS PERUANAS UTILIZANDO
CONDITIONAL VALUE AT RISK, PERÍODO 2015-2021, PERÚ**

Tesis presentada por el Bachiller

Arce Guevara, Jenfri Javier

Para optar el Título Profesional de
Ingeniero Comercial

Asesor (a):

**Mg. Wong Calderón, Victor
Hugo**

Arequipa - Perú

2023

UNIVERSIDAD CATÓLICA DE SANTA MARÍA
INGENIERIA COMERCIAL
TITULACIÓN CON TESIS
DICTAMEN APROBACIÓN DE BORRADOR

Arequipa, 27 de Diciembre del 2022

Dictamen: 005699-C-EPICO-2022

Visto el borrador del expediente 005699, presentado por:

2016222301 - ARCE GUEVARA JENFRI JAVIER

Titulado:

ESTRATEGIA DE MINIMIZACIÓN DE RIESGO PARA EL PORTAFOLIO DEL FONDO TIPO 3 DE LAS AFPS PERUANAS UTILIZANDO CONDITIONAL VALUE AT RISK, PERÍODO 2015 ? 2021, PERÚ

Nuestro dictamen es:

APROBADO

29263052 - TORRES PAREDES LUIS EMILIO
DICTAMINADOR



30400132 - ESPINOZA RIEGA JORGE DAVID
DICTAMINADOR



41635889 - LEWIS ZUÑIGA PATRICIO FEDERICO
DICTAMINADOR



Dedicatoria

A Dios, mis padres Deydania y Javier, a mi hermano y amigos quienes con amor y paciencia me apoyaron incondicionalmente a lo largo de toda mi carrera universitaria.

A todos los profesores y mentores que me inspiraron a ser un mejor profesional

Gracias.

Agradecimientos

Un agradecimiento muy especial a mi querida casa de estudios, la Universidad Católica Santa María, por ser un espacio de aprendizaje que me ha permitido desarrollarme y aprender de valiosos conocimientos, De manera muy especial a mi asesor Víctor Hugo Wong que me guio con mucha paciencia a comprender el mundo de las finanzas Finalmente, un agradecimiento especial a mi familia por alentarme a ser mejor persona y profesional.



RESUMEN

El presente trabajo desarrolló la metodología de optimización de portafolios de inversión utilizando el Conditional Value at Risk como métrica de riesgo, con el fin de obtener una composición o pesos óptimos los cuales cumplen con el objetivo de minimizar el riesgo (CVaR). Además, se plantea la estrategia de rebalanceos periódicos, que en este caso se escogió rebalanceos anuales con el fin de obtener un mejor rendimiento y un menor riesgo. Se procesaron 19,643 datos de los precios de los ETFs que representan al portafolio del fondo tipo 3 de las AFPs peruanas, estos precios o datos son diarios y comprenden desde el 02 de enero del 2015 al 31 de diciembre del 2020. Con estos datos, se desarrolló el modelo de optimización de portafolio con ayuda del software estadístico RStudio. Además, se utilizó la métrica del Conditional Value at Risk, a un nivel de confianza del 95%. Finalmente, el resultado de la optimización del portafolio del fondo tipo 3 de las AFPs, es la composición o pesos óptimos del portafolio, alcanzando el objetivo de minimizar el riesgo, además se compara las estrategias de minimización, entre las estrategias de minimización sin rebalanceo anual y con rebalanceo anual. Adicional a esto, la estrategia con un mejor resultado en el rendimiento y en el riesgo, es la que aplica los rebalanceos anuales.

Palabras clave: Optimización de portafolios, Conditional Value at Risk, métricas de riesgo.

ABSTRACT

This work developed the investment portfolio optimization methodology using the Conditional Value at Risk as a risk metric, to obtain an optimal composition or weights which meet the objective of minimizing risk (CVaR). In addition, the strategy of periodic rebalancing is proposed, which in this case annual rebalancing was chosen to obtain better performance and lower risk. 19,643 data of the prices of the ETFs that represent the portfolio of the type 3 fund of the Peruvian PFAs were processed; these prices or data are daily and cover the period from January 2, 2015, to December 31, 2020. With this data, the portfolio optimization model was developed with the help of the statistical software RStudio. In addition, the Conditional Value at Risk metric was used, at a confidence level of 95%. Finally, the result of the optimization of the portfolio of the type 3 fund of the AFPs is the optimal composition or weights of the portfolio, achieving the objective of minimizing risk, and the minimization strategies are compared between the minimization strategies without annual rebalancing and with annual rebalancing. In addition to this, the strategy with the best performance and risk results is the one that applies annual rebalancing.

Key words: Portfolio optimization, Conditional Value at Risk, risk metrics.

ÍNDICE

Dedicatoria.....	III
Agradecimientos.....	IV
RESUMEN.....	IV
ABSTRACT.....	V
ÍNDICE DE TABLAS	VI
ÍNDICE DE FIGURAS	VII
INTRODUCCIÓN	1
CAPITULO I	
1. PLANTEAMIENTO TEÓRICO.....	3
1.1 Antecedentes investigativos	3
1.1.1 Antecedentes nacionales	3
1.1.2 Antecedente Internacionales	3
2. OBJETIVOS.....	6
2.1 Objetivo General.....	6
2.2 Objetivos específicos	6
3. MARCO TEÓRICO	6
3.1 Bases Teóricas.....	6

VI

3.2 Marco Conceptual.....	25
4. HIPÓTESIS	28
CAPITULO II	
1. DISEÑO DE INVESTIGACIÓN.....	29
1.1 Fondo tipo 3 de las AFPs	31
1.2 Descripción de la data.....	32
CAPITULO III	
RESULTADOS	71
1.1 Retornos Logarítmicos del fondo tipo 3.....	71
1.2 Desarrollo de portafolios óptimos del fondo tipo 3	72
1.3 Portafolio optimo y pesos óptimos del modelo CVAR – sin rebalanceo anual.....	73
1.4 Portafolio optimo y pesos óptimos del modelo CVAR – con rebalanceo anual	74
1.5 Análisis del CVaR anual del portafolio del fondo tipo 3, con rebalanceo anual.....	77
CONCLUSIONES.....	79
RECOMENDACIONES	82
REFERENCIAS.....	72
ANEXOS.....	77

ÍNDICE DE TABLAS

Tabla 1 – Activos seleccionados 32

Tabla 2: Pesos óptimos del portafolio del fondo tipo 3 de las AFPs con el modelo del Conditional Value at Risk – sin rebalanceo anual 73

Tabla 3: Pesos óptimos del portafolio del fondo tipo 3 de las AFPs con el modelo del Conditional Value at Risk – con rebalanceo anual 75

Tabla 4: Comparativo rendimiento logarítmico promedio – Conditional Value at Risk de los portafolios 81

ÍNDICE DE FIGURAS

<i>Figura 1: Portafolio Eficiente</i>	13
<i>Figura 2: Portafolios viables y eficientes con más de dos activos.....</i>	15
<i>Figura 3: Portafolios viables y eficientes con más de dos activos</i>	17
<i>Figura 4: Distribución de Pérdidas y Ganancias, Value at Risk (VaR) y Conditional Value at Risk (CVaR).....</i>	22
<i>Figura 5: Principales posiciones del iShares MSCI Italy ETF, 2021</i>	33
<i>Figura 6: Desglose por sectores del iShares MSCI Italy ETF, 2021</i>	35
<i>Figura 7: Principales posiciones del iShares MSCI Spain ETF, 2021</i>	36
<i>Figura 8: Desglose por sectores del iShares MSCI Spain ETF, 2021</i>	37
<i>Figura 9: Principales posiciones del iShares MSCI Brazil ETF, 2021.....</i>	38
<i>Figura 10: Desglose por sectores del iShares MSCI Brazil ETF, 2021.....</i>	39
<i>Figura 11: Principales posiciones del iShares MSCI Chile ETF, 2021.....</i>	40
<i>Figura 12: Desglose por sectores del iShares MSCI Chile ETF, 2021.....</i>	41
<i>Figura 13: Principales posiciones del iShares MSCI Mexico ETF, 2021.....</i>	42
<i>Figura 14: Desglose por sectores del iShares MSCI Mexico ETF, 2021.....</i>	43
<i>Figura 15: Principales posiciones del iShares MSCI Colombia ETF, 2021.....</i>	44
<i>Figura 16: Desglose por sectores del iShares MSCI Colombia ETF, 2021.....</i>	45
<i>Figura 17: Principales posiciones del iShares MSCI China ETF, 2021.....</i>	46

Figura 18: Desglose por sectores del iShares MSCI China ETF, 2021..... 47

Figura 19: Principales posiciones del iShares MSCI Japan ETF, 2021..... 48

Figura 20: Desglose por sectores del iShares MSCI China ETF, 2021..... 49

Figura 21: Principales posiciones del iShares U.S. Equity Factor ETF, 2021..... 50

Figura 22: Desglose por sectores del iShares U.S. Equity Factor ETF, 2021..... 51

Figura 23: Principales posiciones del iShares MSCI United Kingdom ETF, 2021..... 52

Figura 24: Desglose por sectores del iShares MSCI United Kingdom ETF, 2021..... 53

Figura 25: Principales posiciones del iShares MSCI France ETF, 2021..... 54

Figura 26: Desglose por sectores del iShares MSCI France ETF, 2021..... 55

Figura 27: Principales posiciones del iShares MSCI Germany ETF, 2021..... 56

Figura 28: Desglose por sectores del iShares MSCI Germany ETF, 2021..... 57

Figura 29: Principales posiciones del iShares MSCI Peru ETF, 2021..... 58

Figura 30: Desglose por sectores del iShares MSCI Peru ETF, 2021..... 58

Figura 31: Evolución de los precios históricos del iShares MSCI Italy ETF, 2015 – 2020 (precio dólares americanos)..... 59

Figura 32: Evolución de los precios históricos del iShares MSCI Spain ETF, 2015 – 2020

(precio dólares americanos) 60

Figura 33: Evolución de los precios históricos del iShares MSCI Brazil ETF, 2015 – 2020

(precio dólares americanos) 61

Figura 34: Evolución de los precios históricos del iShares MSCI Chile ETF, 2015 – 2020

(precio dólares americanos)	61
<i>Figura 35: Evolución de los precios históricos del iShares MSCI Mexico ETF, 2015 – 2020</i>	
(precio dólares americanos)	62
<i>Figura 36: Evolución de los precios históricos del iShares MSCI Colombia ETF, 2015 – 2020</i>	
(precio dólares americanos)	63
<i>Figura 37: Evolución de los precios históricos del iShares MSCI China ETF, 2015 – 2020</i>	
(precio dólares americanos)	64
<i>Figura 38: Evolución de los precios históricos del iShares MSCI Japan ETF, 2015 – 2020</i>	
(precio dólares americanos)	65
<i>Figura 39: Evolución de los precios históricos del iShares U.S. Equity Factor ETF, 2015 – 2020</i>	
(precio dólares americanos)	66
<i>Figura 40: Evolución de los precios históricos del iShares MSCI United Kingdom ETF, 2015 – 2020 (precio dólares americanos)</i>	66
<i>Figura 41: Evolución de los precios históricos del iShares MSCI France ETF, 2015 – 2020</i>	
(precio dólares americanos)	67
<i>Figura 42: Evolución de los precios históricos del iShares MSCI Germany ETF, 2015 – 2020</i>	
(precio dólares americanos)	68
<i>Figura 43: Evolución de los precios históricos del iShares MSCI Peru ETF, 2015 – 2020 (precio dólares americanos)</i>	69
<i>Figura 44: Evolución rendimiento logarítmico del portafolio tipo 3, 2016 – 2021</i>	71
<i>Figura 45: Pesos óptimos del portafolio del fondo tipo 3 de las AFPs con el modelo del</i>	

Conditional Value at Risk 74

Figura 46: Pesos óptimos del portafolio del fondo tipo 3 de las AFPs con el modelo del

Conditional Value at Risk – con rebalanceo anual 76

Figura 47: Conditional Value at Risk del portafolio con rebalanceo anual, 2016 - 2020..... 78



X

INTRODUCCIÓN

El portafolio del fondo tipo 3 de las AFPs peruanas, está compuesta principalmente por renta variable (acciones), este portafolio puede realizar inversiones tanto en el mercado local como en el mercado extranjero, con el fin de representar a este fondo, se consideraron instrumentos de inversión como los Exchange Traded Fund de las distintas economías del mundo, los cuales son: iShares MSCI Italy ETF, iShares MSCI Spain ETF, iShares MSCI Brazil ETF, iShares MSCI Chile ETF, iShares MSCI Mexico ETF, iShares MSCI Colombia ETF, iShares MSCI China ETF, iShares MSCI Japan ETF, iShares U.S. Equity Factor ETF, iShares MSCI United Kingdom ETF, iShares MSCI France ETF, iShares MSCI Germany ETF. Estos instrumentos de inversión cotizan en dólares americanos.

Con el presente trabajo de investigación, se alcanzó el objetivo de desarrollar una estrategia de minimización de riesgo utilizando el Conditional Value at Risk para el portafolio del fondo tipo 3 de las AFPs peruanas.

El primer capítulo, desarrolla los conceptos relacionados a la optimización de portafolio, a la determinación de la métrica coherente de riesgo, y los conceptos relacionados al Conditional Value at Risk. Asimismo, se presentan los antecedentes de otros trabajos de investigación de optimización de portafolios utilizando la métrica de riesgo del Conditional Value at Risk.

En el segundo capítulo, se analizan los precios de los diferentes instrumentos de inversión los cuales son: iShares MSCI Italy ETF, iShares MSCI Spain ETF, iShares MSCI Brazil ETF, iShares MSCI Chile ETF, iShares MSCI Mexico ETF, iShares MSCI Colombia ETF, iShares MSCI China ETF, iShares MSCI Japan ETF, iShares U.S. Equity Factor ETF, iShares MSCI United Kingdom ETF, iShares MSCI France ETF, iShares MSCI Germany ETF. Adicional a esto, se muestra la composición o posiciones de los Exchange Traded Fund propuestos, las

posiciones de los instrumentos se encuentran al año 2021.

En el tercer capítulo, alcanza a explicar los resultados obtenidos mediante la metodología de optimización de portafolio, utilizando el Conditional Value at Risk, esta metodología tiene como objetivo minimizar el riesgo. Además, se obtiene la composición optima del portafolio, mediante la estrategia de rebalanceos anuales del portafolio.

El principal logro fue optimizar los fondos tipo 3 de las AFPs peruanas a través de la estrategia de minimización de riesgo considerando el modelo Conditional Value at Risk.



CAPITULO I

1. PLANTEAMIENTO TEÓRICO

1.1 Antecedentes investigativos

1.1.1 Antecedentes nacionales

Desde que el Conditional Value at Risk (CVaR) se hizo conocido en el mundo financiero, debido a que es una medida coherente de riesgo y matemáticamente aceptada, esto hizo que no solo sea un modelo teórico si no también un modelo práctico y utilizable en los distintos campos financieros, debido a que se una medida de riesgo aceptado por los expertos en riesgos financieros.

Según (Navarrete, 2012), el Conditional Value at Risk es una medida de riesgo coherente, debido a que es continuo respecto al nivel selección, esto implica que se pueda realizar optimizaciones en portafolios de inversión empleando el Conditional Value at Risk como una métrica de riesgo.

Por otra parte, (Solís, 2019) utiliza distintas métricas de riesgo para analizar la volatilidad como el Value at Risk (VaR) y el Conditional Value at Risk (CVaR), el autor también desarrolla una comparación entre las métricas de riesgos, para la optimización de portafolio.

Además, (Medina Arauco & Mendoza Vasquez, 2019) demuestra que puede existir una mejor relación entre el riesgo y rentabilidad, empleando la metodología del CVaR para evaluar el riesgo, los autores utilizaron el método de simulación histórica con el cual buscan optimizar el riesgo a través de la métrica de riesgo del Conditional Value at Risk.

1.1.2 Antecedente Internacionales

Debido a que esta es una medida de riesgo muy popular impulsaron a muchos trabajos de investigación, claramente existe distintas medidas de riesgo aceptadas al momento de optimizar

portafolios, pero el CVaR ha ganado una popularidad creciente en los años recientes. Debido a que está empezando a remplazar el clásico Value at Risk (VaR), considerando que existen muchas razones para esto (Ciliberti et al., 2007).

Además, la optimización de portafolios intenta elegir la composición del portafolio de tal manera que se minimice el riesgo en un determinado nivel de rendimiento esperado (o maximizar el rendimiento a un nivel de riesgo dado) (Caccioli et al., 2018).

Por otra parte, (Nakagawa et al., 2020) plantea el problema de encontrar un portafolio óptimo para los inversores, lo cual se denomina como problema de optimización de portafolio, debido a que se utiliza principalmente el retorno promedio o expected return, la media varianza, aunque la media varianza sea una medida de riesgo más fundamental para ser minimizado, debido a que este cuenta con muchos inconvenientes, sin embargo el Conditional Value at Risk (CVaR), es una medida de riesgo que aborda algunas de las deficiencias conocidas relacionadas con la varianza, el CVaR gano popularidad debido a sus eficiencias computacionales.

Para (Krokhmal et al., 2002) el Conditional Value at Risk es el promedio ponderado del VaR y sus pérdidas, siendo el tema de central de enfoque la técnica de optimización para calcular el VaR y optimizar el CVaR.

Siendo, el objetivo primordial de un inversor es distribuir de forma optimas sus inversiones entre diferentes activos, se puede optimizar estos portafolios con métricas de riesgo como el Conditional Value at Risk, esto puede ser hallado aplicando un algoritmo el cual maximice el valor esperado de la cartera bajo restricciones en la cartera como es el Conditional Value at Risk (Gilli & Kellezi, 2002).

Como plantea (Acerbi et al., 2018) el Conditional Value at Risk surge como una solución en algunos casos donde el Value at Risk no es capaz de distinguir carteras que conllevan

diferentes niveles de riesgo, la diferencia del Value at Risk y el Conditional Value at Risk está en que la variable es en general subaditiva y por lo tanto es una medida coherente de riesgo.

Desde que el Value at Risk fue adoptada como una métrica de riesgo la cual es empleada prácticamente por todos los reguladores y bancos, pero esta métrica cuenta con algunas falencias lo cual hace que el Conditional Value at Risk sea una métrica más coherente y aceptada, esto hace que esta métrica puede ser empleada en la optimización de portafolios de inversión (Acerbi & Tasche, 2001).



2. OBJETIVOS

2.1 Objetivo General

Desarrollar una estrategia de minimización de riesgo utilizando el Conditional Value at Risk para el portafolio del fondo tipo 3 de las AFPs peruanas.

2.2 Objetivos específicos

Calcular el rendimiento logarítmico promedio de 5 años de la composición del portafolio.

Analizar el Conditional Value at Risk (CVaR) en los rebalanceos anuales del portafolio tipo 3.

Analizar la composición o pesos del portafolio tipo 3 en el rebalanceo anual.

Analizar el rendimiento promedio anual de los 5 años del portafolio del fondo tipo 3 de las AFPs peruanas.

Formular una estrategia de composición de portafolio que genere un mayor rendimiento y un menor riesgo.

3. MARCO TEÓRICO

3.1 Bases Teóricas

Teoría del Portafolio

Harry Markowitz en 1952 propuso un modelo para la selección de carteras de valores con liquidez inmediata. Esta teoría no tuvo interés hasta el año 1959, en el cual se dilucido su formulación inicial.

En dicho modelo Markowitz propuso como encontrar la composición optima de un portafolio de valore, logrando maximizar la rentabilidad para un determinado nivel máximo de riesgo aceptable; o minimizar el riesgo para una rentabilidad mínima esperada. (Franco et al.,

2011)

La eficiencia de media varianza de Markowitz es el modelo clásico para asignar eficientemente el capital entre los activos de riesgos. Debido a las estimaciones del rendimiento esperado, la desviación estándar o varianza y la correlación del rendimiento de un conjunto de activos, la eficiencia del modelo de Media-Varianza proporciona al inversor una fórmula exacta para la asignación óptima de capital. Además, el modelo de Media - Varianza no solo considera el riesgo y el rendimiento de los valores, sino también sus interrelaciones. Adicionalmente el modelo de Media-Varianza es el criterio de elección para definir la estructura de cartera óptima y para racionalizar el valor de diversificación. El modelo es la base de muchos avances en las finanzas. (Markowitz, 1959, citado por (Michaud & Michaud, 2008)

Hipótesis del Modelo de Markowitz

Harry Markowitz propone una serie de hipótesis que son de ayuda, para el desarrollo del modelo de Media-Varianza, esto es comentado en el libro “Mercado de Capitales” de (Court & Tarradellas, 2010), esto es explicado de la siguiente manera:

En primera instancia los beneficios de cualquier portafolio se pueden considerar como una variable subjetiva de tipo aleatoria, donde la probabilidad está distribuida para el periodo de referencia, dicha es conocida por el inversor, en donde la esperanza matemática de la variable mencionada anteriormente se acepta como medida de la rentabilidad.

También son aceptadas las principales métricas como son la medida por la varianza, la desviación estándar, la dispersión, todas estas de la variable aleatoria que describimos en el punto anterior, esta puede ser de una cartera o de un valor individual, sin embargo, algunos inversores prefieren mayor rentabilidad en los portafolios con un riesgo menor

Debemos tener en consideración que ni los costos de transacción e impuestos son

considerados en el modelo sin embargo si toma en cuenta la divisibilidad de los títulos, finalmente es importante tomar en cuenta que este modelo no proporciona al inversor herramienta alguna para determinar su actitud frente al riesgo.(Court & Tarradellas, 2010),

Para el desarrollo del modelo propuesto por Markowitz, es necesario entender conceptos elementales como rendimiento y riesgo las cuales son expresados de forma matemática, esto será de gran ayuda en la formulación del modelo de Media-Varianza.

Retorno del Portafolio

El rendimiento actual de un portafolio de activos durante un periodo de tiempo específico es un promedio ponderado de los rendimientos de los activos individuales de la cartera.(Peterson & Fabozzi, 2010). Esta se calcula de la siguiente manera:

$$R_p = w_1 R_1 + w_2 R_2 + \dots + w_G R_G \quad (1)$$

Donde:

R_p = Tasa de rendimiento del portafolio durante el periodo.

R_g = Tasa de rendimiento del activo G durante el periodo.

w_g = Peso del activo g en la cartera al comienzo del periodo.

G = Numero de activos en la cartera.

De forma más abreviada podemos expresar la ecuación (1) mencionada como:

$$R_p = \sum_{g=1}^G w_g R_g \quad (2)$$

En la ecuación (2), el rendimiento del portafolio, R_p , de G activos es igual a la suma de los productos de los pesos de los activos individuales en la cartera y su rendimiento respectivo. El rendimiento del portafolio R_p a veces se denomina rendimiento del periodo de tenencia o rendimiento ex post. (Peterson & Fabozzi, 2010)

La rentabilidad esperada del portafolio es el promedio ponderado de la rentabilidad esperada de cada activo del portafolio. El peso conferido a la rentabilidad esperada de cada activo es el porcentaje del valor de mercado del activo entre el valor de mercado total del portafolio. (Peterson & Fabozzi, 2010). Esto puede ser explicado de la siguiente manera:

$$E(R_p) = w_1 E(R_1) + w_2 E(R_2) + \cdots + w_G E(R_G) \quad (3)$$

Donde, $E()$ puede interpretarse como las expectativas, y $E(R_p)$ es el rendimiento esperado del portafolio durante un tiempo específico. (Peterson & Fabozzi, 2010)

Matemáticamente, el rendimiento esperado del activo i , puede ser expresado de la siguiente manera:

$$E(R_i) = p_1 R_1 + p_2 R_2 + \cdots + p_N R_n \quad (4)$$

Donde:

R_n = Es la enésima tasa de rendimiento posible para el activo i .

p_n = Es la probabilidad de alcanzar la tasa de rendimiento n para el activo i .

N = Es el número de resultados posibles para la tasa de rendimiento.

Métrica del Riesgo de un Portafolio

Harry Markowitz cuantificó el concepto de riesgo utilizando las métricas estadísticas como la varianza y covarianza. Con lo cual definió que el riesgo de un portafolio, esta es la suma de las varianzas y las covarianzas de los activos. La idea de introducir las covarianzas entre los rendimientos de las inversiones del portafolio es para medir el riesgo de este, esto significó un cambio sobre el concepto de riesgo en los inversionistas. (Peterson & Fabozzi, 2010)

La varianza de una variable aleatoria la cual es entendida como una medida de dispersión o variabilidad de los posibles resultados respecto al valor esperado. En el caso del rendimiento de

activo, la varianza es una métrica de la dispersión de los posibles resultados de las tasas de rendimiento respecto al valor esperado. (Peterson & Fabozzi, 2010)

La ecuación de la varianza del rendimiento esperado del activo i señalado $\sigma^2(R_i)$, es:

$$\sigma^2(R_i) = p_1(r_1 - E(R_i))^2 + p_2(r_2 - E(R_i))^2 + \dots + p_N(r_N - E(R_i))^2 \quad (5)$$

Asumiendo que N son los posibles resultados. Esto puede ser expresado como:

$$\sigma^2(R_i) = \sum_{n=1}^N p_n(r_n - E(R_i))^2$$

La varianza está asociada a la distribución de rendimientos la cual mide la densidad en que se agrupa, el rendimiento medio esperado. Markowitz infirió que esta variación es equivalente a la incertidumbre o riesgo de la inversión. Si el activo no tiene riesgo, tiene un rendimiento esperado de cero. Dicho de otra manera, el rendimiento es cierto y está asegurado. Debido a que la varianza está elevado al cuadrado, y es muy común que la varianza sea convertida a la desviación estándar, σ , tomando la raíz cuadrada positiva de la varianza:

$$\sigma(R_i) = \sqrt{\sigma^2(R_i)}$$

Puesto que el rendimiento esperado y la varianza son los dos únicos parámetros en los cuales se supone que los inversionistas deben considerar al tomar decisiones de inversión, comúnmente nos referimos la teoría de portafolio de Harry Markowitz como una teoría de dos parámetros o análisis de media varianza. (Peterson & Fabozzi, 2010)

Como se ha venido explicando y definiendo el riesgo de un portafolio este compuesto por activos. Esto se explica de la siguiente forma:

$$\begin{aligned}
 \sigma^2(R_p) = & w_i^2 \sigma^2(R_i) + w_j^2 \sigma^2(R_j) + w_k^2 \sigma^2(R_k) + 2w_i w_j COV(R_i R_j) + 2w_i w_k COV(R_i R_k) \\
 & + 2w_i w_k COV(R_i R_k) \\
 & + 2w_j w_k COV(R_j R_k)
 \end{aligned} \tag{6}$$

En otros términos, la ecuación (9) ordena que la varianza del rendimiento del portafolio es la suma de las varianzas ponderadas al cuadrado de los activos individuales más dos veces la suma de las covarianzas ponderadas por los activos. Para un portafolio con activos G, la varianza del portafolio viene dado por

$$\sigma^2(R_p) = \sum_{g=1}^G \sum_{h=1}^G w_g w_h COV(R_g R_h) \tag{7}$$

En la ecuación (5) los términos para los que $h = g$ dan como resultados las varianzas de los activos G, y los términos para los que $h \neq g$ dan como resultado todas las posibles covarianzas entre los activos G. Debido a esto, la ecuación se encuentra abreviada para la suma de todas las varianzas G y las probables covarianzas entre los activos G.

Optimización del Portafolio

Para la formulación matemática del modelo de Harry Markowitz se determina las ponderaciones w_i la cual maximiza el rendimiento esperado del portafolio, esto se encuentra sujeto a un riesgo máximo admitido. (Franco et al., 2011)

Por lo cual se explica de la siguiente manera:

$$Max E(R_p) = \sum_{i=1}^n w_i E(R_i) \tag{8}$$

La ecuación (8) se encuentra sujeto a

$$\begin{aligned}\sigma^2(R_p) &= \sum_{i=1}^n \sum_{j=1}^n w_i w_j \sigma_{ij} \leq \sigma_0^2 \\ \sum_{i=1}^n w_i &= 1; \quad w_i \\ &\geq 0 \quad (i = 1, \dots, n)\end{aligned}\tag{9}$$

Se puede entender que n es el número de activos del portafolio, R_i es la variable aleatoria del rendimiento del activo i , R_p es la variable aleatoria del rendimiento del portafolio, $E(R_p)$ es el rendimiento esperado del portafolio, w_i es la proporción del presupuesto del inversionista para el activo i , $\sigma^2(R_p)$ es la varianza del rendimiento del portafolio, σ_{ij} es la covarianza entre los rendimientos de los activos; finalmente, σ_0^2 es la varianza máxima admitida. (Franco et al., 2011)

La otra formulación alternativa consiste en determinar las ponderaciones que minimizan la varianza del portafolio, esta se encuentra sujeta a un requerido rendimiento mínimo para el portafolio. (Franco et al., 2011)

Esto puede ser expresado de la siguiente manera:

$$\text{Min } \sigma^2(R_p) = \sum_{i=1}^n \sum_{j=1}^n w_i w_j \sigma_{ij}\tag{10}$$

La ecuación (10) se encuentra sujeta a

$$E(R_p) = \sum_{i=1}^n w_i E(R_i) \geq \mu_0$$

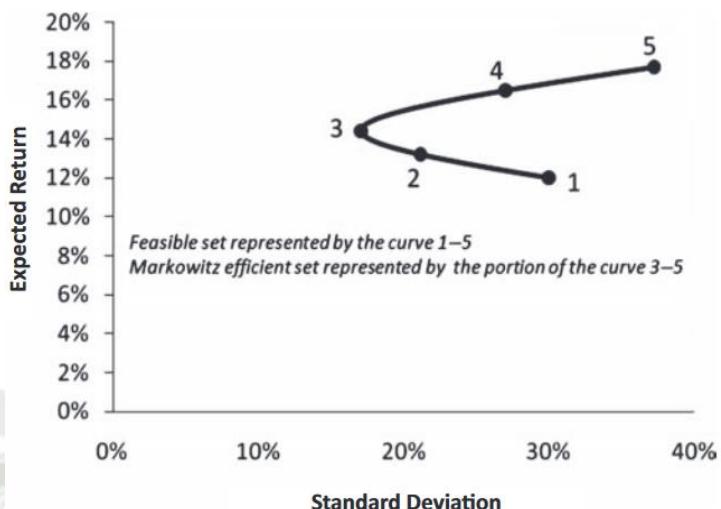
$$\sum_{i=1}^n w_i = 1; \quad w_i \geq 0 \quad (i = 1, \dots, n) \quad (11)$$

Se puede entender que μ_0 es el rendimiento mínimo que es requerido. Estas dos alternativas, optimizando la varianza o el valor esperado, se podrían encontrar las ponderaciones de los activos, que pueden ser optimizadas con las restricciones dadas, con lo cual se puede determinar una serie de portafolios eficientes que pueden proporcionar el máximo rendimiento para un nivel de riesgo dado.

Portafolio Factible y Eficiente

El conjunto de portafolios factibles puede ser representada gráficamente como una curva la cual representa las combinaciones de riesgo y rendimiento esperado, esto se puede lograr construyendo portafolios a partir de todas las posibles combinaciones de los activos. Sin embargo, portafolio factible es un portafolio eficiente la cual da un rendimiento esperado más alto de todos los portafolios factibles con el mismo riesgo. Además, se entiende que un portafolio eficiente es un portafolio eficiente de media-varianza. Para cada nivel de riesgo existe un portafolio eficiente. El grupo de todos los portafolios eficientes se denomina conjunto eficiente. (Peterson & Fabozzi, 2010)

Figura 1: Portafolio Eficiente



Fuente: Peterson & Fabozzi, (2010)

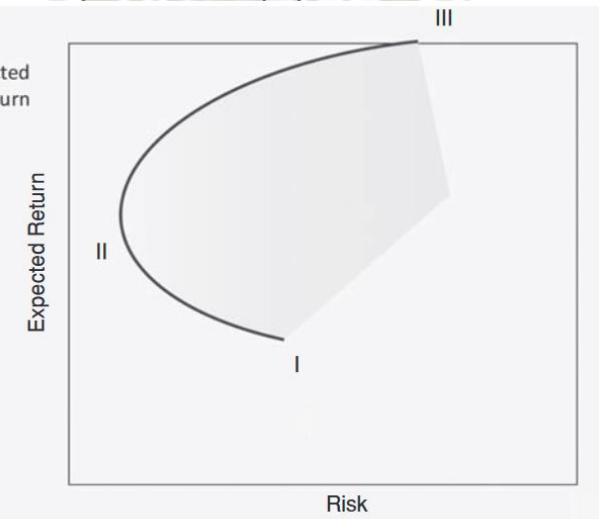
Los portafolios eficientes son las combinaciones que resultan en las combinaciones de riesgo-rendimiento en la curva de la cartera 3 a la 5. Estos portafolios eficientes ofrecen la rentabilidad esperada más alta en un nivel de riesgo dado. Se puede observar que los portafolios 1 y 2 no están incluidos en el grupo eficiente. Esto se debe a que existe al menos un portafolio en el conjunto eficiente la cual tiene un rendimiento esperado más alto y un riesgo más bajo que los otros dos. Además, se puede apreciar que el portafolio 4 tiene un rendimiento esperado más alto y un riesgo menor que el portafolio 1. En realidad, toda la sección de portafolio 1-3 de la curva no es eficiente. Dada cualquier combinación de riesgo-rendimiento en esta parte de la curva, existe una combinación en la parte de la curva 3 a 5 que tiene el mismo riesgo y un mayor rendimiento. Existe un portafolio que tiene la misma rentabilidad y menor riesgo. (Peterson & Fabozzi, 2010)

Podemos ilustrarnos sobre los conjuntos factibles y eficientes cuando existen más activos.

El conjunto factible no es una curva, sino un área. Esto se puede entender que, a diferencia de

otros casos con solo dos activos, se puede crear portafolios que entreguen como resultado combinaciones de riesgo-rendimiento que no solo entreguen como resultado combinaciones que se encuentran en la curva I-II-III, sino todas las posibles combinaciones que se puedan encontrar en la curva coloreada. Es posible que el conjunto eficiente pueda ser dado por la curva II-III. Esto se puede apreciar fácilmente en que todos los portafolios del conjunto eficiente dominan los portafolios del área coloreada. (Peterson & Fabozzi, 2010)

Figura 2: Portafolios viables y eficientes con más de dos activos



Fuente: Peterson & Fabozzi, (2010)

Podemos referirnos al conjunto eficiente de portafolios como la frontera eficiente, puesto que gráficamente todos los portafolios eficientes se encuentran en límite del conjunto de portafolios factibles que tiene el máximo rendimiento para un nivel de riesgo dado. No es posible lograr ninguna combinación de riesgo-rendimiento por encima de la frontera eficiente, en tanto que las combinaciones de riesgo-rendimiento del portafolio que conforman la frontera eficiente dominen a las que se encuentren por debajo de la frontera eficiente. (Peterson & Fabozzi, 2010)

Value at Risk

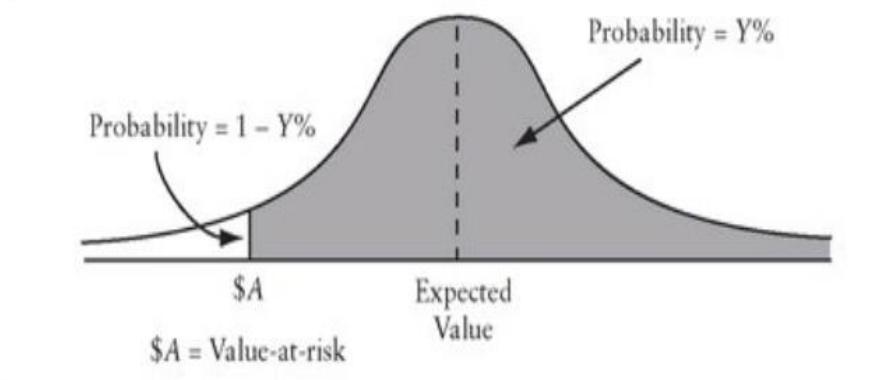
El Value at Risk es una métrica de la peor pérdida esperada que puede sufrir un portafolio durante un periodo de tiempo dado por el usuario, bajo condiciones normales de mercado y un nivel de confianza específico. De forma más explicada, el Value at Risk es la pérdida esperada de un portafolio durante un periodo de tiempo específico para un nivel de probabilidad establecida por el usuario. (Fabozzi & Mann, 2010)

Por otra parte, cuando se usa la métrica del Value at Risk se puede explicar de la siguiente manera; “Estamos X por ciento seguros de que no perderemos más de V dólares en el tiempo T”. Se puede entender que la variable V es el Value at Risk del portafolio. Siendo una función de dos parámetros: el horizonte de tiempo, que es T y el nivel de confianza, X por ciento. Siendo el nivel de pérdida durante un periodo de tiempo T que estamos seguros a X por ciento de que no se excederá. Se puede calcular el Value at Risk a partir de la distribución de probabilidad de las ganancias durante el periodo de tiempo T o también de la distribución de probabilidad de las pérdidas durante el tiempo T. (Hull, 2015)

Desde otra perspectiva, el Value at Risk es una métrica de riesgo de mercado desarrollada por JPMorgan en la década de 1980. A partir de esta década, los gestores de portafolios y los bancos han estado utilizando ampliamente el Value at Risk como una métrica de riesgo a los que se enfrentan durante sus días de trabajo; el Value at Risk procura reflejar la cantidad máxima de dinero que un gestor de portafolio puede esperar perder con una probabilidad dada. Se puede calcular el Value at Risk utilizando los datos de tres o cuatro años anteriormente de actividad, por consiguiente, tienden a reflejar un menor riesgo, puesto que las empresas funcionan sin problemas durante periodos más prolongados. Se puede entender que, las medidas en las que se basa el Value at Risk son la experiencia de pérdidas durante periodo anteriores, donde son útiles

para predecir las perdidas futuras. (Neave, 2009)

Figura 3: Portafolios viables y eficientes con más de dos activos



Fuente: Fabozzi & Mann (2010)

Se puede apreciar gráficamente que el Value at Risk asume una distribución de probabilidad normal junto con el valor esperado y la desviación estándar. En la figura 3 se puede apreciar la distribución de probabilidad normal para el cambio en el valor de un portafolio durante los próximos T días; el Value at Risk es la perdida de dólares A donde la probabilidad a la derecha de ese valor es Y%. Por consiguiente, el Value at Risk es la probabilidad de la izquierda del valor de la probabilidad en la cola que es igual a $1 - Y\%$. (Fabozzi & Mann, 2010)

Asimismo, el Value at Risk captura solo aquellos riesgos que pueden ser medidos en términos cuantitativos; este no captura las exposiciones al riesgo, como el riesgo operativo, el riesgo de liquidez, el riesgo regulatorio o el riesgo soberano. Para Fabozzi & Mann, (2010) existe tres diferentes métodos para calcular el Value at Risk:

Varianza/ Covarianza: Según Fabozzi & Mann, (2010) El método de varianza – covarianza o también llamado el método paramétrico, asume que los rendimientos de los factores de riesgo se distribuyen normalmente, entendiendo que las correlaciones entre los factores de riesgo son constantes y la delta o la sensibilidad del precio a los cambios en un factor de riesgo,

de cada activo que compone el portafolio es constante. Puesto que nuestro enfoque es usar el Value at Risk para medir el riesgo de la tasa de interés, delta sería una medida de sensibilidad de la tasa de interés. La volatilidad de cada factor de riesgo se puede extraer del periodo histórico de observación. Por lo cual, se requieren datos históricos sobre la rentabilidad de los activos. Este efecto de cada componente del portafolio sobre el valor total de la cartera se calcula a partir de la delta del componente y la volatilidad de ese factor de riesgo. Para obtener el resultado del Value at Risk de un solo activo con este método se debe calcular primero la desviación estándar de los rendimientos de este activo utilizando su volatilidad histórica. Se puede requerir un nivel de confianza del 95%, lo que significa que se desea obtener el 5% de las observaciones en el extremo izquierdo de la cola de la distribución normal, esto significa que las observaciones en el área están al menos 1,645 desviaciones estándar por debajo de la media.

Simulación Histórica: Según Fabozzi & Mann, (2010) este método calcula el Value at Risk bajo un enfoque el cual evita algunos supuestos propuestos por el método de varianza/covarianza. De manera más específica los principales supuestos son: rendimientos son normalmente distribuidos, correlaciones constantes, deltas constantes, estos supuestos no son necesarios para ser aplicados bajo este método. Para el método de simulación histórica, las perdidas potenciales se estiman utilizando rendimientos históricos reales en factores de riesgo. Por consiguiente, en lugar de imponer una distribución normal, se puede utilizar distribuciones no normales de los rendimientos de los factores de riesgo. Por lo tanto, se puede entender que los eventos raros y los bloqueos pueden ser incluidos en los resultados. Puesto que los rendimientos de los factores de riesgo son empleados para revaluar la cartera son movimientos que sucedieron en el pasado, las correlaciones en el cálculo también son correlaciones que sucedieron en el pasado. Esto hace que se pueda capturar la dinámica de la correlación, como también escenarios

en los que se rompen las relaciones de correcciones habituales. Esta metodología es relativamente fácil de implementar y explicar. Para poner en práctica este método, se requiere un registro en la base de datos de sus rendimientos pasados para el total del portafolio, posteriormente debe aplicar el intervalo de confianza requerido a este registro, esto con el fin de obtener un punto de corte del peor de los casos.

Simulación Monte Carlo: Según Fabozzi & Mann, (2010) el método de simulación Monte Carlo permite utilizar distribuciones históricas reales para los rendimientos de los factores de riesgo en lugar de asumir la normalidad. Una grande cantidad de simulaciones generadas aleatoriamente pueden ser ejecutadas en el tiempo utilizando estimaciones de volatilidad y correlación. Las simulaciones serán diferentes, sin embargo, en el total de las simulaciones se agregarán a los parámetros estadísticos seleccionados. Se puede afirmar que este método es uno de los más realistas, debido a esto es más probable que logre estimar el Value at Risk con una mayor exactitud. Pero este método requiere computadoras con un mayor calculo puesto que se necesitan un tiempo requerido para realizar los cálculos que son muy grandes.

Métrica Coherente de Riesgo

Existen diversas limitaciones al momento de escoger una métrica coherente de riesgo, esto es afirmada por (Arbeláez & Ceballos, 2005), debido a que algunas métricas de riesgo cuenta con problemas de incongruencia desde un punto de vista matemático.

Por otra parte (Tapiero, 2004) afirma que para que las medidas de riesgo sean coherentes deben satisfacer las siguientes propiedades:

Monotononidad: Para (Arbeláez & Ceballos, 2005) “ Si $F_x(x) \geq F_y(x)$ para todo x , escrito $X \leq_{st} Y$, entonces $R[X] \leq R[Y]$ esto significa que a mayor rentabilidad debe corresponder un mayor riesgo”. Al explicar dicha propiedad es entendible que a medida que se

busque obtener una mayor rentabilidad se debe asumir con un riesgo mayor.

Invarianza traslacional: Para (Arbeláez & Ceballos, 2005) la invarianza traslacional es “Si c es una constante y $X \in x$ entonces $R[x+c] = R[x]-c$. Esto significa que, si se invierte una cantidad adicional en el portafolio y se invierte prudentemente, entonces su riesgo se debe reducir en esa cantidad proporcional”. Con esta afirmación es puede determinar que es factible que el riesgo pueda reducir de una forma proporcional a la cantidad adicional en el portafolio.

Homogeneidad positiva: Según (Arbeláez & Ceballos, 2005) “Si c es una constante positiva y $X \in x$ entonces $R[cX] = cR[X]$. Esto significa que, si se aumenta la posición en un portafolio o en alguno de sus activos componentes, el riesgo debe incrementarse proporcionalmente, el riesgo escala con el tamaño de la posición”. Entendiendo este concepto se tomar en consideración que a medida que haya variaciones en la posición del portafolio inicial este debe incrementar en el riesgo de una forma proporcional.

Subaditividad: Según (Arbeláez & Ceballos, 2005) la subaditividad se expresa en “si $X, Y, X + Y \in x$, entonces $R[x+y] \leq R[x] + R[y]$. Es decir, el riesgo global de un portafolio formado por dos o más activos es menor o igual que la suma de los riesgos individuales. Una fusión no crea riesgo extra. Esta característica es la base de la diversificación ya que, según la propiedad, la diversificación no debe aumentar el riesgo”. La diversificación no aumenta el riesgo, esto lo explica la propiedad de subaditividad con lo cual se cuenta como que el riesgo no debe aumentar si se tiene dos o más activos.

La monotonía se puede entender de forma sencilla, si un portafolio tiende a tener un comportamiento peor que otro portafolio, claramente debe verse como más riesgoso y debe requerir más capital. La invarianza traslacional se puede entender de forma razonable. Si se incrementa una cantidad de efectivo a un portafolio, el efectivo proporciona un respaldo contra

perdidas y debería reducir el requisito de capital. La subaditividad, se puede entender también de forma razonable, Si se duplica el tamaño de un portafolio es probable que se requiera el doble de capital. Finalmente, la subaditividad establece que la diversificación reduce los riesgos. (Hull, 2015)

Conditional Value at Risk

Siendo el CVaR una medida complementaria al VaR, esto lo afirma (Arbeláez & Ceballos, 2005) con la cual se puede cuantificar el riesgo de mercado. El CVaR es una medida coherente del riesgo tanto desde la perspectiva académica de la teoría de la medida, como también desde la óptica práctica y operativa debido a que cumple con las propiedades anteriormente expuestas como también cumple con la convexidad y uniextremo, esto hace que sea favorable aplicar algoritmos de optimización y control.

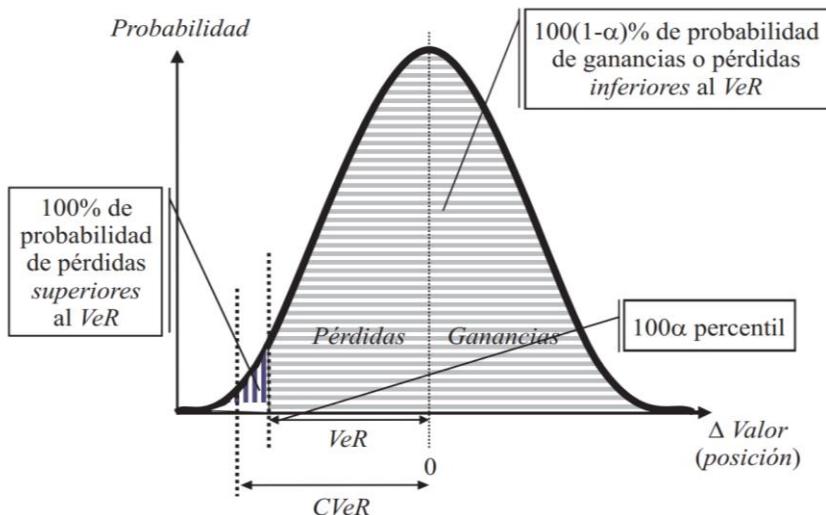
Por otra parte, la aplicación más importante del Conditional Value at Risk está relacionada con la medición del riesgo sistémico, esto es especialmente relevante si en el caso de una crisis sistémica, la contribución de las perdidas es relativamente alta. Esto se puede considerar que la perdida pueda ser medida por el Conditional Value at Risk. (Barker & Filbeck, 2013)

Otra idea sobre el Conditional Value at Risk (CVaR) es que proporciona una estimación de la perdida promediando los Value at Risk (VaR) para aumentar los niveles de confianza (FRM, 2019). Esto hace que el CVaR sea una medida de riesgo más entendible y coherente y matemáticamente realizable.

Según (Feria & Oliver, 2007) el CVaR se puede explicar de una forma muy sencilla cual podría ser la perdida máxima en la que se podría incurrir en un tiempo determinado dado un cierto nivel de confianza, lo que podría explicarse en una perdida potencial, el cual espera

superar el umbral indicado por el VaR.

Figura 4: Distribución de Pérdidas y Ganancias, Value at Risk (VaR) y Conditional Value at Risk (CVaR).



Fuente: Feria & Oliver (2007)

Además, el Conditional Value at Risk (CVaR) puede ser aplicado a distribuciones de perdidas no simétricas, debido a que considera los riesgos más allá del Value at Risk (VaR) y es convexa.

Para (Rockafellar & Uryasev, 2002), define el Conditional Value at Risk (CVaR) como una función especial a la cual se le aplica una coherente regla de minimización, bajo este concepto los autores plantean, la función 1.

$$F_\alpha(x, \zeta) = \zeta + \frac{1}{1-\alpha} E\{[f(x, y) - \zeta]^+\}. \quad (1)$$

Considerando que esta es la función del CVaR. Para Sarykalin et al. (2008) plantean la ecuación 2 de optimización de la función.

$$CVaR_\alpha(x) = \min_\zeta F_\alpha(x, \zeta). \quad (2)$$

Se considera que la función 1 es convexa, de esta manera se puede minimizar $F_\alpha(x, \zeta)$ sobre $(x, \zeta) \in X \times R$, esto tiene como resultado una minimización del $CVaR_\alpha(x)$, esto puede ver en la ecuación 3(Sarykalin et al., 2008).

$$\min_{x \in X} CVaR(x) = \min_{(x, \zeta) \in X \times R} F_\alpha(x, \zeta). \quad (3)$$

Adicionalmente, si (x^*, ζ^*) se minimiza sobre $X \times R$ entonces no solo lo hace x^* también se minimiza $CVaR_\alpha(x)$ sobre X esto se aprecia en la ecuación (4).

$$CVaR_\alpha(x^*) = F_\alpha(x^*, \zeta^*). \quad (4)$$

El Conditional Value at Risk (CVaR) puede ser utilizado para dar forma al riesgo, y esto puede ser aplicado en un modelo de optimización. Esto debe ser especificado en distintos niveles de confianza (Rockafellar & Uryasev, 2002).

$$\begin{aligned} & \min_{x \in X} g(x) \\ & s.t. CVaR_\alpha(x) \leq w_i, \quad i = 1, \dots \end{aligned} \quad (5)$$

Esto es equivalente a:

$$\begin{aligned} & \min_{x, \zeta_1, \dots, \zeta_l \in X \times R \times \dots \times R} g(x) \\ & s.t. F_\alpha(x, \zeta_i) \leq w_i, \quad i = 1, \dots, l. \end{aligned} \quad (6)$$

Cuando X y g son convexos y $f(x, y)$ es convexo en x , es un problema de optimización en las ecuaciones 4 y 5, y por lo tanto son de programación convexa. Además, cuando Y es una probabilidad discreta cuenta con un espacio de probabilidad discreta con elementos $y_k, k = 1, \dots, N$ teniendo las probabilidades $p_k, k = 1, \dots, N$ (Sarykalin et al., 2008). Se tiene la función (7).

$$F_\alpha(x, \zeta_i) = \zeta_i + \frac{1}{1-\alpha} \sum_{k=1}^N P_k [f(x, y_k) - \zeta_i]^+. \quad (7)$$

La restricción de la función $F_\alpha(x, \zeta) \leq w$, esto puede ser reemplazado por un sistema de inecuación adicionando la variable n_k , esto se puede ver en la inecuación (8).

$$n_k \geq 0, \quad f(x, y_k) - \zeta - n_k \leq 0, \quad k = 1, \dots, N,$$

$$\zeta + \frac{1}{1-\alpha} \sum_{k=1}^N P_k n_k \leq w \quad (8)$$

El problema de minimización en la ecuación 6 puede ser convertido en una minimización de $g(x)$ con una restricción de $F_\alpha(x, \zeta_i) \leq w_i$, esto es remplazado en la inecuación (8) (Sarykalin et al., 2008)

Exchange -Traded Funds

Para (Ferri, 2009) los Exchange Traded Funds (ETF) son portafolios de valores que se comercian, como acciones individuales, mediante sociedades agentes de bolsa en una bolsa de valores. Las acciones de los ETF pueden ser negociados con otros inversionistas que también realicen sus transacciones mediante la sociedad agente de bolsa para facilitar sus transacciones. La negociación de los ETFs es más flexible que los fondos mutuos de inversión, donde los inversores deben esperar para realizar las compras o ventas de los instrumentos. Adicionalmente, las empresas que emiten acciones de ETF acordaron con la Securities and Exchange Commission (SEC) que no publicitaran ni comercializaran sus productos como fondos mutuos. Estos ETF se comercializan únicamente como fondos listados en bolsa y valores cotizados en bolsa. Cuando los inversionistas individuales adquieren acciones en una bolsa de valores, están comprando parte del portafolio creado por la empresa.

Por otra parte, para (Abner, 2016) los ETF son fundamentalmente una forma de fondo mutuo que incluye una variedad de características más modernas. El primer ETF se cotizo en 1993 en la Bolsa de Nueva York en los Estados Unidos de América, este se denominó SPDR S&P 500. Un ETF es un fondo listado en bolsa, siendo un vehículo de inversión agrupado que cotiza en una bolsa de valores, esto implica que sus acciones se compren y vendan a un precio determinado por el mercado durante el día de negociación. Además, esta se rige por las mismas

reglas que cualquier acción cotizada; los ETF brindan transparencia sobre las clases de activos subyacentes. El principal atractivo de los ETF es la capacidad de brindar exposición a áreas que anteriormente eran demasiado caras o difíciles de alcanzar. Asimismo, los ETF pueden seguir el rendimiento de un índice subyacente. Esta estructura se puede aplicar a la inversión en metales preciosos, materias primas y otros activos únicos. Los ETF combinan muchos de los beneficios de los fondos y las acciones por igual. Al igual que un fondo mutuo, un ETF invierte en una selección de activos en su nombre, pero ya no es necesario recrear índices para una cartera. Finalmente, el inversionista simplemente tiene que elegir un ETF que ofrezca la exposición requerida.

3.2 Marco Conceptual

3.2.1 Activos

Un activo es un recurso capaz de generar un rendimiento económico futuro, En una empresa también se puede determinar que un activo tiene el valor de la masa patrimonial más los pasivos, Estos pueden haber sido adquiridos en el pasado pero generan valor a la empresa , en cuanto a los componentes del activo tenemos la clasificación en función al ciclo de explotación o tiempo éstos se dividen en activos corrientes (tiempo menor a un año) y en activos no corrientes (superior a un año) (Llorente, 2014).

3.2.2 Portafolio

Al total de los activos financieros ya mencionados en el concepto anterior se denomina portafolio o cartera de inversiones éstos pueden estar compuestos por dos tipos de instrumentos, de renta fija, de renta variable o renta mixta tales como son las monedas el efectivo las materias primas los bonos las acciones.

Para armar un portafolio debe considerarse una serie de características por ejemplo el

perfil de riesgo el tiempo esperado para que la inversión tenga un retorno esto en base a la estrategia y a los objetivos financieros Que propone como meta la empresa o el inversionista (Forbes, 2018)

3.2.3 Optimización

La acción de desarrollar una actividad de la mejor manera eso es lo que denominamos optimizar esto se puede dar en distintos ámbitos ya sea en la administración o en economía sin embargo en ambos casos es usar de la mejor manera los recursos, y elegir de un conjunto de elementos los mejores para obtener la solución más conveniente para el caso en la presente tesis se utiliza la optimización para el portafolio Es decir elegir el mejor conjunto de acciones que generen una mayor utilidad.

Este término fue inicialmente introducido por la teoría de Markowitz donde hizo referencia sobre cómo encontrar la cartera óptima de inversión distribuyendo los riesgos y los rendimientos sin embargo tiene ciertas limitaciones ya que en la práctica no suele tener el mismo desempeño que en la teoría. (Westreicher, Economipedia, 2020)

3.2.4 Retorno

Podemos explicar el retorno como el dinero que un inversor desea obtener de un negocio por la inyección de su capital además se puede decir que el retorno es igual en la ganancia bruta del negocio y es una ratio que marca la eficiencia financiera en una operación. El retorno tiene varios usos tanto como para inversores como para empresarios ya que les da una visión de cuán rentable es el negocio para el caso de inversores y para el caso de los empresarios les da un indicador que puede hacer atractivo para mostrar a los inversores pero también es cierto que si un retorno es muy bajo no es atractivo y genera bajas ganancias, finalmente es necesario considerar otro tipo de indicadores adicionales para tener una mejor apreciación del mercado y

una decisión más acertada de inversión. (Westreicher, Economipedia, 2020)

3.2.5 Diversificación

El término de diversificación hace referencia a convertir lo homogéneo en heterogéneo en finanzas se utiliza este término para describir una estrategia en donde el principal objetivo es reducir el riesgo específico ya que no es posible reducir el riesgo sistemático, También se utiliza este término para describir la diversificación empresarial en donde el objetivo además de reducir los riesgos es aumentar las autoridades (Arias, 2020).

3.2.6 Mercado de capitales

Es un lugar no físico en el que los agentes que quieren reunir su propio capital y los que quieren invertir realizan transacciones. El mercado se divide en tres grupos, estos son el mercado de bonos, la renta fija, este es el carácter negociado también conocido como el mercado de crédito, tenemos el mercado de valores que se refiere a las acciones compradas a una empresa, a partir de este diferentes índices podemos medir la capitalización bursátil, el PIB, los índices bursátiles de los países Derivado de y, por último, el mercado de crédito y derivados este mercado cumple con la clasificación dada la más amplia y diversidad de instrumentos financieros (Ucha, 2015).

3.2.7 Métrica

Las métricas se denominan indicadores de valoración que ayudan a proporcionar información sobre el valor real y la rentabilidad de una empresa, las métricas se utilizan en las empresas para evitar errores en la toma de decisiones, también para ayudar a analizar cuál es el mejor momento para invertir y hacer previsiones, en base a estos datos, en los recursos humanos y financieros Existen diferentes tipos de métricas en las distintas áreas de la empresa, ya sea en términos de productividad o de aspectos operativos sobre el terreno (Doc Path, 2022).

3.2.8 Acciones ETF

Las acciones de los ETF son instrumentos de renta variable que cotizan en mercados secundarios son también carteras como diversificación funcional y están indexados, los ETF son también activos muy accesibles para los inversores, replican el comportamiento de determinados índices, como el NASDAQ 100, el IBEX 35, te flexible, ya que no hay que esperar a valorar la cartera y tener un precio para finalizar la operación, mientras que se pueden obtener cotizaciones en tiempo real y ese precio es fácilmente contrastable, ya que el mercado proporciona información diaria del precio del valor líquido en tiempo real.

Los ETF permiten diversificación, bajos costes de negociación y el uso de estrategias de cobertura de instrumentos derivados. (Bolsa de valores de Madrid, 2022).

4. HIPÓTESIS

Los fondos del tipo 3 de las AFPs peruanas pueden optimizarse a través de la estrategia de minimización de riesgo considerando el modelo Conditional Value at Risk.

CAPITULO II

1. DISEÑO DE INVESTIGACIÓN

El diseño de investigación para este estudio se basó en un enfoque cuantitativo, centrado en el análisis de datos financieros y la aplicación de modelos matemáticos y estadísticos para desarrollar una estrategia de minimización de riesgo para el portafolio del Fondo Tipo 3 de las AFPs peruanas, utilizando el Conditional Value at Risk (CVaR) durante el periodo 2015-2021. Este enfoque cuantitativo permitirá obtener resultados objetivos y medibles, fundamentales para la toma de decisiones en el ámbito financiero.

Para llevar a cabo la investigación, se recolecto datos financieros históricos de los diferentes instrumentos que componen el portafolio del Fondo Tipo 3, incluyendo información sobre rentabilidad, volatilidad y correlaciones entre los activos. Estos datos serán analizados utilizando técnicas estadísticas y econométricas, como el análisis de series temporales y la regresión, para identificar patrones y factores que influyen en el comportamiento del portafolio y su nivel de riesgo.

En este estudio, se empleó el enfoque del Conditional Value at Risk (CVaR) para medir y minimizar el riesgo financiero en el portafolio del Fondo Tipo 3 de las AFPs peruanas. Dado que el CVaR es capaz de aplicarse a distribuciones de pérdidas no simétricas y considera eventos extremos y poco probables, se utilizará para obtener una medida de riesgo más completa y precisa en comparación con el Value at Risk (VaR) tradicional.

La investigación se centrará en calcular el CVaR siguiendo el marco matemático propuesto por Rockafellar & Uryasev (2002) y Sarykalin et al. (2008). Primero, se aplicará la función F_{α} , que incorpora el nivel de confianza α y la distribución de pérdidas, para calcular el CVaR en diferentes escenarios de inversión. A continuación, se utilizará la ecuación de

optimización propuesta por Sarykalin et al. (2008) para minimizar el CVaR y, así, identificar la estrategia óptima de diversificación y asignación de activos en el portafolio.

Para llevar a cabo este análisis, se recolectarán datos financieros históricos de los instrumentos que componen el portafolio del Fondo Tipo 3, y se aplicarán técnicas estadísticas y econométricas para identificar patrones y factores que influyen en el comportamiento del portafolio y su nivel de riesgo. Además, se evaluarán diferentes escenarios de inversión y se calculará el CVaR correspondiente a cada uno de ellos.

Una vez identificada la estrategia óptima para minimizar el CVaR, se analizará su impacto en la rentabilidad ajustada al riesgo y otros indicadores de desempeño financiero. La investigación también discutirá las implicaciones prácticas de la aplicación del CVaR en la gestión de riesgos de las AFPs peruanas, las limitaciones del enfoque y las posibles áreas de investigación futura. Una vez calculado el CVaR para el portafolio del Fondo Tipo 3, se desarrollará una estrategia de minimización de riesgo que considere la diversificación de activos, la optimización de la asignación de capital y la implementación de instrumentos de cobertura, si fuera necesario. La estrategia propuesta será evaluada a través de una serie de indicadores de desempeño, como la rentabilidad ajustada al riesgo, la estabilidad del portafolio y la probabilidad de alcanzar los objetivos de inversión a largo plazo.

Asimismo, en el presente estudio, se utilizó el cálculo de retornos logarítmicos diarios para analizar el desempeño del fondo tipo 3 compuesto por varios ETFs, los cuales incluyen empresas líderes de diferentes países. Este enfoque permitirá capturar el comportamiento de los mercados globales y las tendencias económicas en el análisis del fondo de inversión.

Como parte del diseño de investigación, se calcularon los retornos logarítmicos diarios del fondo tipo 3 utilizando la fórmula de rendimientos compuestos continuamente, donde

$R_{(t+1)}$ representa el retorno logarítmico diario, y $S_{(t+1)}$ y S_t corresponden al valor del fondo en los días $t+1$ y t , respectivamente. Los retornos logarítmicos se emplearán en el análisis de series temporales y en la modelización del riesgo, ya que poseen propiedades estadísticas deseables, como la aditividad y la normalidad asintótica.

Se recopilaron datos históricos de los ETFs propuestos y se analizará el comportamiento de los retornos logarítmicos a lo largo del tiempo, prestando especial atención a eventos económicos significativos, como la pandemia del Covid-19 en 2020, y su impacto en el desempeño del fondo tipo 3. A través de este análisis, se buscará identificar patrones y factores que influyan en el comportamiento del fondo y su nivel de riesgo.

Además, se exploraron estrategias de diversificación y asignación de activos para mejorar la rentabilidad ajustada al riesgo del fondo tipo 3, considerando la información proporcionada por los retornos logarítmicos diarios. También se evaluarán las implicaciones prácticas de los resultados obtenidos para los inversores, las AFPs y los reguladores financieros, así como las posibles limitaciones y áreas de investigación futura.

Por último, se llevó a cabo una validación de la estrategia de minimización de riesgo utilizando datos fuera de la muestra, para asegurar que los resultados sean robustos y aplicables en diferentes contextos de mercado. También se discutirán las implicaciones prácticas de la investigación para los inversores, las AFPs y los reguladores financieros, así como las posibles limitaciones y áreas de investigación futura.

1.1 Fondo tipo 3 de las AFPs

Según la Superintendencia de Banca, Seguros y AFP, un fondo de pensiones de tipo 3 o fondo de revalorización de capital. Estos fondos se componen en un 80% de renta variable y están diseñados para buscar rendimientos a largo plazo. Por ello, el fondo puede estar expuesto a

una mayor volatilidad y riesgo. Los fondos de tipo 3 invierten principalmente en instrumentos de renta variable y pretenden obtener mejores rendimientos que otros tipos de fondos de inversión (Manini, 2021).

Para el Banco Central de Reserva, los fondos de tipo 3, también conocidos como fondos de revalorización del capital, pueden invertir hasta el 80% en instrumentos de renta variable (acciones). La composición de cada fondo AFP es por grupos de productos clasificados en renta fija, renta variable, productos cubiertos y a corto plazo (Altamirano, 2019).

1.2 Descripción de la data

En el presente estudio, utilizamos lo descrito y desarrollado en el Departamento de Administradoras de Fondos de Pensiones y, como se determinó anteriormente, analizamos el Fondo 3, compuesto por activos de renta variable (renta variable), calificados como activos de riesgo. Por lo anterior, para replicar la composición del Fondo 3 de la Administradora de Fondos de Pensiones, se utilizan instrumentos denominados fondos mutuos cotizados, los cuales reflejan renta variable (renta variable). Esto se debe al carácter reservado de la composición del Fondo 3 de la Administradora de Fondos de Pensiones.

Con el propósito de lograr este objetivo, se utilizará un conjunto de instrumentos que replique a la composición del fondo 3 de las Administradoras de Fondo de Pensiones, esto conjunto de instrumentos seleccionados son trece, los cuales son activos representativos. Los activos seleccionados se muestran en la siguiente tabla.

Tabla 1 – Activos seleccionados

Categoría	País	Exchange -Traded Funds	Ticker
Renta Variable Extranjera	Italia	iShares MSCI Italy ETF	EWI
	España	iShares MSCI Spain ETF	EWP
	Brasil	iShares MSCI Brazil ETF	EWZ
	Chile	iShares MSCI Chile ETF	ECH
	México	iShares MSCI Mexico ETF	EWW

	Colombia	iShares MSCI Colombia ETF	ICOL
	China	iShares MSCI China ETF	MCHI
	Japón	iShares MSCI Japan ETF	EWJ
	Estados Unidos	iShares U.S. Equity Factor ETF	LRGF
	Reino Unido	iShares MSCI United Kingdom ETF	EWU
	Francia	iShares MSCI France ETF	EWQ
	Alemania	iShares MSCI Germany ETF	EWG
Renta Variable Local	Perú	iShares MSCI Peru ETF	EPU

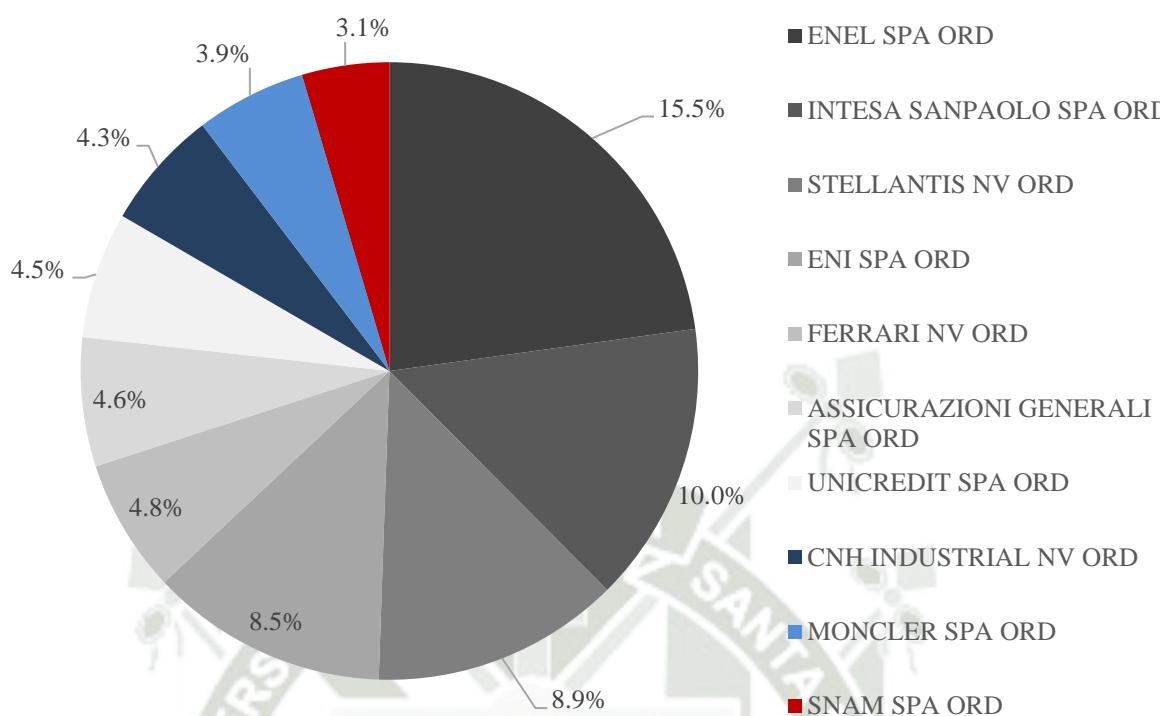
Elaboración propia

Cada instrumento seleccionado, replica el comportamiento de la renta variable (acciones) de cada país, cada instrumento representa a las acciones más cotizadas de cada país.

Italia - iShares MSCI Italy ETF

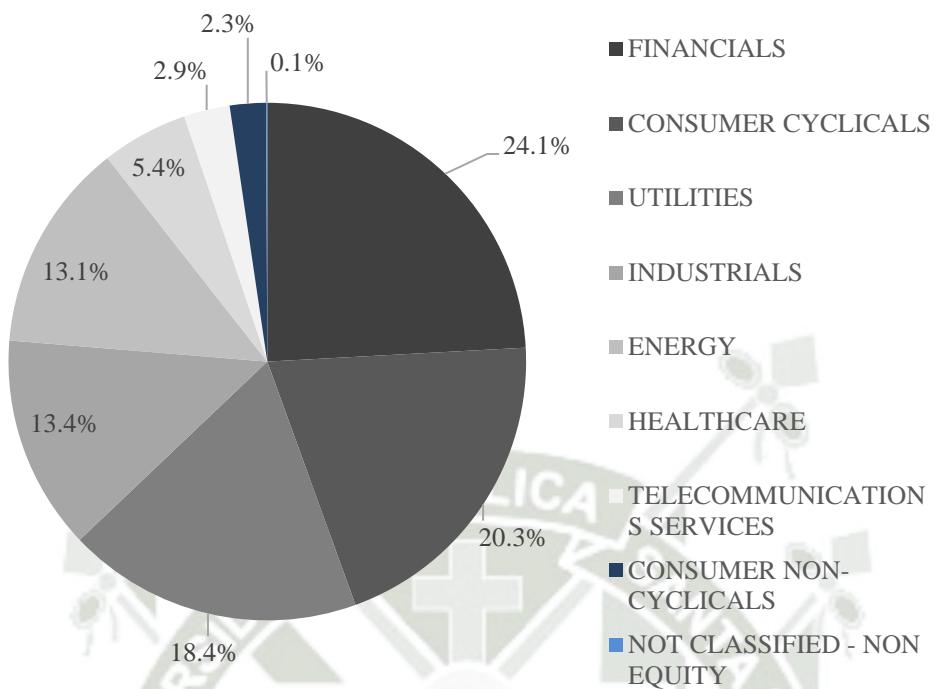
El *iShares MSCI Italy ETF*, representa a las acciones más cotizadas de Italia al 2021, este instrumento cuenta con posiciones en empresas como Enel Spa Ord, Intesa Sanpaolo Spa Ord, Stellantis Nv Ord, etc. Además, este instrumento realiza un desglose por sectores como Financials, Consumer Cyclicals, etc.

Figura 5: Principales posiciones del iShares MSCI Italy ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 6: Desglose por sectores del iShares MSCI Italy ETF, 2021

Fuente: Refinitiv Workspace (2021)

Elaboración propia

España - iShares MSCI Spain ETF

El *iShares MSCI Spain ETF*, representa a las acciones más cotizadas de España al 2021, este instrumento cuenta con posiciones en empresas como Iberdrola Sa Ord, Banco Santander Sa Ord, Banco Bilbao Vizcaya Argentaria Sa Ord, Cellnex Telecom Sa Ord, etc. Además, este instrumento realiza un desglose por sectores como Financials, Utilities, Industrials, Telecommunications services, Energy, etc.

Figura 7: Principales posiciones del iShares MSCI Spain ETF, 2021

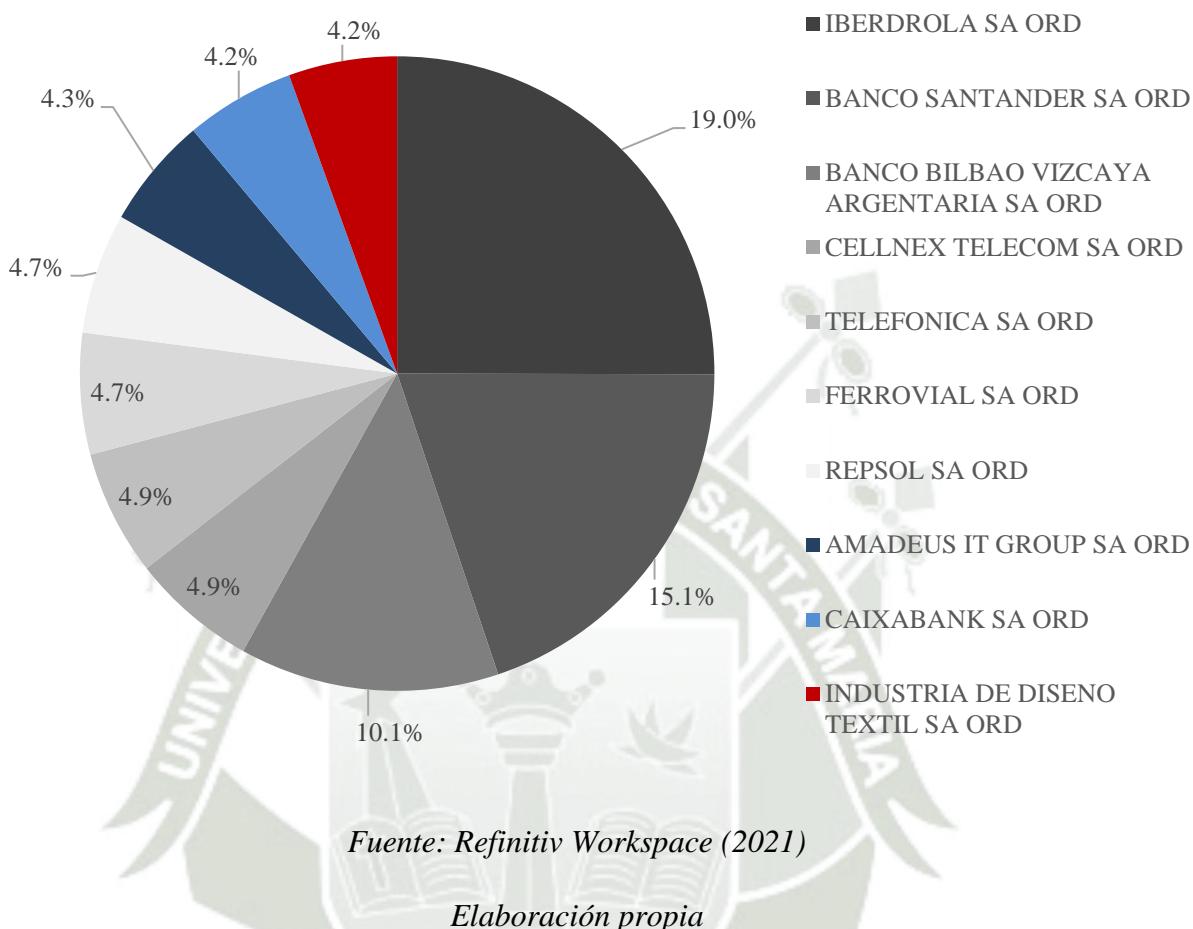
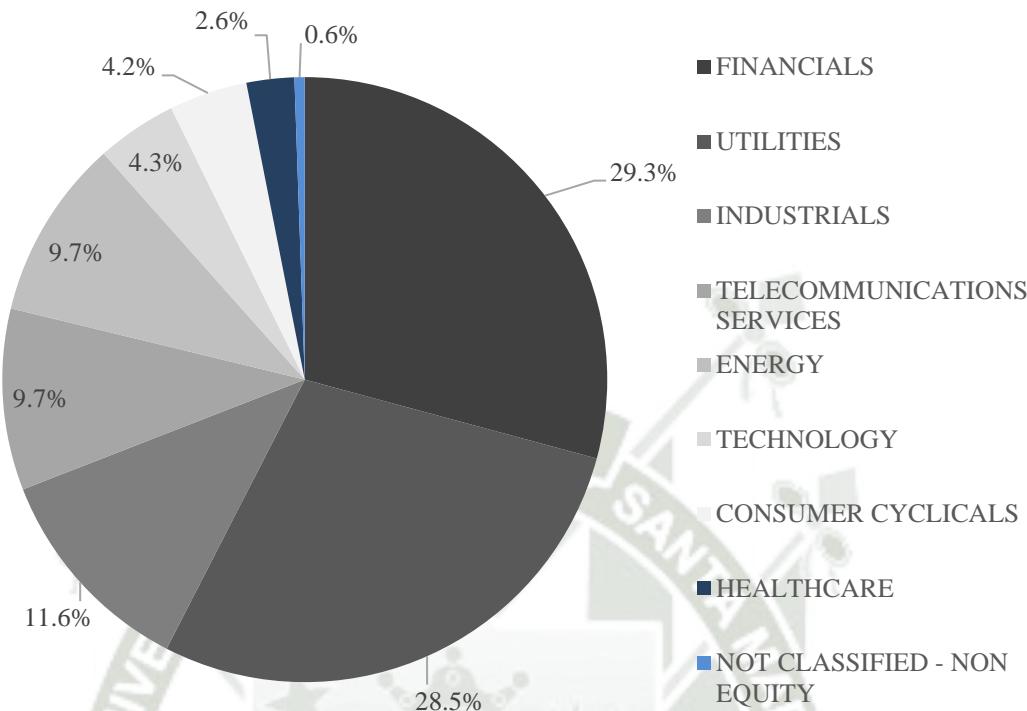


Figura 8: Desglose por sectores del iShares MSCI Spain ETF, 2021

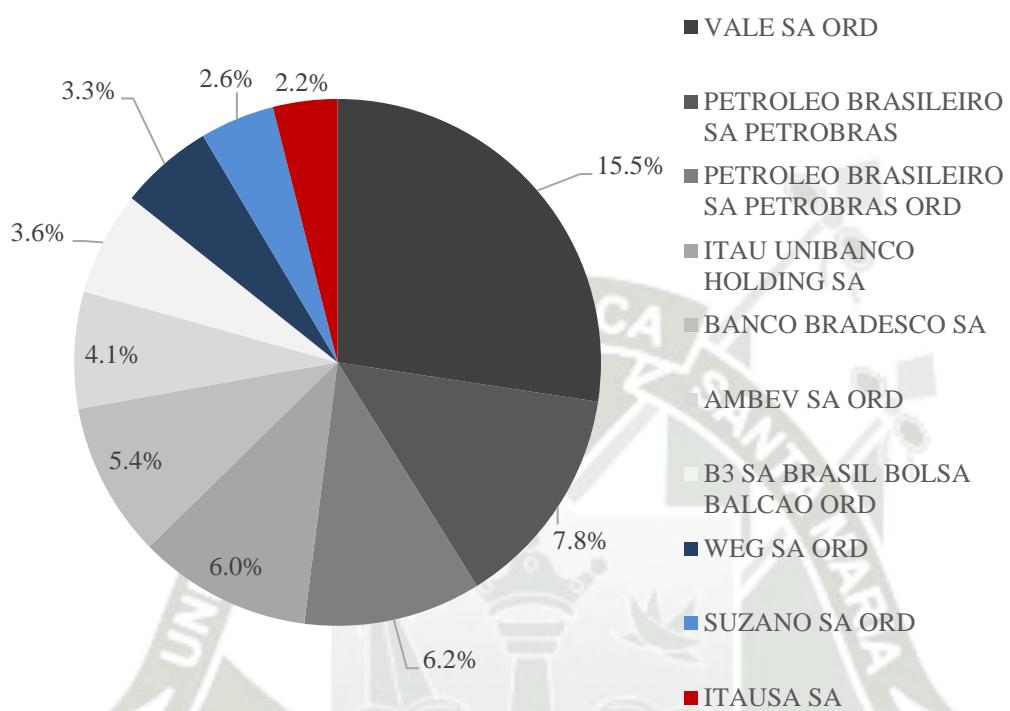
Fuente: Refinitiv Workspace (2021)

Elaboración propia

Brasil - iShares MSCI Brazil ETF

El *iShares MSCI Brazil ETF*, representa a las acciones más cotizadas del Brasil al 2021, este instrumento cuenta con posiciones en empresas como Vale Sa Ord, Petroleo Brasileiro Sa Petrobras, Itau Unibanco Holding Sa, etc. Además, este instrumento realiza un desglose por sectores como Basic materials, Financials, Energy, Consumer non-cyclicals, Industrials, etc.

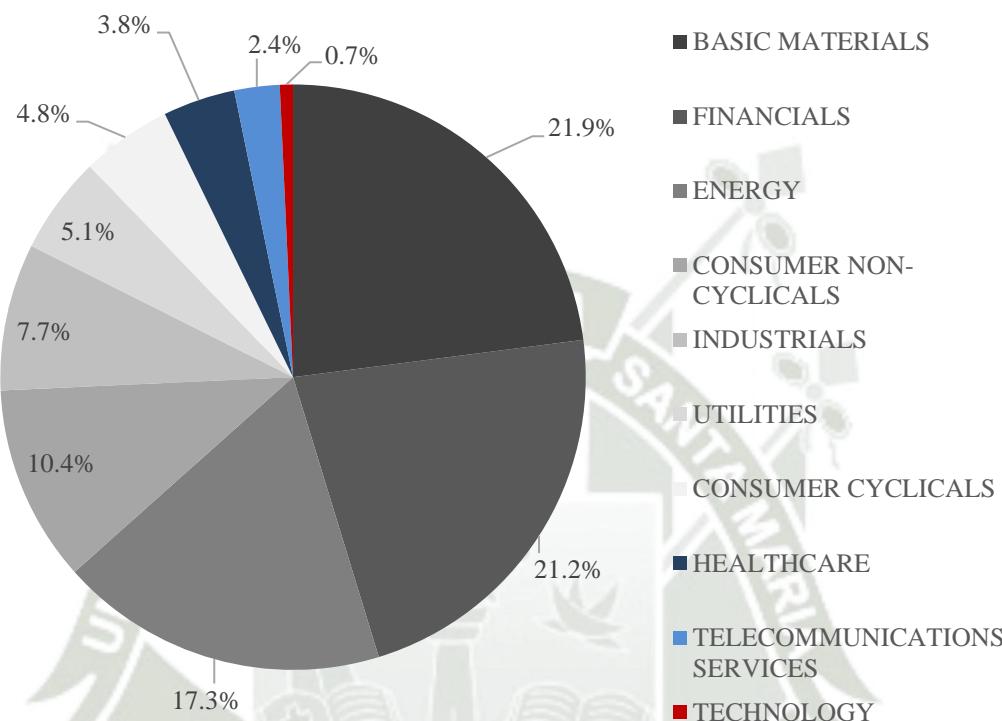
Figura 9: Principales posiciones del iShares MSCI Brazil ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 10: Desglose por sectores del iShares MSCI Brazil ETF, 2021



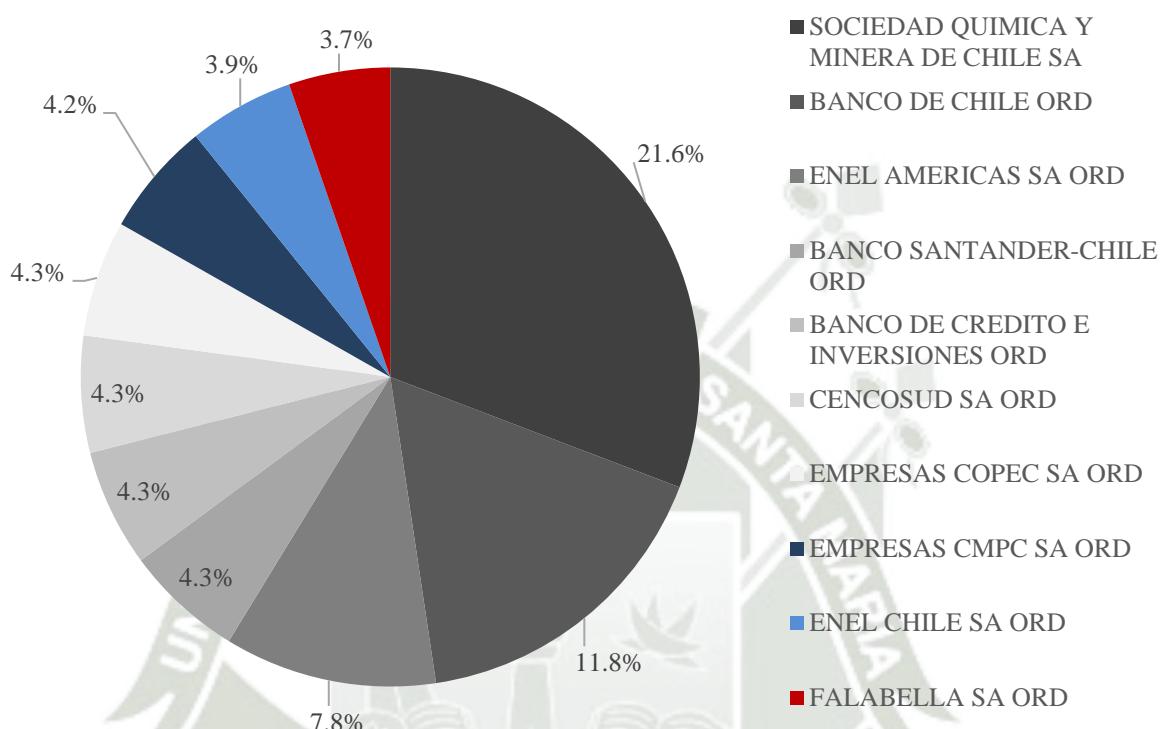
Fuente: Refinitiv Workspace (2021)

Elaboración propia

Chile - iShares MSCI Chile ETF

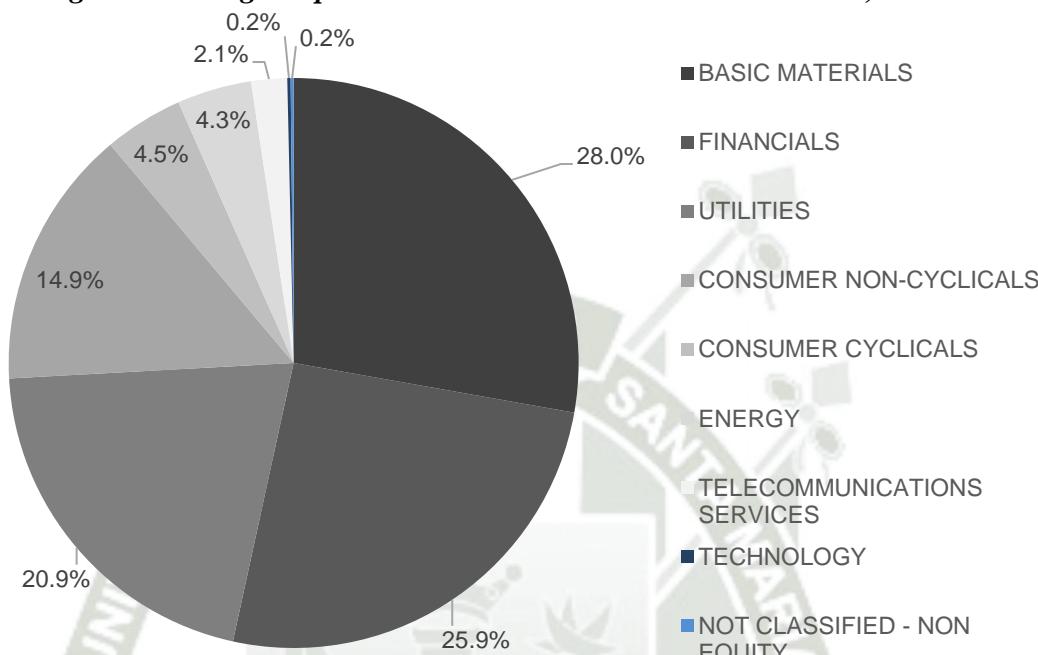
El *iShares MSCI Chile ETF*, representa a las acciones más cotizadas de Chile al 2021, este instrumento cuenta con posiciones en empresas como Sociedad Química y Minera de Chile Sa, Banco de Chile Ord, Enel Americas Sa Ord, etc. Además, este instrumento realiza un desglose por sectores como Basic Materials, Financials, Utilities, Consumer non-cyclicals, Consumer cyclicals, etc.

Figura 11: Principales posiciones del iShares MSCI Chile ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 12: Desglose por sectores del iShares MSCI Chile ETF, 2021

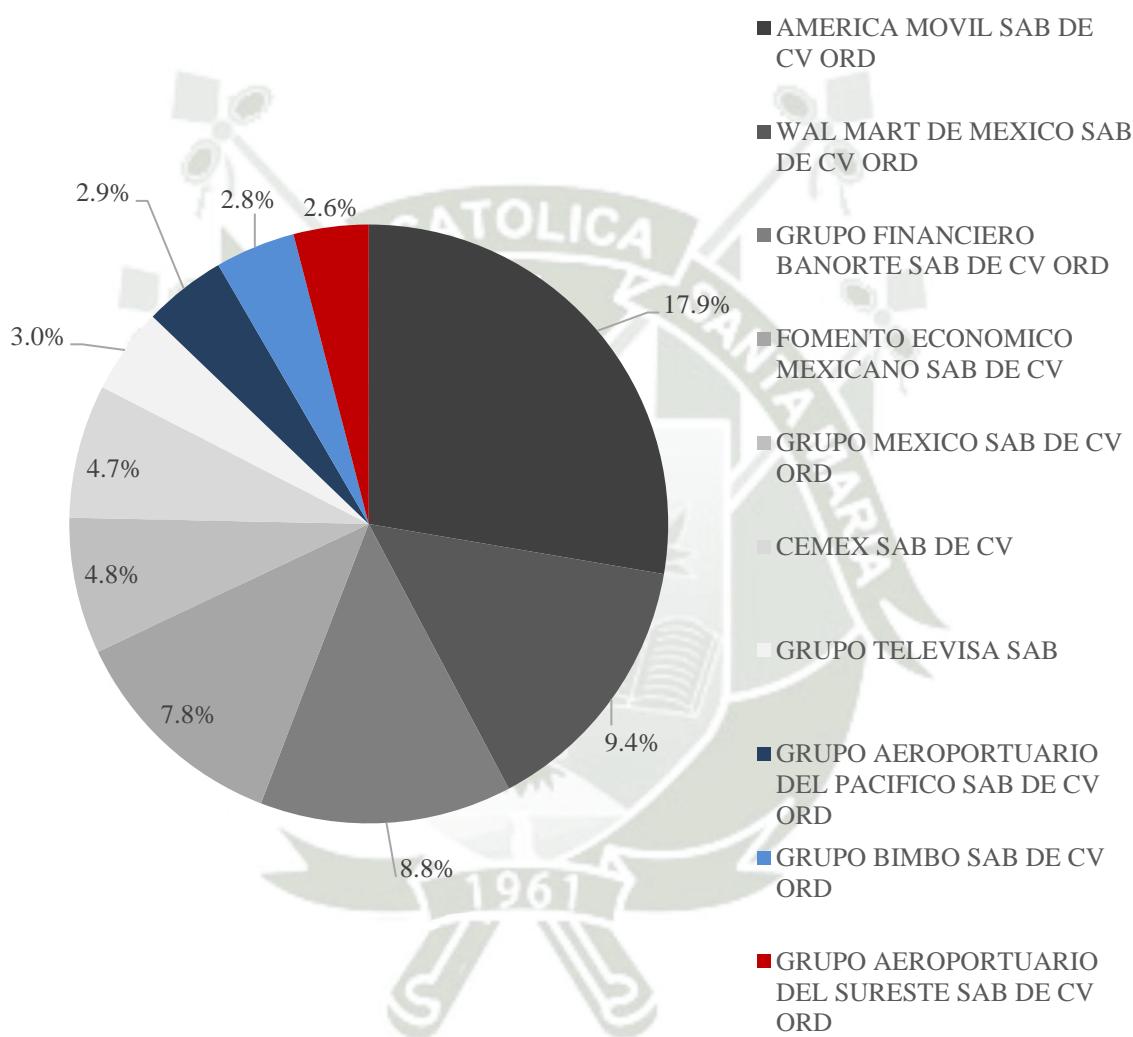
Fuente: Refinitiv Workspace (2021)

Elaboración propia

México - iShares MSCI Mexico ETF

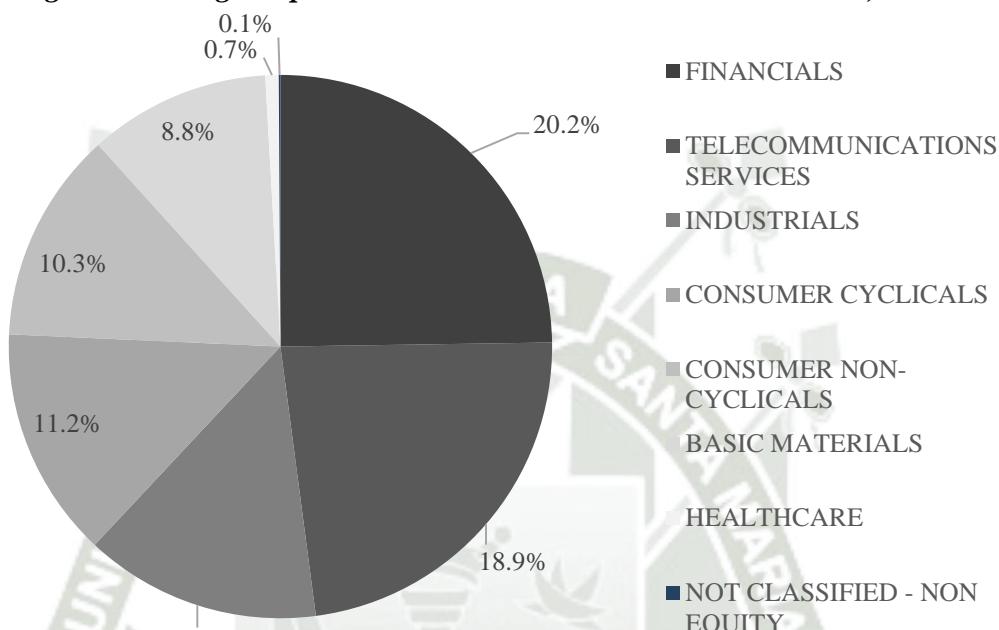
El *iShares MSCI Mexico ETF*, representa a las acciones más cotizadas de México al 2021, este instrumento cuenta con posiciones en empresas como America Movil Sab de Cv, Wal Mart de Mexico Sab de Cv, Grupo Financiero Banorte Sab de Cv, etc. Además, este instrumento realiza un desglose por sectores como Financials, Telecommunications services, Industrials, Consumer cyclicals, etc.

Figura 13: Principales posiciones del iShares MSCI Mexico ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 14: Desglose por sectores del iShares MSCI Mexico ETF, 2021

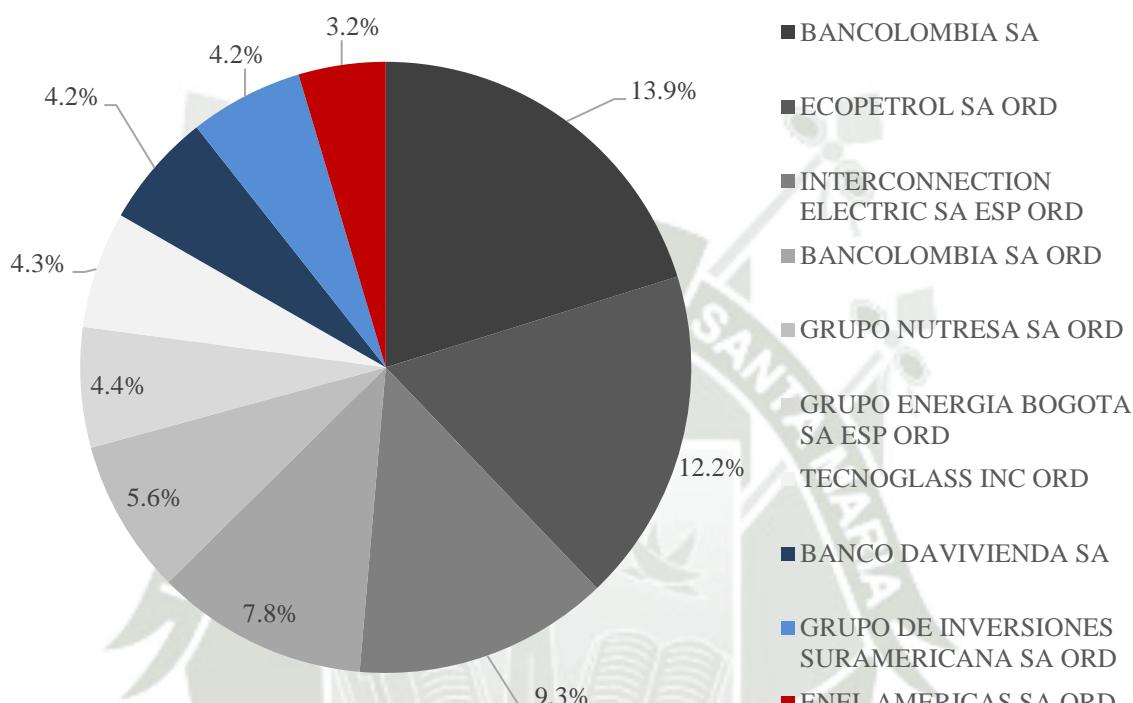
Fuente: Refinitiv Workspace (2021)

Elaboración propia

Colombia - iShares MSCI Colombia ETF

El *iShares MSCI Colombia ETF*, representa a las acciones más cotizadas de Colombia al 2021, este instrumento cuenta con posiciones en empresas como Bancolombia Sa, Ecopetrol Sa Ord, Interconnection Electric Sa Esp Ord, etc. Además, este instrumento realiza un desglose por sectores como Financials, Energy, Utilities, Consumer non-cyclical, Basic materials, etc.

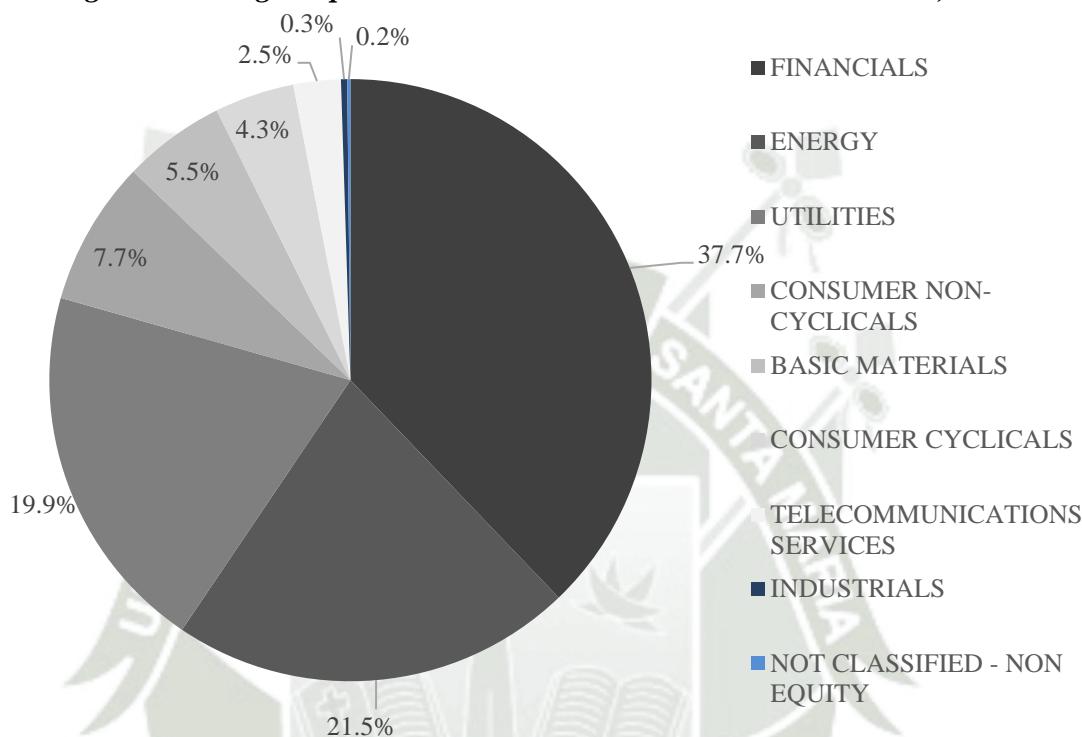
Figura 15: Principales posiciones del iShares MSCI Colombia ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 16: Desglose por sectores del iShares MSCI Colombia ETF, 2021



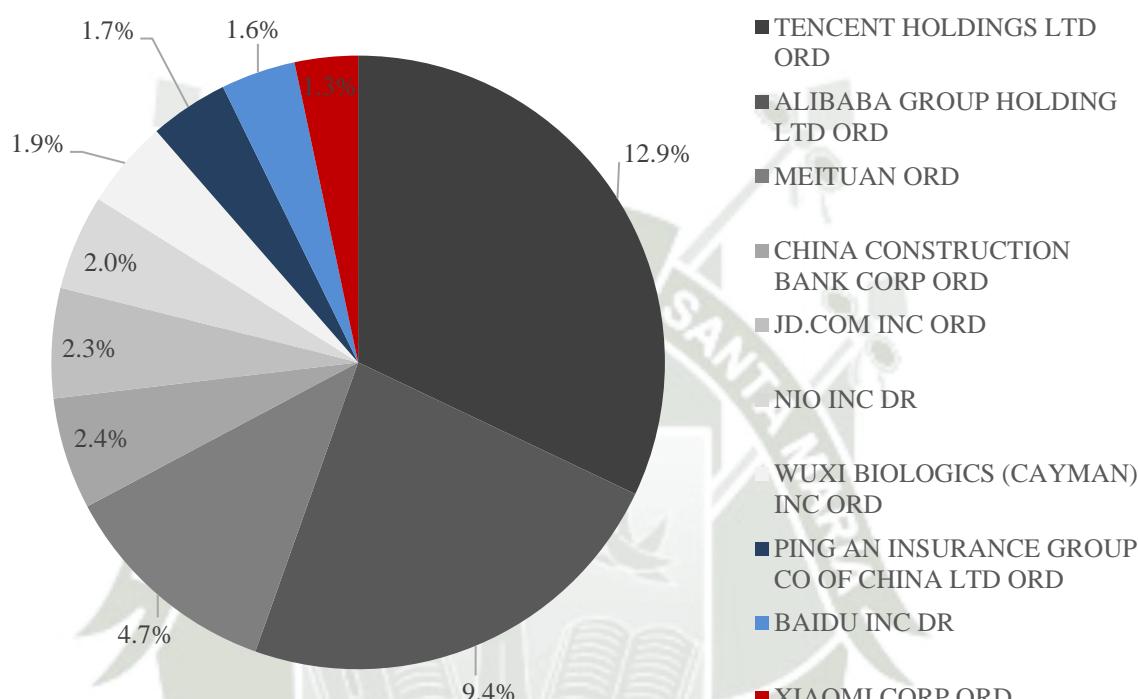
Fuente: Refinitiv Workspace (2021)

Elaboración propia

China - iShares MSCI China ETF

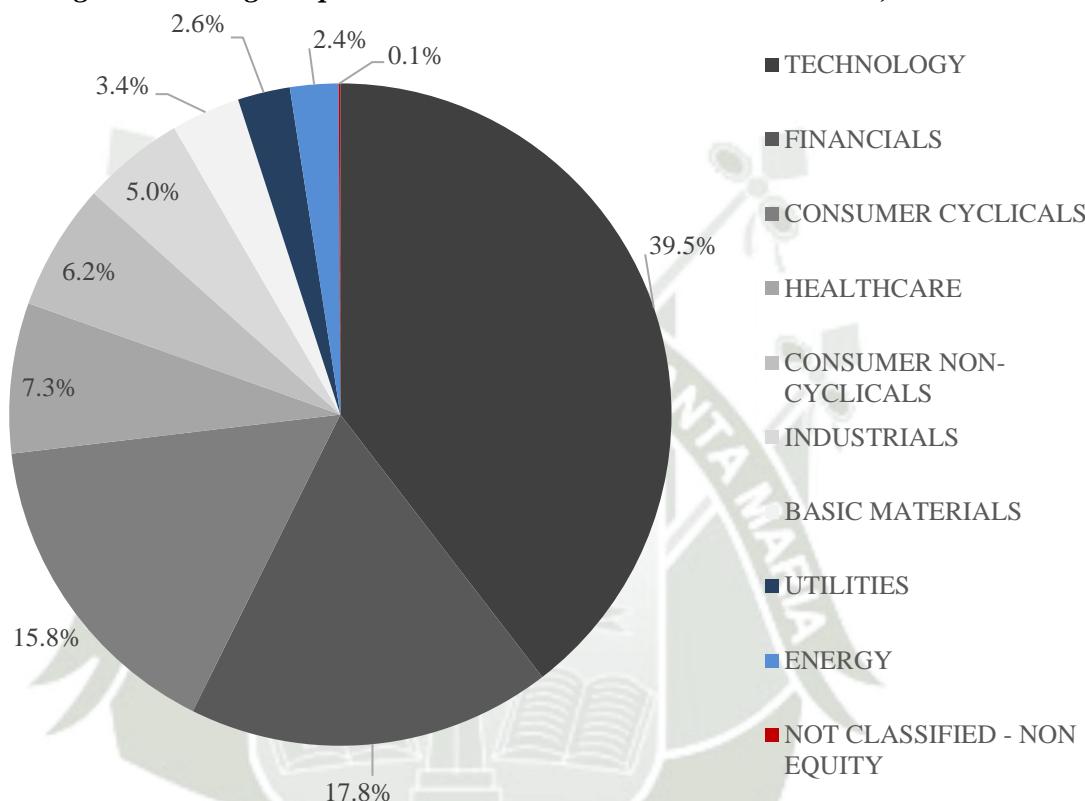
El *iShares MSCI China ETF*, representa a las acciones más cotizadas de China al 2021, este instrumento cuenta con posiciones en empresas como Tencent Holdings Ltd, Alibaba Group Holding Ltd, Meituan Ord, etc. Además, este instrumento realiza un desglose por sectores como Technology, Financials, Consumer cyclical, Healthcare, Consumer non-cyclical, etc.

Figura 17: Principales posiciones del iShares MSCI China ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 18: Desglose por sectores del iShares MSCI China ETF, 2021

Fuente: Refinitiv Workspace (2021)

Elaboración propia

Japón - iShares MSCI Japan ETF

El *iShares MSCI Japan ETF*, representa a las acciones más cotizadas de Japón al 2021, este instrumento cuenta con posiciones en empresas como Toyota Motor Corp, Sony Group Corp, Keyence Corp, Recruit Holdings Co Ltd, etc. Además, este instrumento realiza un desglose por sectores como Industrials, Consumer cyclicals, Technology, Financials, Healthcare,

etc.

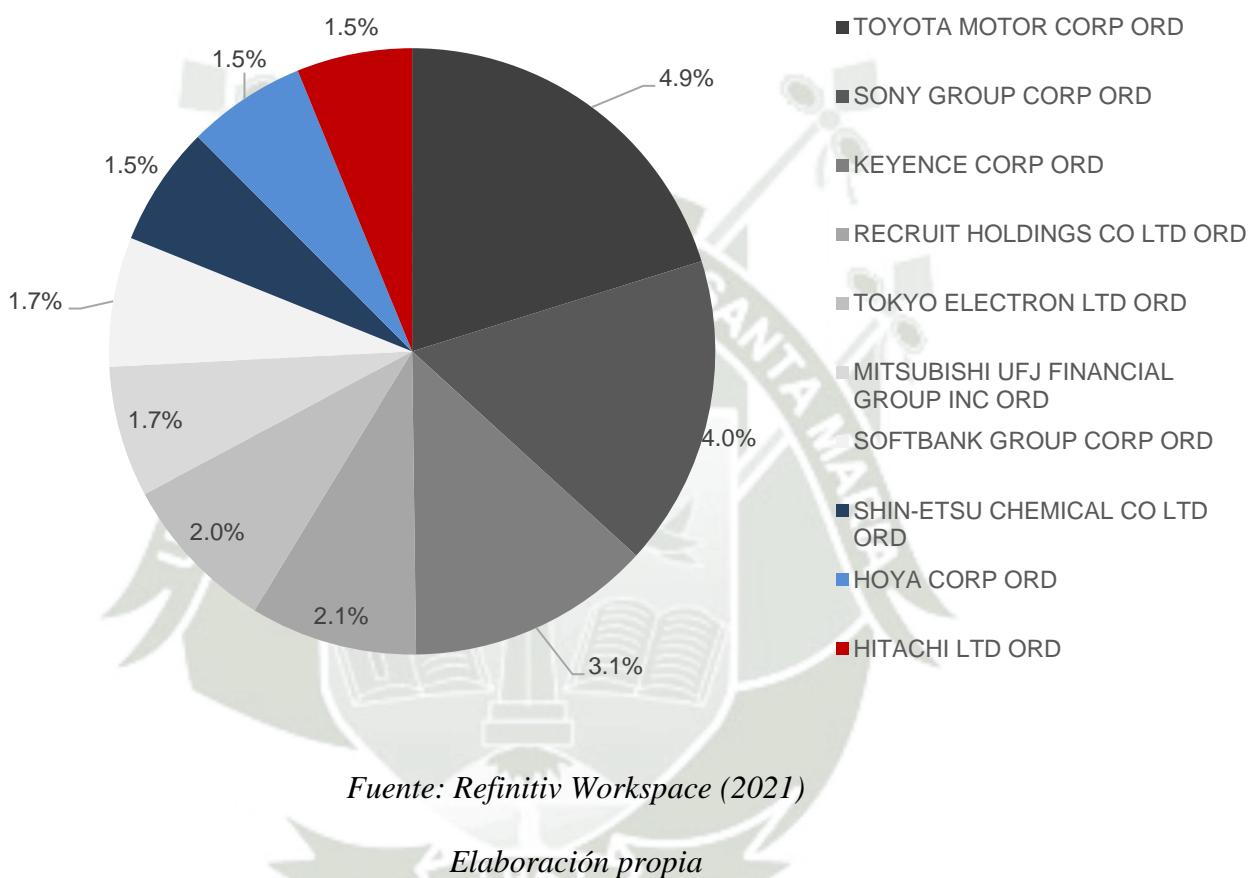
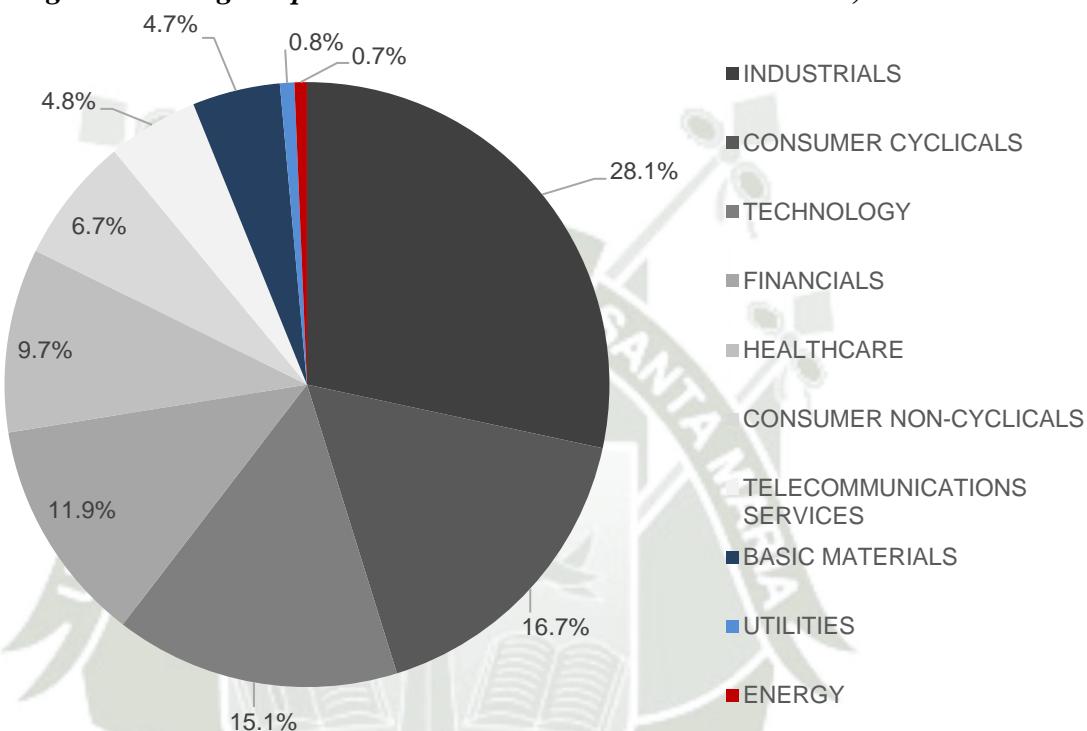
Figura 19: Principales posiciones del iShares MSCI Japan ETF, 2021

Figura 20: Desglose por sectores del iShares MSCI China ETF, 2021

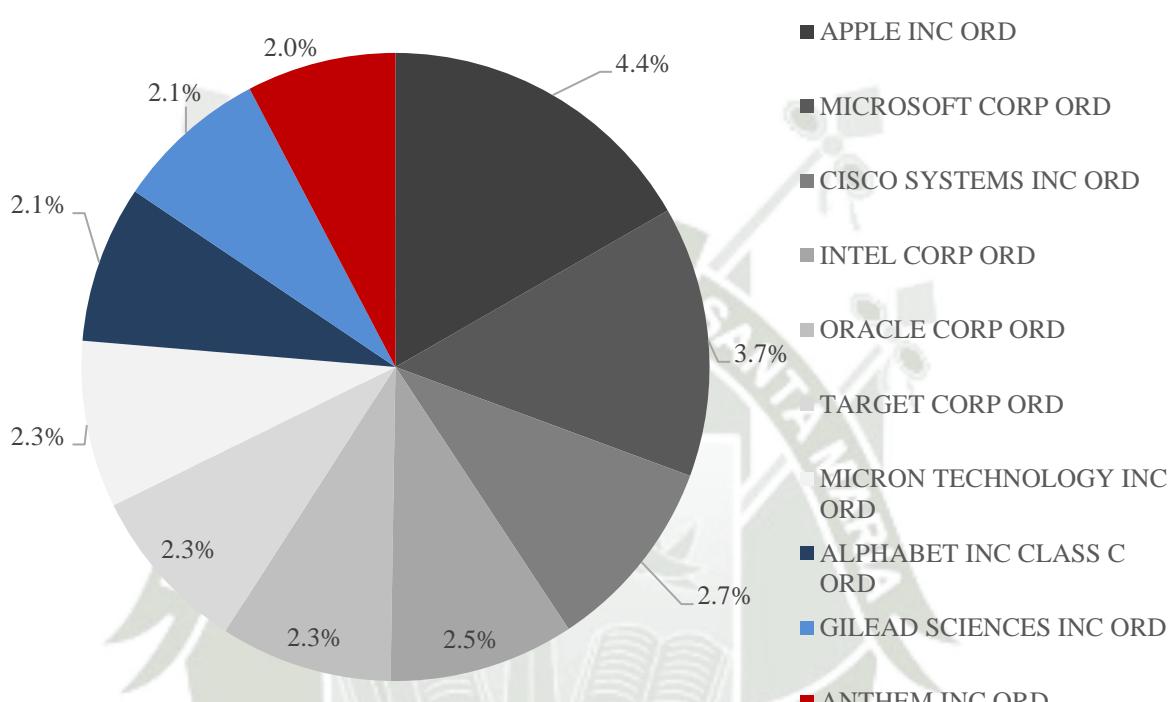
Fuente: Refinitiv Workspace (2021)

Elaboración propia

Estados Unidos - iShares U.S. Equity Factor ETF

El *iShares U.S. Equity Factor ETF*, representa a las acciones más cotizadas de Estados Unidos al 2021, este instrumento cuenta con posiciones en empresas como Apple Inc, Microsoft Corp, Cisco Systems Inc, etc. Además, este instrumento realiza un desglose por sectores como Technology, Consumer cyclical, Healthcare, Financials, Industrials, etc.

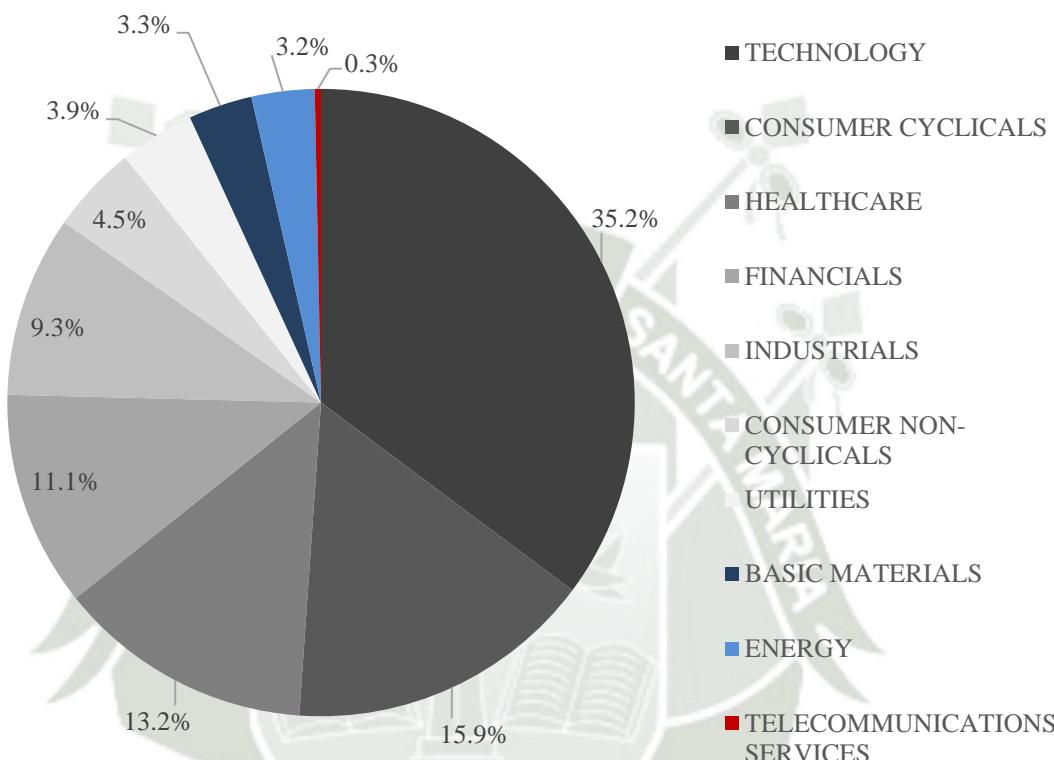
Figura 21: Principales posiciones del iShares U.S. Equity Factor ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 22: Desglose por sectores del iShares U.S. Equity Factor ETF, 2021



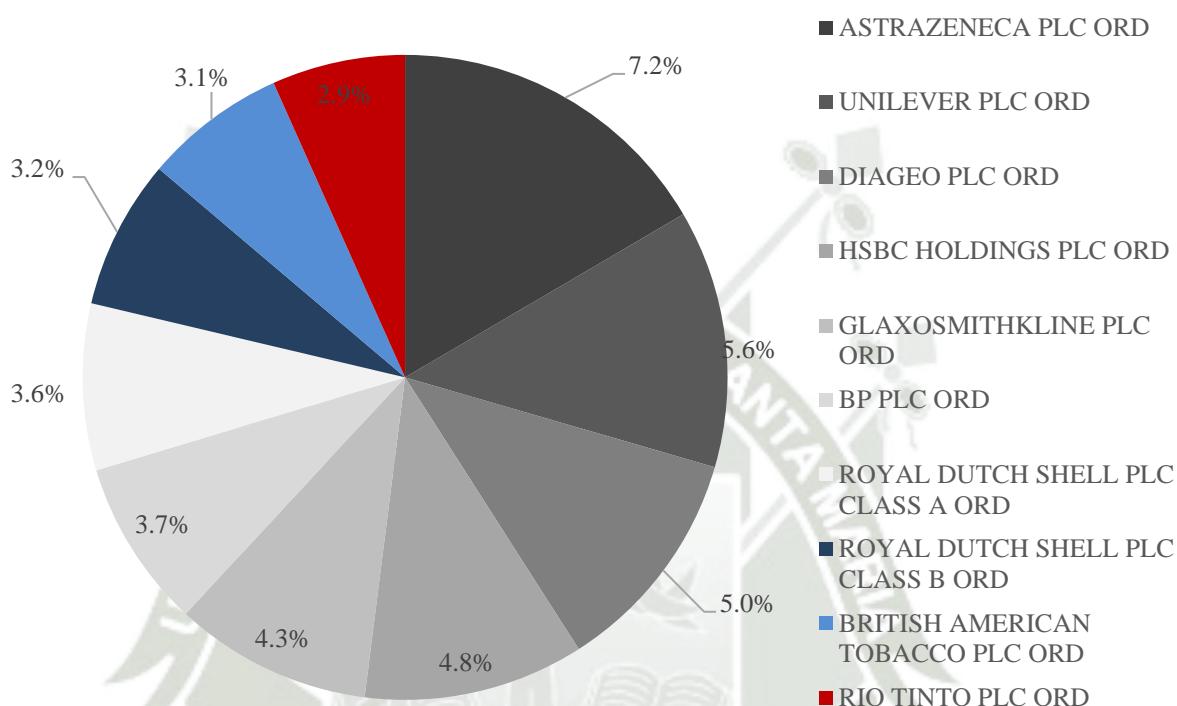
Fuente: Refinitiv Workspace (2021)

Elaboración propia

Reino Unido - iShares MSCI United Kingdom ETF

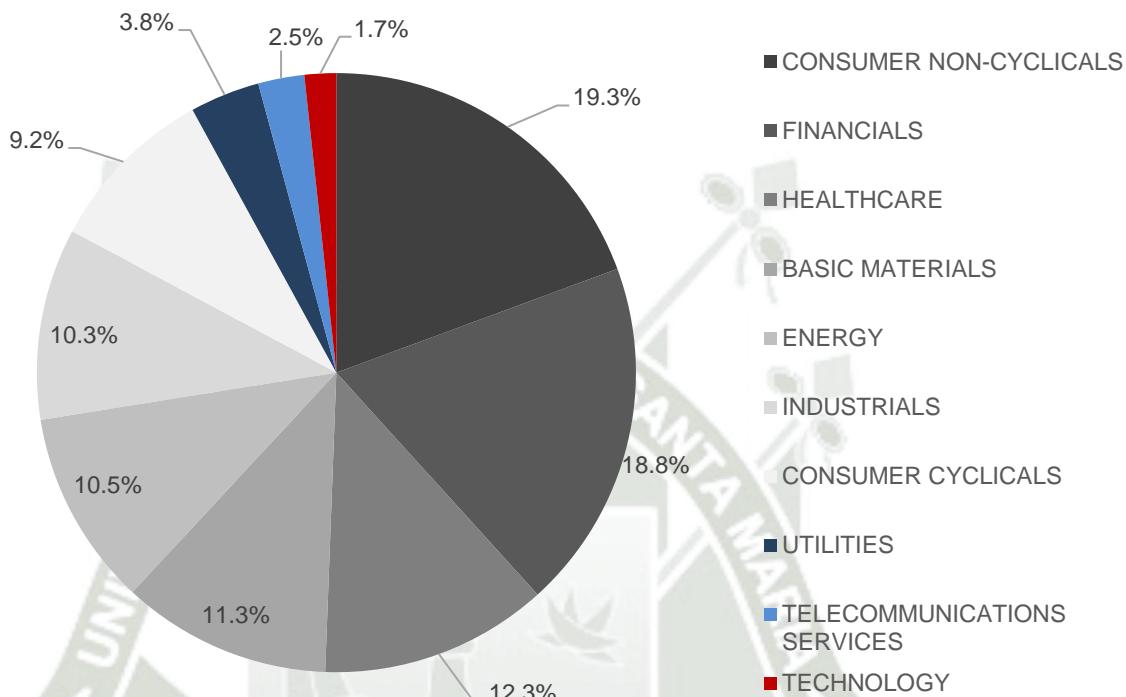
El iShares MSCI United Kingdom ETF, representa a las acciones más cotizadas de Reino Unido al 2021, este instrumento cuenta con posiciones en empresas como AstraZeneca Plc, Uniliver Plc, Diageo Plc, Hsbc Holdings Plc, etc. Además, este instrumento realiza un desglose por sectores como Consumer non-cyclical, Financials, Healthcare, Basic materials, Energy, etc.

Figura 23: Principales posiciones del iShares MSCI United Kingdom ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 24: Desglose por sectores del iShares MSCI United Kingdom ETF, 2021

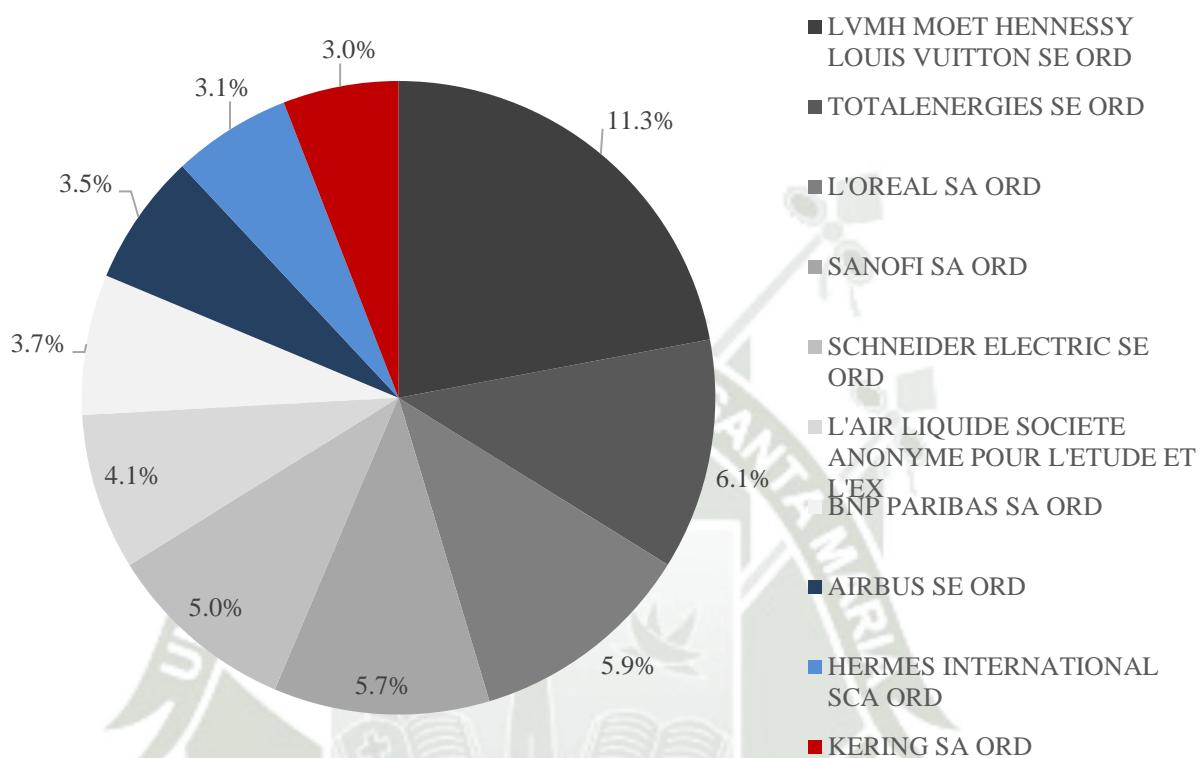
Fuente: Refinitiv Workspace (2021)

Elaboración propia

Francia - iShares MSCI France ETF

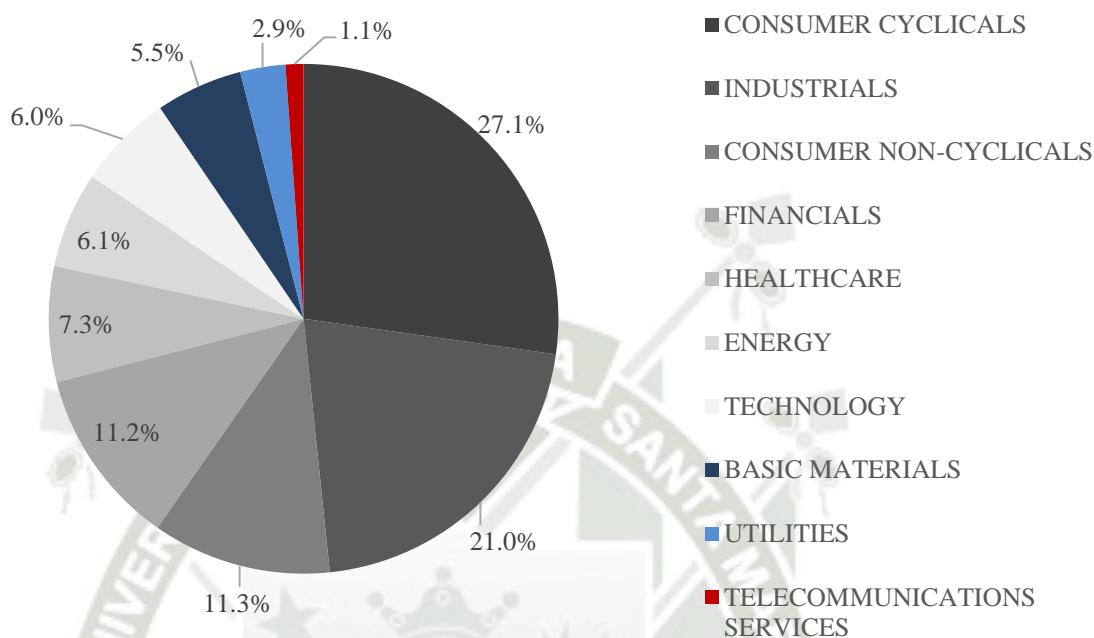
El *iShares MSCI France ETF*, representa a las acciones más cotizadas de Francia al 2021, este instrumento cuenta con posiciones en empresas como Lvmh Moet Hennessy Louis Vuitton Se, Total Energies Se, L'oreal Sa, etc. Además, este instrumento realiza un desglose por sectores como Consumer cyclical, Industrials, Consumer non-cyclical, Financials, Healthcare, etc.

Figura 25: Principales posiciones del iShares MSCI France ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 26: Desglose por sectores del iShares MSCI France ETF, 2021

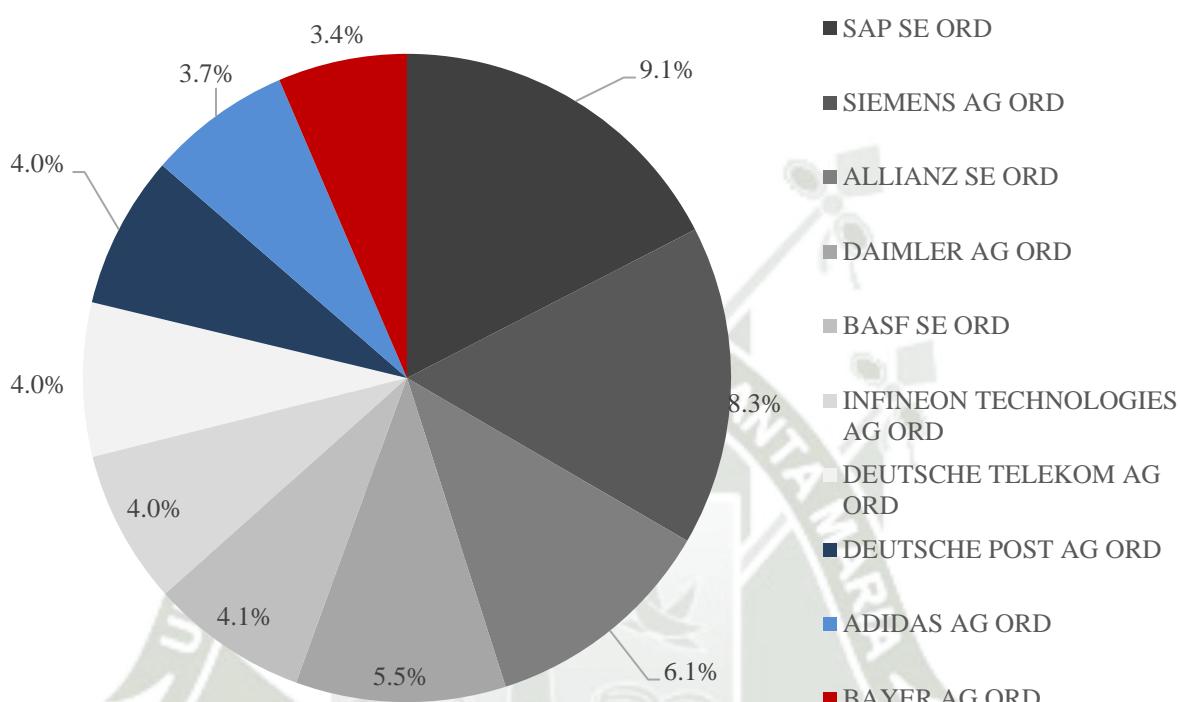
Fuente: Refinitiv Workspace (2021)

Elaboración propia

Alemania - iShares MSCI Germany ETF

El *iShares MSCI Germany ETF*, representa a las acciones más cotizadas de Alemania al 2021, este instrumento cuenta con posiciones en empresas como Sap Se, Siemens Ag, Allianz Se, etc. Además, este instrumento realiza un desglose por sectores como Consumer cyclical, Technology, Industrials, Financials, Healthcare, etc.

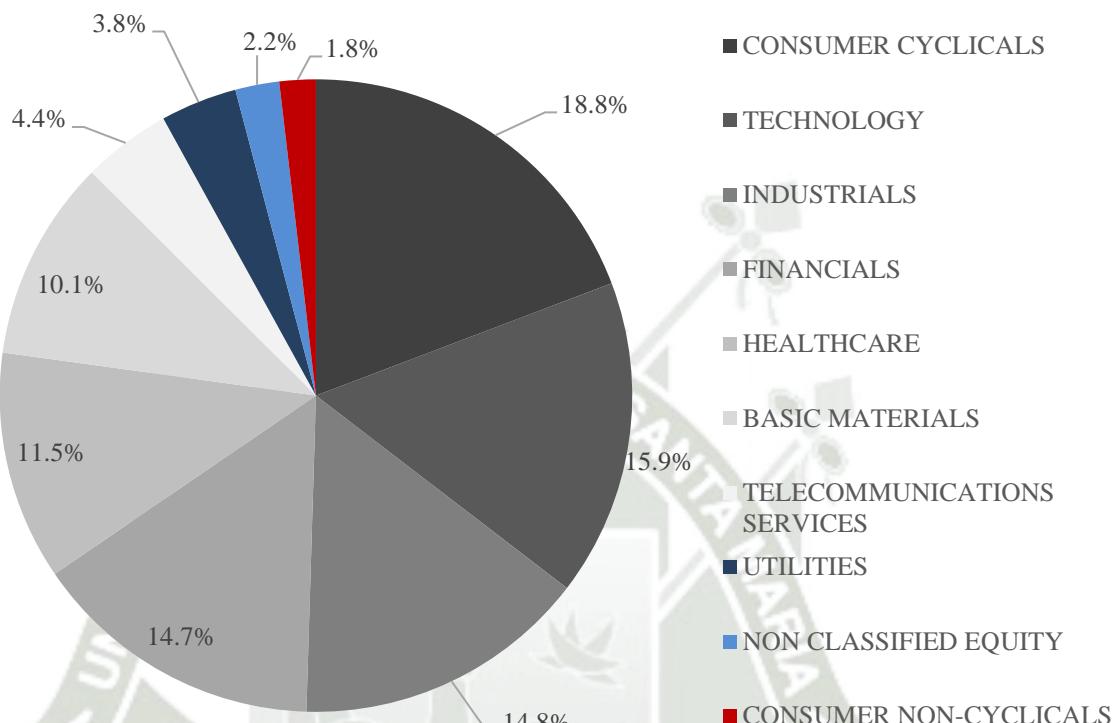
Figura 27: Principales posiciones del iShares MSCI Germany ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 28: Desglose por sectores del iShares MSCI Germany ETF, 2021



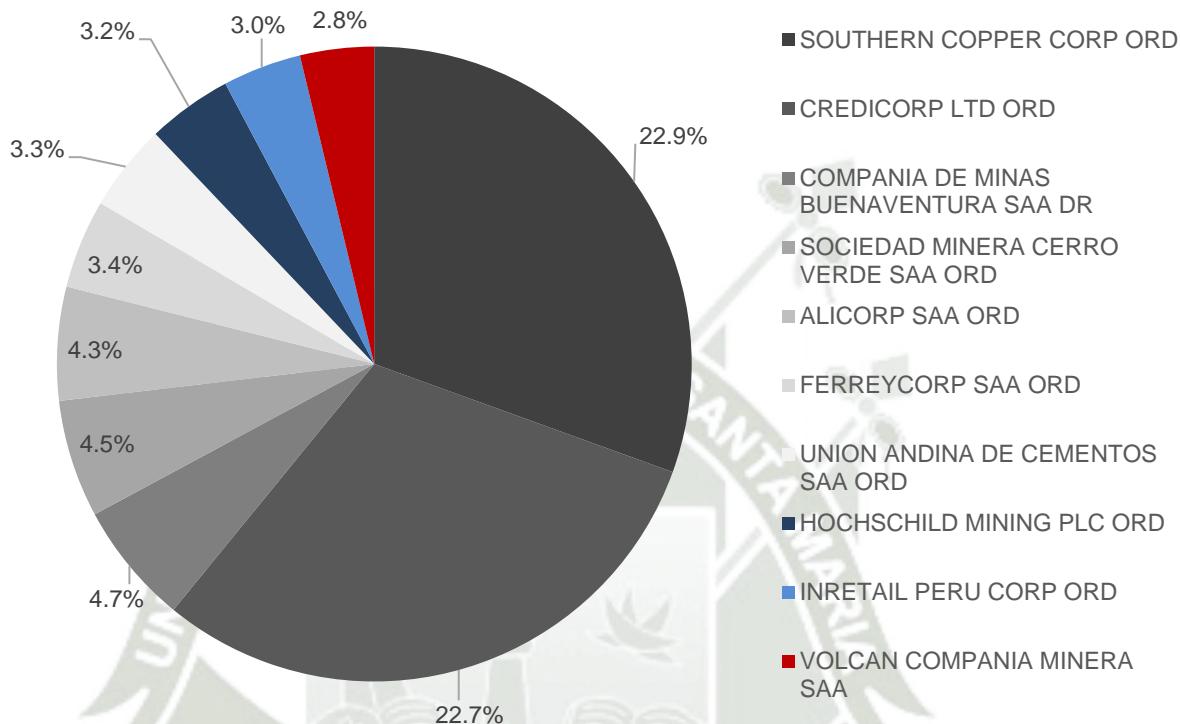
Fuente: Refinitiv Workspace (2021)

Elaboración propia

Perú - iShares MSCI Peru ETF

El *iShares MSCI Peru ETF*, representa a las acciones más cotizadas del Perú al 2021, este instrumento cuenta con posiciones en empresas como Southern Copper Corp, Credicorp Ltd, Compañía de Minas Buenaventura Saa, etc. Además, este instrumento realiza un desglose por sectores como Basic materials, Financials, Consumer non-cyclicals, Industrials, Energy, etc.

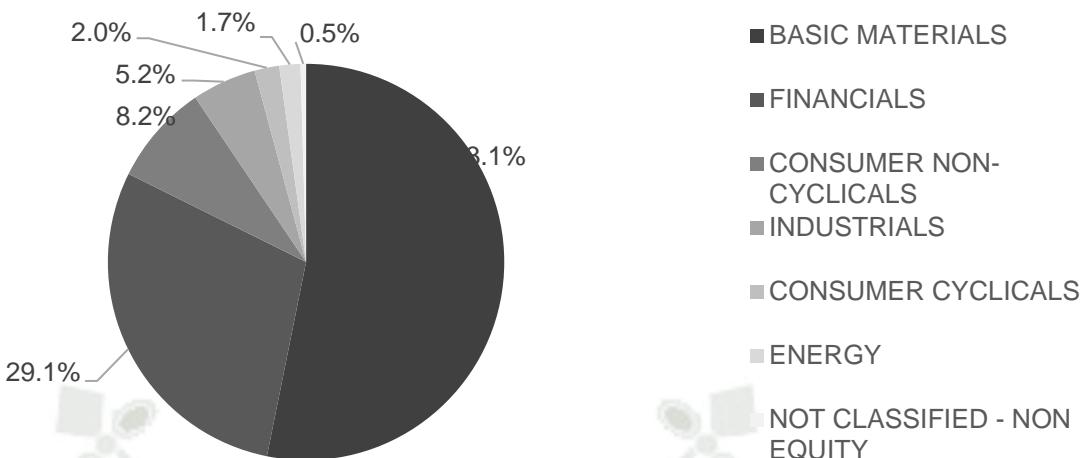
Figura 29: Principales posiciones del iShares MSCI Peru ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

Figura 30: Desglose por sectores del iShares MSCI Peru ETF, 2021



Fuente: Refinitiv Workspace (2021)

Elaboración propia

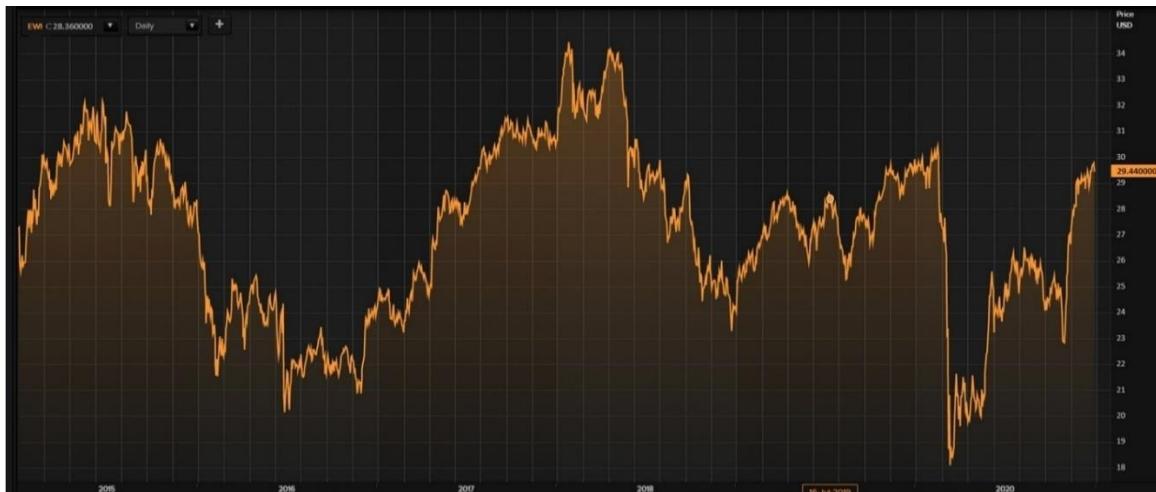
Precios de los ETFs

De la presente serie de datos, es necesario examinar la tendencia de cada ETF, analizando los niveles de precios históricos de los instrumentos de inversión. Es por ello que, se presentan los siguientes gráficos:

Italia - iShares MSCI Italy ETF

Los precios históricos del *iShares MSCI Italy ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI Italy ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI Italy ETF* empezó a dar señales en la recuperación en los precios.

Figura 31: Evolución de los precios históricos del iShares MSCI Italy ETF, 2015 – 2020 (precio dólares americanos)

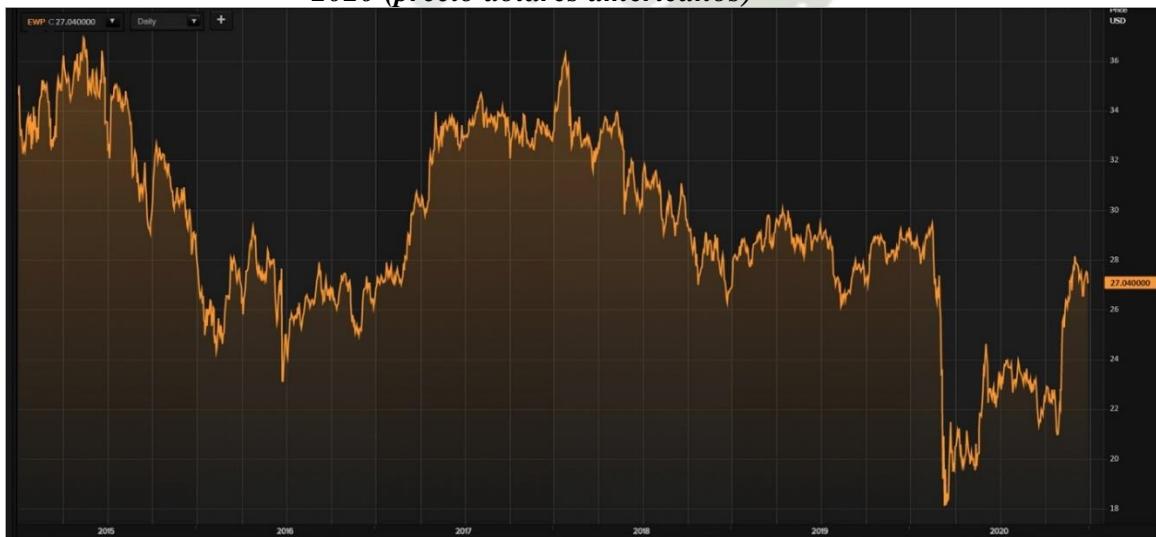


Fuente: Refinitiv Workspace (2022)

España - iShares MSCI Spain ETF

Los precios históricos del iShares MSCI Spain ETF, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI Spain ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI Spain ETF*, empezó a dar señales en la recuperación en los precios.

Figura 32: Evolución de los precios históricos del iShares MSCI Spain ETF, 2015 – 2020 (precio dólares americanos)

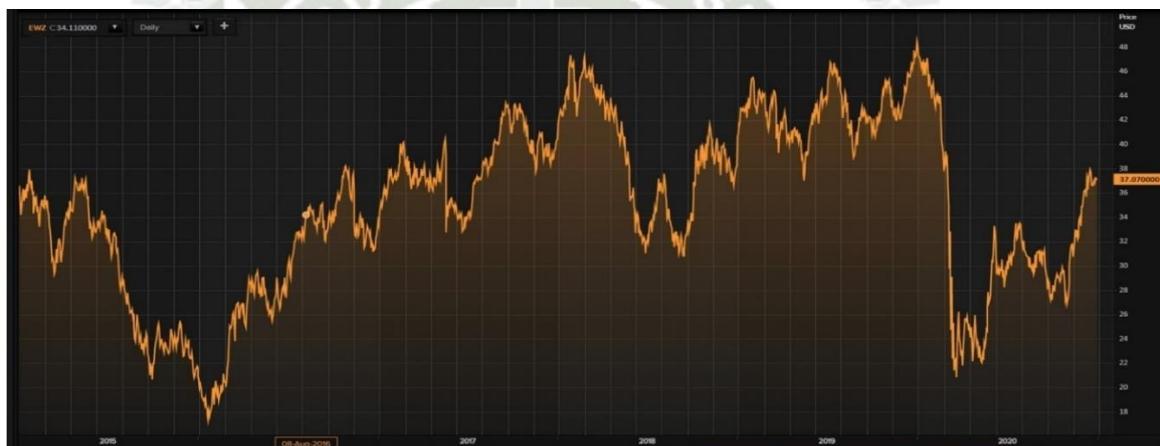


Fuente: Refinitiv Workspace (2022)

Brasil - iShares MSCI Brazil ETF

Los precios históricos del *iShares MSCI Brazil ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI Brazil ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI Brazil ETF*, empezó a dar señales en la recuperación en los precios.

Figura 33: Evolución de los precios históricos del iShares MSCI Brazil ETF, 2015 – 2020 (precio dólares americanos)

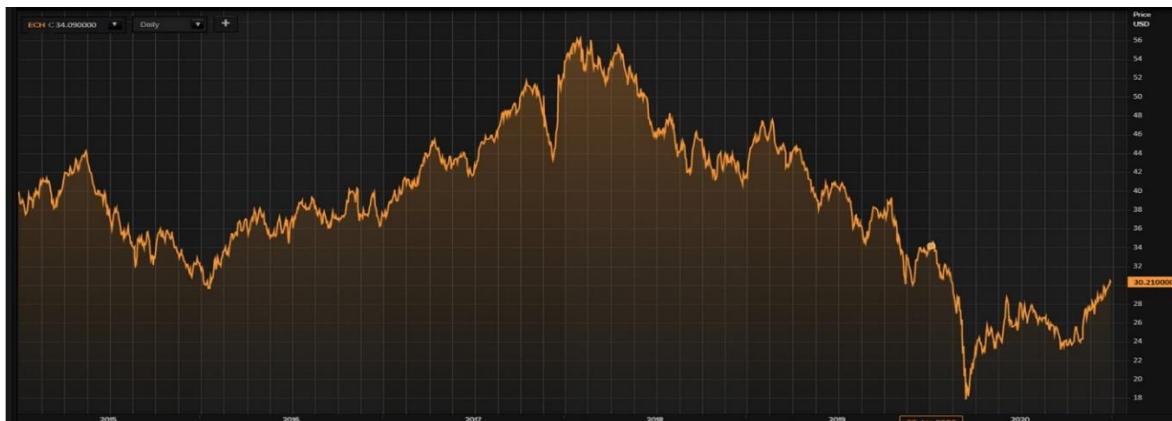


Fuente: Refinitiv Workspace (2022)

Chile - iShares MSCI Chile ETF

Los precios históricos del *iShares MSCI Chile ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI Chile ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI Chile ETF*, empezó a dar señales en la recuperación en los precios.

Figura 34: Evolución de los precios históricos del iShares MSCI Chile ETF, 2015 – 2020 (precio dólares americanos)

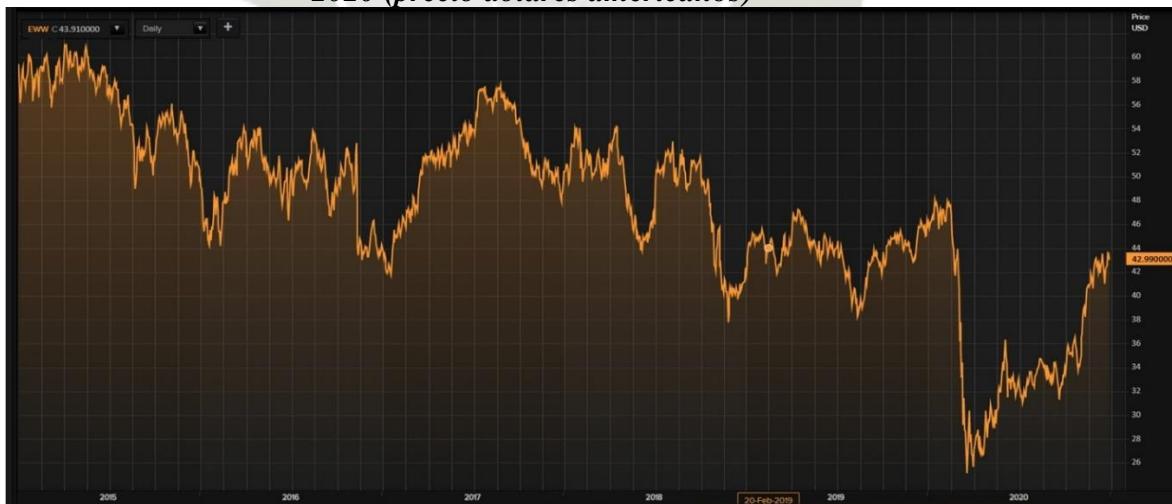


Fuente: Refinitiv Workspace (2022)

México - iShares MSCI Mexico ETF

Los precios históricos del *iShares MSCI Mexico ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI Mexico ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI Mexico ETF*, empezó a dar señales en la recuperación en los precios.

Figura 35: Evolución de los precios históricos del iShares MSCI Mexico ETF, 2015 – 2020 (precio dólares americanos)



Fuente: Refinitiv Workspace (2022)

Colombia - iShares MSCI Colombia ETF

Los precios históricos del iShares MSCI Colombia ETF, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del iShares MSCI Colombia ETF, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI Colombia ETF*, comenzó a dar señales en la recuperación en los precios.

Figura 36: Evolución de los precios históricos del iShares MSCI Colombia ETF, 2015 – 2020 (precio dólares americanos)



Fuente: Refinitiv Workspace (2022)

China - iShares MSCI China ETF

Los precios históricos del iShares MSCI China ETF, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del iShares MSCI China ETF, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el iShares MSCI China ETF, comenzó a dar señales en la recuperación en los precios

Figura 37: Evolución de los precios históricos del iShares MSCI China ETF, 2015 – 2020 (precio dólares americanos)

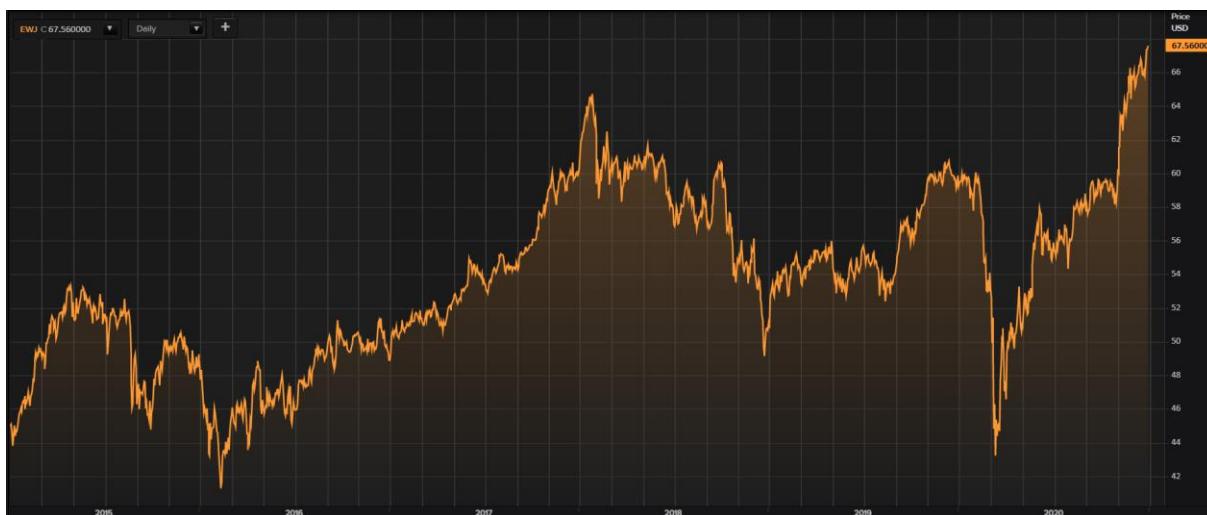


Fuente: Refinitiv Workspace (2022)

Japón - iShares MSCI Japan ETF

Los precios históricos del *iShares MSCI Japan ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI Japan ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI Japan ETF*, empezó a dar señales en la recuperación en los precios a niveles de prepandemia.

Figura 38: Evolución de los precios históricos del iShares MSCI Japan ETF, 2015 – 2020 (precio dólares americanos)



Fuente: Refinitiv Workspace (2022)

Estados Unidos - iShares U.S. Equity Factor ETF

Los precios históricos del *iShares U.S. Equity Factor ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares U.S. Equity Factor ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares U.S. Equity Factor ETF*, comenzó a dar señales en la recuperación en los precios a niveles de prepandemia.

Figura 39: Evolución de los precios históricos del iShares U.S. Equity Factor ETF, 2015 – 2020 (precio dólares americanos)

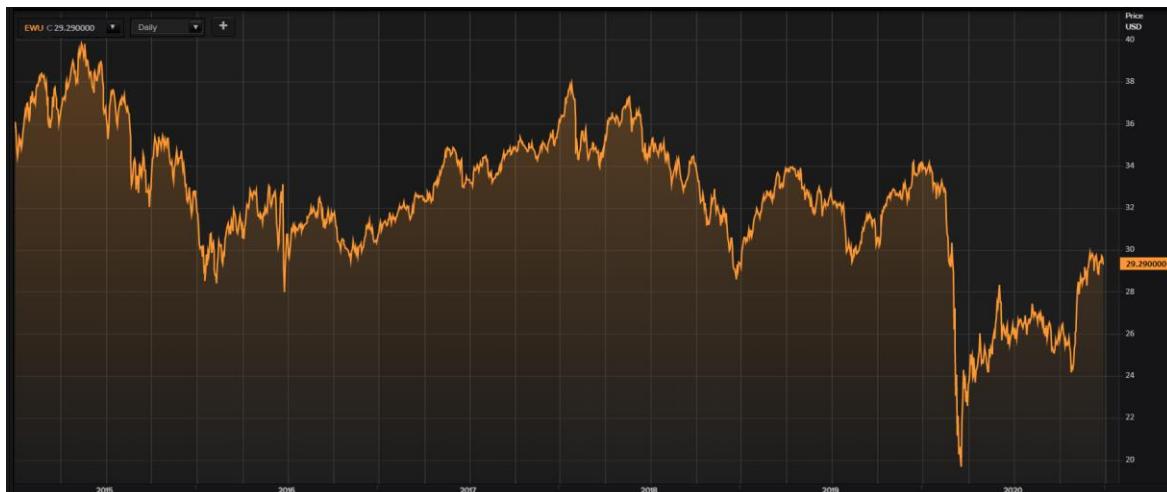


Fuente: Refinitiv Workspace (2022)

Reino Unido - iShares MSCI United Kingdom ETF

Los precios históricos del *iShares MSCI United Kingdom ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI United Kingdom ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI United Kingdom ETF*, empezó a dar señales en la recuperación en los precios.

Figura 40: Evolución de los precios históricos del iShares MSCI United Kingdom ETF, 2015 – 2020 (precio dólares americanos)

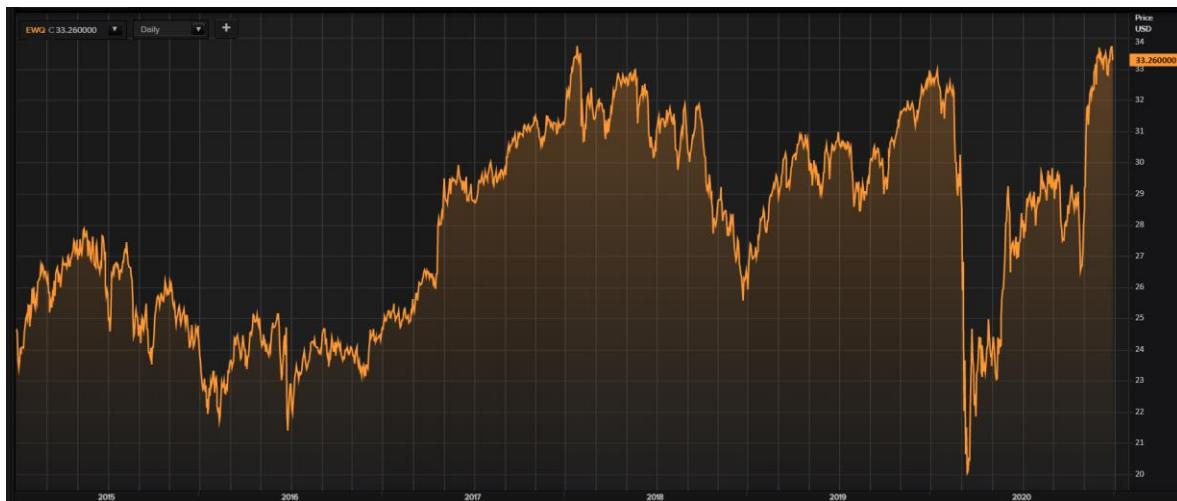


Fuente: Refinitiv Workspace (2022)

Francia - iShares MSCI France ETF

Los precios históricos del *iShares MSCI France ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI France ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI France ETF*, empezó a dar señales en la recuperación en los precios a niveles de prepandemia.

Figura 41: Evolución de los precios históricos del iShares MSCI France ETF, 2015 – 2020 (precio dólares americanos)



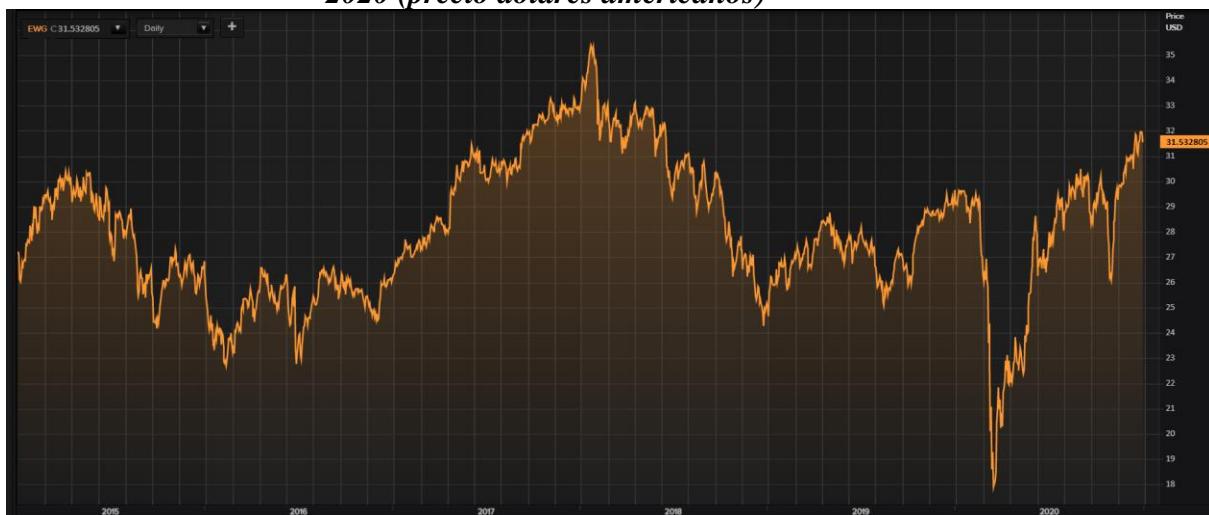
Fuente: Refinitiv Workspace (2022)

Alemania - iShares MSCI Germany ETF

Los precios históricos del *iShares MSCI Germany ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI Germany ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI Germany ETF*, empezó a dar señales en la recuperación en los precios a niveles de prepandemia.

Figura 42: Evolución de los precios históricos del iShares MSCI Germany ETF, 2015

– 2020 (*precio dólares americanos*)



Fuente: Refinitiv Workspace (2022)

Perú - iShares MSCI Peru ETF

Los precios históricos del *iShares MSCI Peru ETF*, señalan un comportamiento diverso, específicamente en el año 2020, en el cual se puede observar una caída estrepitosa en los precios del *iShares MSCI Peru ETF*, esto se debió principalmente al inicio de la pandemia del Covid-19, el cual afectó a diversas empresas del ETF. A mediados del año 2020 el *iShares MSCI Peru ETF* comenzó a dar señales en la recuperación en los precios.

Figura 43: Evolución de los precios históricos del iShares MSCI Peru ETF, 2015 – 2020 (precio dólares americanos)



Fuente: Refinitiv Workspace (2022)



CAPITULO III

RESULTADOS

1.1 Retornos Logarítmicos del fondo tipo 3

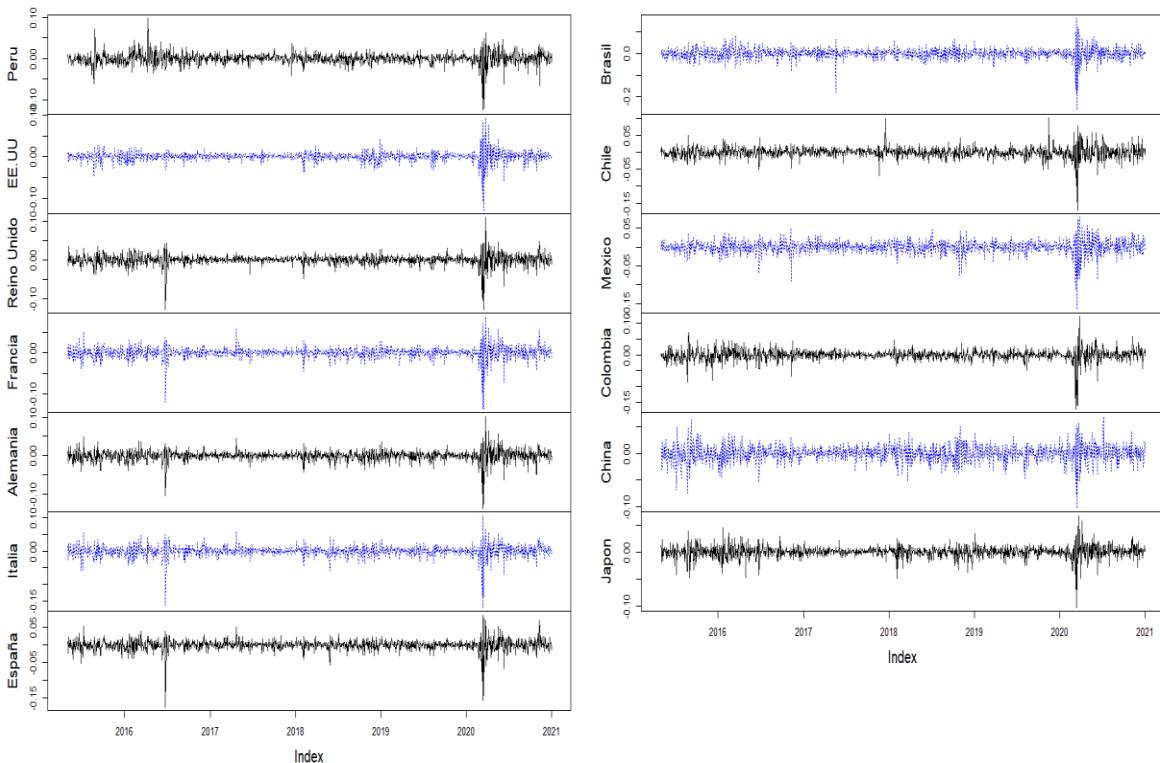
Para calcular los rendimientos diarios compuestos continuamente del fondo tipo 3 son definidos de la siguiente manera:

$$R_{t+1} = \ln(S_{t+1}) - \ln(S_t)$$

31

Esto es aplicado para los distintos ETFs propuestos anteriormente. Adicionalmente, estos ETFs están compuestos por las empresas más representativas de cada país. Por lo tanto, en la figura 44 se puede apreciar el rendimiento logarítmico diario de los ETFs propuestos, los cuales tiene una reducción considerable en el año 2020, esto se debe a la pandemia del Covid-19.

Figura 44: Evolución rendimiento logarítmico del portafolio tipo 3, 2016 – 2021



Elaboración propia

1.2 Desarrollo de portafolios óptimos del fondo tipo 3

Con el fin de alcanzar el portafolio optimo del fondo tipo 3 de las AFPs peruanas, es imprescindible emplear un modelo de optimización, la cual fue descrita en el marco teórico. Se define el portafolio optimo del marco teórico.

Modelo del Conditional Value at Risk

El modelo de optimización del Conditional Value at Risk, nos permitirá calcular y obtener los pesos óptimos del portafolio del fondo tipo 3, este modelo tiene planteado como objetivo minimizar el riesgo. El modelo considera al Conditional Value at Risk como métrica de riesgo. Adicionalmente, el modelo considera un nivel de confianza del 95%.

$$F_\alpha(x, \zeta) = \zeta + \frac{1}{1-\alpha} E\{[f(x, y) - \zeta]^+\}. \quad (1)$$

$$CVaR_\alpha(x) = \min_\alpha F_\alpha(x, \zeta). \quad (2)$$

$$\min_{x \in X} CVaR(x) = \min_{(x, \zeta) \in X \times R} F_\alpha(x, \zeta). \quad (3)$$

$$CVaR_\alpha(x^*) = F_\alpha(x^*, \zeta^*). \quad (4)$$

$$\min_{x \in X} g(x)$$

$$s.t. CVaR_\alpha(x) \leq w_i, \quad i = 1, \dots \quad (5)$$

$$\min_{x, \zeta_1, \dots, \zeta_l \in X \times R \times \dots \times R} g(x)$$

$$s.t F_\alpha(x, \zeta_i) \leq w_i, \quad i = 1, \dots, l. \quad (6)$$

$$F_\alpha(x, \zeta_i) = \zeta_i + \frac{1}{1-\alpha} \sum_{k=1}^N P_k [f(x, y_k) - \zeta_i]^+. \quad (7)$$

$$n_k \geq 0, \quad f(x, y_k) - \zeta - n_k \leq 0, \quad k = 1, \dots, N,$$

$$\zeta + \frac{1}{1-\alpha} \sum_{k=1}^N P_k n_k \leq w \quad (8)$$

1.3 Portafolio optimo y pesos óptimos del modelo CVAR – sin rebalanceo anual

Para el modelo del Conditional Value at Risk, los resultados de la optimización se pueden apreciar en el cuadro 3, en este cuadro se puede apreciar el CVaR diario del portafolio y el CVaR anual del portafolio.

Tabla 2: Pesos óptimos del portafolio del fondo tipo 3 de las AFPs con el modelo del Conditional Value at Risk – sin rebalanceo anual

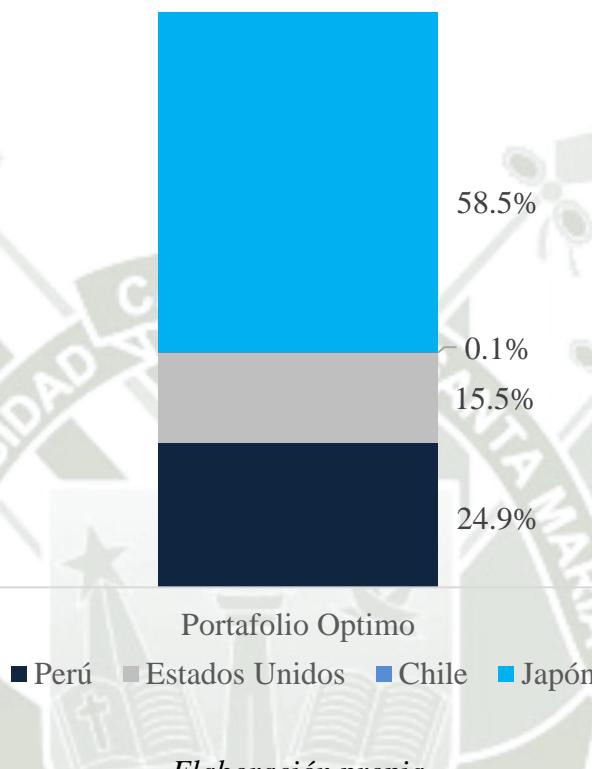
	Portafolio Optimo
Perú	24.9%
Estados Unidos	15.5%
Reino Unido	0.0%
Francia	0.0%
Alemania	0.0%
Italia	0.0%
España	0.0%
Brasil	0.0%
Chile	0.1%
México	0.0%
Colombia	0.0%
China	0.0%
Japón	58.5%
Total	100.0%
CVaR Diario	2.6%
CVaR Anual	40.6%

Elaboración propia

El portafolio optimo del fondo tipo 3 de las AFPs, tiene un CVaR diario de 2.6%, un CVaR anual de 40.6% y un rendimiento logarítmico promedio de 4.1%. Este portafolio no cuenta con rebalanceos anuales, es por ello que solo tenemos CVaR diario y anual.

Figura 45: Pesos óptimos del portafolio del fondo tipo 3 de las AFPs con el modelo del Conditional Value at Risk

Pesos del portafolio - Modelo Conditional
Value at Risk



Los pesos óptimos del portafolio del fondo tipo 3 de las AFPs, tiene una composición del 58.5% en el iShares MSCI Japan ETF – Japón, 24.9 % en el iShares MSCI Peru ETF – Perú, 15.5% en el iShares U.S. Equity Factor ETF – Estados Unidos y 0.1% en el iShares MSCI Chile ETF – Chile. Estos serían los pesos óptimos del portafolio, aplicando el modelo CVaR sin rebalanceo anual.

1.4 Portafolio optimo y pesos óptimos del modelo CVAR – con rebalanceo anual

Para el modelo del Conditional Value at Risk, los resultados de la optimización se pueden apreciar en el cuadro 3, en este cuadro se puede apreciar el CVaR diario del portafolio y el CVaR

anual del portafolio.

Tabla 3: Pesos óptimos del portafolio del fondo tipo 3 de las AFPs con el modelo del Conditional Value at Risk – con rebalanceo anual

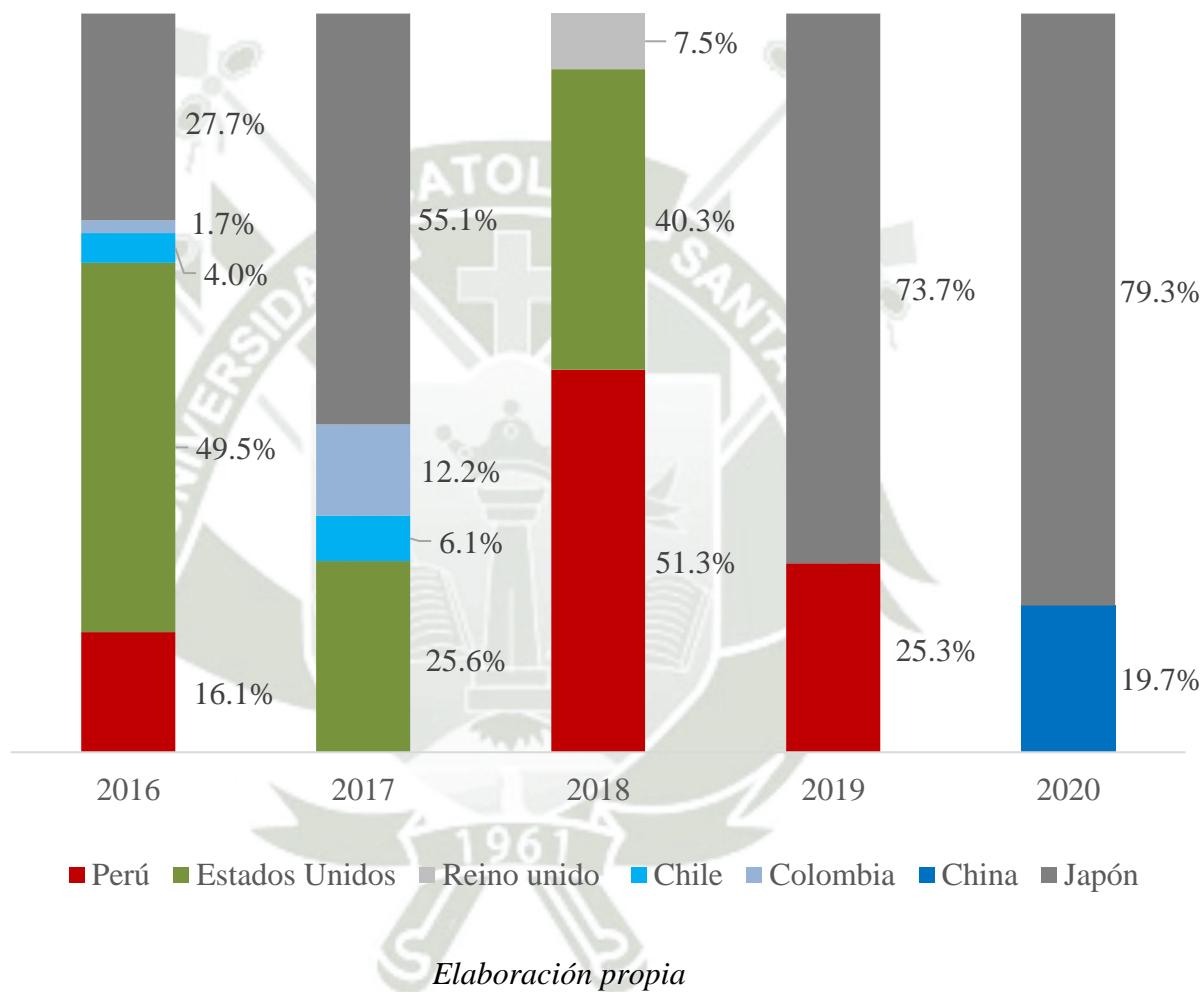
	2016	2017	2018	2019	2020
Perú	16.1%	0.0%	51.3%	25.3%	0.0%
Estados Unidos	49.5%	25.6%	40.3%	0.0%	0.0%
Reino unido	0.0%	0.0%	7.5%	0.0%	0.0%
Francia	0.0%	0.0%	0.0%	0.0%	0.0%
Alemania	0.0%	0.0%	0.0%	0.0%	0.0%
Italia	0.0%	0.0%	0.0%	0.0%	0.0%
España	0.0%	0.0%	0.0%	0.0%	0.0%
Brasil	0.0%	0.0%	0.0%	0.0%	0.0%
Chile	4.0%	6.1%	0.0%	0.0%	0.0%
México	0.0%	0.0%	0.0%	0.0%	0.0%
Colombia	1.7%	12.2%	0.0%	0.0%	0.0%
China	0.0%	0.0%	0.0%	0.0%	19.7%
Japón	27.7%	55.1%	0.0%	73.7%	79.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
CVaR Diario	1.9%	0.8%	2.0%	1.5%	4.2%
CVaR Anual	29.7%	13.2%	31.5%	23.2%	65.9%

Elaboración propia

El portafolio optimo del fondo tipo 3 de las AFPs, que para el año 2016 tiene un CVaR diario de 1.9% y un CVaR anual de 29.7%. Al año 2017 el portafolio tiene un CVaR diario de 0.8% y un CVaR anual de 13.2%. Al año 2018 el portafolio tiene un CVaR diario de 2.0% y un CVaR anual de 31.5%. Al año 2019 el portafolio tiene un CVaR diario de 1.5% y un CVaR anual de 23.2%. Además, para el año 2020, el portafolio tiene un CVaR diario de 4.2% y un CVaR anual de 65.9%, siendo este año el CVaR más alto del portafolio tanto diario como anual, esto es explicado por la pandemia del Covid-19. Al aplicar los rebalanceos anuales al portafolio se obtiene un rendimiento logarítmico promedio de 5.3%.

Figura 46: Pesos óptimos del portafolio del fondo tipo 3 de las AFPs con el modelo del Conditional Value at Risk – con rebalanceo anual

Pesos del portafolio - Modelo Conditional Value at Risk con rebalanceo, 2016 - 2020



Los pesos óptimos del portafolio del fondo tipo 3 de las AFPs, al año 2016 se tiene una composición del 49.5% en el iShares U.S. Equity Factor ETF – Estados Unidos, 27.7% en el iShares MSCI Japan ETF – Japón, 16.1% en el iShares MSCI Peru ETF – Perú, 4.0% en el iShares MSCI Chile ETF – Chile, y un 1.7% en el iShares MSCI Colombia ETF - Colombia. Al

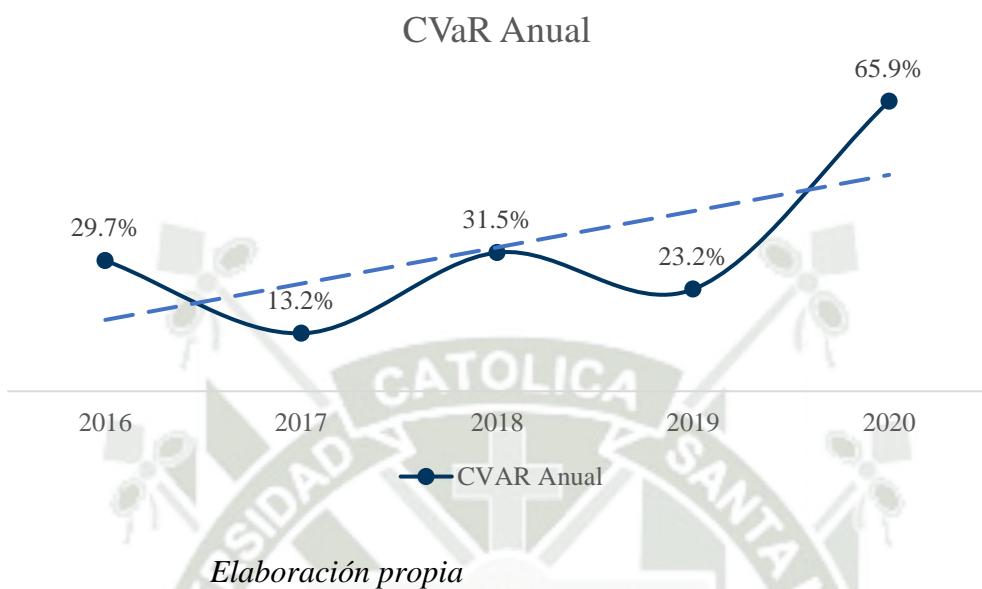
año 2017 el portafolio se compone de un 27.7% en el iShares MSCI Japan ETF – Japón, 25.6% en el iShares U.S. Equity Factor ETF – Estados Unidos, 12.2% en el iShares MSCI Colombia ETF – Colombia y un 6.1% en el iShares MSCI Chile ETF – Chile. Al 2018 se compone de un 51.3% en el iShares MSCI Peru ETF – Perú, 40.3% en el iShares U.S. Equity Factor ETF y un 7.5% en el iShares MSCI United Kingdom ETF – Reino Unido. Al 2019 se compone de un 73.7% en el iShares MSCI Japan ETF – Japón y un 25.3% iShares MSCI Peru ETF – Perú. Finalmente, al 2020 el portafolio se compone de un 79.3% iShares MSCI Japan ETF – Japón y un 19.7% en el iShares MSCI China ETF – China.

Desde el año 2016 al 2020 el portafolio tuvo una serie de pesos óptimos, a medida que el riesgo se incrementa, para lo cual se ve reflejado en el incremento de los CVaR diarios y anuales. La participación del iShares MSCI Japan ETF – Japón se incrementa, pasa de 27.7% al 2016 a un 79.3% al 2020. Por otra parte, la participación del iShares U.S. Equity Factor ETF – Estados Unidos se reduce, paso de un 49.5% al 2016 a un 40.3% al 2018. Finalmente, el iShares MSCI Peru ETF – Perú, empieza a tener una presencia considerable en el año 2019 llegando a tener una composición de 51.3%, pero al 2020 la participación de este ETF se redujo.

1.5 Análisis del CVaR anual del portafolio del fondo tipo 3, con rebalanceo anual

El porfolio con rebalanceo anuales se optimiza con las siguientes métricas de riesgos, el CVaR al 2016 fue de 29.7%, 2017 de 13.2%, 2018 de 31.5%, 2019 de 23.2% y para el 2020 de 65.9%. En la figura 3, se puede observar una tendencia de crecimiento en esta métrica, el CVaR paso de 29.7% al 2016 a 65.9% al 2020, este crecimiento puede ser explicado principalmente a la pandemia del Covid-19, la cual remeció seriamente los mercados financieros, desencadenado en un incremento en los riesgos de inversión.

Figura 47: Conditional Value at Risk del portafolio con rebalanceo anual, 2016 - 2020



CONCLUSIONES

Se cumple con la hipótesis planteada en el plan de investigación, ya que es posible optimizar el portafolio del fondo tipo 3 de las AFPs peruanas a través de la estrategia de minimización de riesgo considerando al modelo Conditional Value at Risk. El CVaR diario al 95% del portafolio es de 2.6% y el CVaR anual del portafolio es de 40.6%. Además, el portafolio tiene un rendimiento logarítmico promedio de 4.1%. Se considera que al portafolio no se aplica el rebalanceo por lo cual tiene estos resultados anteriormente descritos.

El objetivo general de desarrollar una estrategia de minimización de riesgo utilizando el Conditional Value at Risk para el portafolio del fondo tipo 3 de las AFPs peruanas, se cumple mediante la composición de los pesos óptimos del portafolio. El portafolio tiene una composición de 58.5% en el iShares MSCI Japan ETF – Japón, 24.9 % en el iShares MSCI Peru ETF – Perú, 15.5% en el iShares U.S. Equity Factor ETF – Estados Unidos y 0.1% en el iShares MSCI Chile ETF – Chile. Además, la composición del portafolio se considera como una estrategia de minimización de riesgo.

El objetivo específico de analizar el Conditional Value at Risk en los rebalanceos anuales del portafolio tipo 3 se cumple. Para el 2016 el CVaR fue de 29.7%, 2017 de 13.2%, 2018 de 31.5%, 2019 de 23.2% y para el 2020 de 65.9%. Además, se concluye que existe un crecimiento en esta métrica. El CVaR paso de 29.7% al 2016 a 65.9% al 2020, este crecimiento puede ser explicado principalmente a la pandemia del Covid-19, la cual afectó seriamente los mercados financieros.

Se cumple con el objetivo específico de analizar la composición del portafolio tipo 3 con rebalanceo anual. A medida que el riesgo se incrementa en portafolio, lo cual se ve reflejado en el incremento de los CVaR diarios y anuales. La participación del iShares MSCI Japan ETF –

Japón se incrementa, pasa de 27.7% al 2016 a un 79.3% al 2020. Por otra parte, la participación del iShares U.S. Equity Factor ETF – Estados Unidos se reduce, paso de un 49.5% al 2016 a un 40.3% al 2018. Finalmente, el iShares MSCI Peru ETF – Perú, empieza a tener una presencia considerable en el año 2019 llegando a tener una composición de 51.3%, pero al 2020 la participación de este ETF se redujo.

Se cumple con el objetivo de analizar el rendimiento promedio anual del portafolio con rebalanceo anual y sin rebalanceo, el rendimiento logarítmico promedio del portafolio con rebalanceo anual es 5.3%, y el rendimiento logarítmico promedio del portafolio sin el rebalanceo es de 4.1%, se puede entender que bajo la estrategia de rebalanceo y utilizando la métrica del Conditional Value at Risk, obtenemos un mejor rendimiento frente al portfolio sin rebalanceo utilizando, también la métrica de riesgo del Conditional Value at Risk.

Se formula una estrategia de composición de portafolio que genere un mayor rendimiento y un menor riesgo, la estrategia que tiene un mayor rendimiento logarítmico promedio es la del portafolio con rebalanceo anual. La composición optima del portafolio al año 2016 es de 49.5% en el iShares U.S. Equity Factor ETF – Estados Unidos, 27.7% en el iShares MSCI Japan ETF – Japón, 16.1% en el iShares MSCI Peru ETF – Perú, 4.0% en el iShares MSCI Chile ETF – Chile, y un 1.7% en el iShares MSCI Colombia ETF - Colombia. Al año 2017 el portafolio se compone de un 27.7% en el iShares MSCI Japan ETF – Japón, 25.6% en el iShares U.S. Equity Factor ETF – Estados Unidos, 12.2% en el iShares MSCI Colombia ETF – Colombia y un 6.1% en el iShares MSCI Chile ETF – Chile. Al 2018 se compone de un 51.3% en el iShares MSCI Peru ETF – Perú, 40.3% en el iShares U.S. Equity Factor ETF y un 7.5% en el iShares MSCI United Kingdom ETF – Reino Unido. Al 2019 se compone de un 73.7% en el iShares MSCI Japan ETF – Japón y un 25.3% iShares MSCI Peru ETF – Perú. Finalmente, al 2020 el portafolio

se compone de un 79.3% iShares MSCI Japan ETF – Japón y un 19.7% en el iShares MSCI China ETF – China. Además, el portafolio con rebalanceo anual tiene un CVaR anual de 32.7% el cual es menor a la del portafolio sin rebalanceo anual, esto explica que la estrategia de rebalanceo genera un menor riesgo.

Tabla 4: Comparativo rendimiento logarítmico promedio – Conditional Value at Risk de los portafolios

	Rendimiento logarítmico Promedio	CVaR Anual
Portafolio sin rebalanceo anual	4.1%	40.6%
Portafolio con rebalanceo anual	5.3%	32.7%

RECOMENDACIONES

Se recomienda considerar el presente trabajo de investigación como base para que se realicen nuevos modelos de optimización de portafolios utilizando métricas de riesgo coherentes, cabe señalar que se requiere realizar un análisis sobre los instrumentos en los cuales se desea invertir, además de ello se debe plantear cual debe ser el objetivo de la optimización.

Se propone utilizar diversas métricas de riesgo para optimizar portafolios, teniendo como objetivo la minimización de riesgo con el fin de obtener una composición optima de instrumentos de inversión.

Se propone utilizar ratios para optimizar portafolios, teniendo como objetivo la maximización de rendimiento con el fin de obtener una composición optima de instrumentos de inversión.

Se recomienda realizar un análisis de sensibilidad de los rebalanceos periódicos del portafolio, con el fin de obtener una estrategia óptima para los rebalanceos del portafolio.

REFERENCIAS

- Abner, D. J. (2016). *The ETF Handbook*. John Wiley & Sons.
<https://www.pdfdrive.com/the-etf-handbook-how-to-value-and-trade-exchange-traded-funds-e158095967.html>
- Acerbi, C., Nordio, C., & Sirtori, C. (2018). Expected Shortfall as a Tool for Financial Risk Management. *arXiv:cond-mat/0102304*. <http://arxiv.org/abs/cond-mat/0102304>
- Acerbi, C., & Tasche, D. (2001). Expected Shortfall: A Natural Coherent Alternative to Value at Risk. *Economic Notes*, 31(2), 379-388. <https://doi.org/10.1111/1468-0300.00091>
- Altamirano, Á., Berstein, S., Bosch, M., Caballero, G., García-Huitrón, M., Keller, L., & Silva-Porto, M. T. (2019). Diagnóstico del sistema de pensiones peruano y avenidas de reforma. *BID*: https://publications.iadb.org/publications/spanish/document/Diagn%C3%8Cstico_del_sistema_de_pensiones_peruano_y_avenidas_de_reforma_es.pdf.
- Arbeláez, L. C. F., & Ceballos, L. E. F. (2005). *El valor en riesgo condicional CVaR como medida coherente de riesgo*. 13.
- Barker, K., & Filbeck, G. (2013). *Portfolio Theory and Management*. Oxford University Press. [http://www.pdfdrive.com/portfolio-theory-and-management-e188538652.html](https://www.pdfdrive.com/portfolio-theory-and-management-e188538652.html)

- Caccioli, F., Kondor, I., & Papp, G. (2018). Portfolio optimization under Expected Shortfall: Contour maps of estimation error. *Quantitative Finance*, 18(8), 1295-1313. <https://doi.org/10.1080/14697688.2017.1390245>
- Ciliberti, S., Kondor, I., & Mezard, M. (2007). On the Feasibility of Portfolio Optimization under Expected Shortfall. *Quantitative Finance*, 7, 389-396. <https://doi.org/10.1080/14697680701422089>
- Court, E., & Tarradellas, J. (2010). *Mercado de Capitales*. Pearson Educación. <https://docplayer.es/59098075-Mercado-de-capitales.html>
- Fabozzi, F., & Mann, S. (2010). *Introduction to Fixed Income Analytics, Relative Value Analysis, Risk Measures and Valuation*. John Wiley & Sons. <http://www.pdfdrive.com/introduction-to-fixed-income-analytics-relative-value-analysis-risk-measures-and-valuation-e196525302.html>
- Feria, J. M., & Oliver, M. D. (2007). Más allá del valor en riesgo (VeR): El VeR condicional. *Revista europea de dirección y economía de la empresa*, 16(2), 61-70.
- Ferri, R. A. (2009). *The ETF Book*. John Wiley & Sons. <https://www.pdfdrive.com/the-etf-book-all-you-need-to-know-about-exchange-traded-funds-e158319638.html>
- Franco, L., Avendaño, C., & Barbutín, H. (2011). Modelo de Markowitz y Modelo de Black-Litterman en la Optimización de Portafolios de Inversión. *TecnoLógicas*, 26, 71-88.
- FRM. (2019). *Market Risk Measurement and Management*. Kaplan Schweser.

Gilli, M., & Kellezi, E. (2002). A Global Optimization Heuristic for Portfolio Choice with VaR and Expected Shortfall. En E. J. Kontoghiorghe, B. Rustem, & S. Siokos (Eds.), *Computational Methods in Decision-Making, Economics and Finance* (pp. 167-183). Springer US. https://doi.org/10.1007/978-1-4757-3613-7_9

Hull, J. (2015). *Risk Management and Financial Institutions by John C. Hull*. John Wiley & Sons. <http://www.pdfdrive.com/risk-management-and-financial-institutions-e184613675.html>

Krokhmal, P., Palmquist, J., & Uryasev, S. (2002). Portfolio optimization with conditional value-at-risk objective and constraints. *Journal of risk*, 4, 43-68.

Manini, F., & Schenno, S. A. (2021). El rendimiento de la Bolsa de Valores de Lima y su relación con el valor del fondo de la AFP Integra, año 2015-2020.

Medina Arauco, J. A., & Mendoza Vasquez, V. M. (2019). *Optimización del conditional value at risk: Aplicación al fondo 3 de las AFP'S en Perú para los años 2009-2015* [Universidad Católica Santo Toribio de Mogrovejo].

<http://tesis.usat.edu.pe/handle/20.500.12423/3399>

Michaud, R., & Michaud, R. (2008). *Efficient Asset Management: A Practical Guide to Stock Portfolio Optimization and Asset Allocation* (Oxford University Press).

<http://www.pdfdrive.com/efficient-asset-management-a-practical-guide-to-stock-portfolio-optimization-and-asset-allocation-includes-cd-e165788589.html>

Nakagawa, K., Noma, S., & Abe, M. (2020). RM-CVaR: Regularized Multiple β -CVaR Portfolio. *Proceedings of the Twenty-Ninth International Joint Conference on Artificial Intelligence*, 4562-4568. <https://doi.org/10.24963/ijcai.2020/629>

Navarrete, P. (2012). *OPTIMIZACIÓN DE PORTAFOLIOS DE INVERSIÓN A TRAVÉS DEL VALOR EN RIESGO CONDICIONAL (CVAR) UTILIZANDO CÓPULAS EN PARES*. Pontificia Universidad Católica del Perú.

Neave, E. (2009). *Modern Financial Systems: Theory and Applications*. John Wiley & Sons. <http://www.pdfdrive.com/modern-financial-systems-theory-and-applications-the-frank-j-fabozzi-series-e163236676.html>

Peterson, P., & Fabozzi, F. (2010). *The Basics of Finance: An Introduction to Financial Markets, Business Finance, and Portfolio Management*. John Wiley & Sons. <http://www.pdfdrive.com/the-basics-of-finance-an-introduction-to-financial-markets-business-finance-and-portfolio-management-frank-j-fabozzi-series-e184936291.html>

Rockafellar, R. T., & Uryasev, S. (2002). Conditional value-at-risk for general loss distributions. *Journal of Banking & Finance*, 26(7), 1443-1471. [https://doi.org/10.1016/S0378-4266\(02\)00271-6](https://doi.org/10.1016/S0378-4266(02)00271-6)

Sarykalin, S., Serraino, G., & Uryasev, S. (2008). Value-at-Risk vs. Conditional Value-at-Risk in Risk Management and Optimization. En *State-of-the-Art Decision-Making Tools in the Information-Intensive Age* (pp. 270-294). INFORMS. <https://doi.org/10.1287/educ.1080.0052>

- Solís, J. (2019). *DESARROLLO DE UN MODELO DE OPTIMIZACIÓN DE PORTAFOLIO DE INVERSIÓN, USANDO EL CVaR COMO MEDIDA DE RIESGO Y EVALUACIÓN DEL IMPACTO DE LOS LÍMITES DE INVERSIÓN, DURANTE EL PERÍODO 2011-2016.* Pontificia Universidad Católica del Perú.
- Tapiero, C. (2004). Value at Risk and Risk Management. En *RISK and FINANCIAL MANAGEMENT*. John Wiley & Sons Ltd.



ANEXOS

	Perú	Estados Unidos	Reino Unido	Francia	Alemania	Italia	España	Brasil	Chile	México	Colombia	China	Japón
2015-01-02	\$31.93	\$0.00	\$35.72	\$24.52	\$27.28	\$27.26	\$34.98	\$35.36	\$39.41	\$57.88	\$18.06	\$50.26	\$45.04
2015-01-05	\$31.45	\$0.00	\$34.82	\$23.64	\$26.33	\$25.88	\$33.52	\$34.15	\$38.70	\$56.17	\$16.96	\$50.19	\$44.52
2015-01-06	\$31.72	\$0.00	\$34.42	\$23.38	\$26.22	\$25.60	\$32.96	\$34.76	\$38.59	\$56.70	\$16.69	\$49.71	\$43.80
2015-01-07	\$31.64	\$0.00	\$34.72	\$23.61	\$26.44	\$25.86	\$33.26	\$35.70	\$38.78	\$58.05	\$17.11	\$50.98	\$44.44
2015-01-08	\$32.00	\$0.00	\$35.34	\$24.04	\$26.94	\$26.20	\$32.82	\$36.27	\$39.04	\$58.94	\$17.16	\$51.49	\$45.00
2015-01-09	\$31.86	\$0.00	\$35.18	\$23.85	\$26.75	\$25.72	\$32.33	\$36.17	\$38.84	\$59.21	\$17.23	\$51.32	\$44.52
2015-01-12	\$31.76	\$0.00	\$35.04	\$23.99	\$26.91	\$25.74	\$32.26	\$35.32	\$38.81	\$58.36	\$16.93	\$50.85	\$44.36
2015-01-13	\$30.97	\$0.00	\$35.14	\$24.07	\$27.03	\$25.94	\$32.40	\$35.71	\$38.50	\$58.10	\$16.83	\$51.43	\$44.72
2015-01-14	\$29.90	\$0.00	\$34.82	\$24.07	\$27.10	\$25.94	\$32.62	\$36.07	\$37.94	\$58.03	\$16.68	\$50.90	\$44.64
2015-01-15	\$30.08	\$0.00	\$35.02	\$24.05	\$27.05	\$25.92	\$32.41	\$35.53	\$37.52	\$57.47	\$17.01	\$51.20	\$44.96
2015-01-16	\$30.28	\$0.00	\$35.58	\$24.52	\$27.69	\$26.62	\$32.74	\$36.72	\$37.65	\$58.17	\$17.09	\$50.95	\$45.36
2015-01-20	\$30.37	\$0.00	\$35.90	\$24.73	\$27.67	\$27.14	\$33.39	\$36.11	\$37.81	\$58.35	\$16.96	\$50.56	\$45.72
2015-01-21	\$30.30	\$0.00	\$36.26	\$24.97	\$27.85	\$27.62	\$33.65	\$37.31	\$38.57	\$58.88	\$17.12	\$52.18	\$45.80
2015-01-22	\$30.64	\$0.00	\$36.58	\$25.08	\$27.80	\$27.96	\$33.77	\$37.91	\$39.60	\$60.26	\$17.27	\$53.06	\$46.00
2015-01-23	\$30.26	\$0.00	\$36.40	\$24.95	\$27.76	\$27.26	\$33.04	\$36.80	\$39.17	\$59.70	\$17.36	\$52.85	\$45.84
2015-01-26	\$30.72	\$0.00	\$36.94	\$25.41	\$28.44	\$27.88	\$33.73	\$36.53	\$39.14	\$59.93	\$17.45	\$52.76	\$46.36
2015-01-27	\$30.63	\$0.00	\$36.96	\$25.39	\$28.21	\$27.92	\$33.78	\$36.97	\$39.23	\$59.66	\$17.56	\$51.90	\$46.44
2015-01-28	\$30.18	\$0.00	\$36.50	\$24.73	\$27.84	\$27.06	\$32.45	\$35.97	\$38.95	\$58.57	\$17.50	\$51.15	\$46.36
2015-01-29	\$29.93	\$0.00	\$36.74	\$25.44	\$28.54	\$27.90	\$33.53	\$36.00	\$38.81	\$57.99	\$17.15	\$51.51	\$46.76
2015-01-30	\$29.76	\$0.00	\$36.08	\$24.95	\$28.05	\$27.42	\$32.63	\$34.31	\$38.11	\$56.25	\$16.93	\$50.40	\$45.96
2015-02-02	\$30.13	\$0.00	\$36.40	\$25.32	\$28.67	\$27.72	\$32.89	\$34.71	\$38.93	\$57.04	\$17.33	\$51.10	\$46.44
2015-02-03	\$30.47	\$0.00	\$37.30	\$25.94	\$29.22	\$28.74	\$34.15	\$35.69	\$39.63	\$57.91	\$18.13	\$51.83	\$46.36
2015-02-04	\$30.55	\$0.00	\$36.96	\$25.46	\$28.74	\$27.98	\$33.21	\$35.22	\$39.47	\$57.51	\$17.57	\$52.24	\$46.60
2015-02-05	\$30.93	\$0.00	\$37.52	\$26.00	\$29.18	\$28.38	\$33.79	\$35.50	\$40.01	\$58.55	\$17.97	\$52.17	\$47.00

2015-02-06	\$30.36	\$0.00	\$37.12	\$25.40	\$28.44	\$27.70	\$33.19	\$34.42	\$39.70	\$58.50	\$17.90	\$51.03	\$46.60		
2015-02-09	\$30.72	\$0.00	\$37.02	\$25.31	\$28.11	\$27.38	\$32.73	\$34.86	\$39.88	\$58.77	\$17.90	\$50.78	\$46.16		
2015-02-10	\$30.29	\$0.00	\$37.16	\$25.66	\$28.45	\$27.94	\$33.32	\$33.84	\$39.75	\$58.08	\$17.62	\$51.10	\$46.76		
2015-02-11	\$29.98	\$0.00	\$36.98	\$25.51	\$28.35	\$27.72	\$32.85	\$33.18	\$39.44	\$56.64	\$16.81	\$51.05	\$46.84		
2015-02-12	\$30.45	\$0.00	\$37.64	\$26.15	\$29.20	\$28.78	\$33.99	\$34.48	\$40.52	\$58.78	\$17.23	\$51.81	\$47.16		
2015-02-13	\$30.81	\$0.00	\$37.82	\$26.18	\$29.19	\$28.88	\$34.41	\$35.05	\$41.02	\$59.10	\$17.45	\$52.12	\$47.72		
2015-02-17	\$30.71	\$0.00	\$37.80	\$26.24	\$29.05	\$29.16	\$34.52	\$35.37	\$40.70	\$59.19	\$17.30	\$52.37	\$47.68		
2015-02-18	\$30.75	\$0.00	\$37.98	\$26.32	\$29.13	\$29.46	\$34.58	\$35.39	\$40.91	\$59.10	\$17.16	\$52.19	\$48.52		
2015-02-19	\$30.49	\$0.00	\$37.94	\$26.33	\$29.10	\$29.36	\$34.57	\$34.98	\$40.97	\$58.74	\$16.83	\$52.13	\$48.88		
2015-02-20	\$30.19	\$0.00	\$38.18	\$26.67	\$29.50	\$30.10	\$35.21	\$34.86	\$41.25	\$59.05	\$16.53	\$52.49	\$49.32		
2015-02-23	\$29.85	\$0.00	\$38.10	\$26.49	\$29.42	\$29.76	\$34.82	\$34.75	\$41.03	\$58.94	\$16.09	\$52.09	\$49.04		
2015-02-24	\$29.79	\$0.00	\$38.36	\$26.69	\$29.66	\$29.96	\$35.13	\$35.77	\$40.96	\$59.79	\$16.13	\$52.71	\$49.28		
2015-02-25	\$29.81	\$0.00	\$38.38	\$26.62	\$29.67	\$29.74	\$35.01	\$35.14	\$41.04	\$59.63	\$16.50	\$52.54	\$49.16		
2015-02-26	\$29.80	\$0.00	\$38.24	\$26.37	\$29.58	\$29.60	\$34.85	\$34.92	\$40.92	\$60.02	\$16.21	\$53.08	\$49.60		
2015-02-27	\$29.86	\$0.00	\$38.20	\$26.50	\$29.70	\$29.76	\$34.97	\$35.38	\$41.31	\$60.21	\$16.21	\$53.06	\$49.40		
2015-03-02	\$29.76	\$0.00	\$38.26	\$26.50	\$29.82	\$29.86	\$35.07	\$34.50	\$40.88	\$59.52	\$16.00	\$53.30	\$49.52		
2015-03-03	\$29.76	\$0.00	\$37.90	\$26.27	\$29.49	\$29.44	\$34.64	\$34.23	\$41.01	\$59.11	\$15.74	\$52.00	\$49.28		
2015-03-04	\$29.78	\$0.00	\$37.72	\$26.16	\$29.42	\$29.24	\$34.34	\$33.26	\$40.95	\$58.35	\$15.50	\$51.48	\$49.04		
2015-03-05	\$29.73	\$0.00	\$37.92	\$26.32	\$29.51	\$29.36	\$34.35	\$32.80	\$40.52	\$57.99	\$15.53	\$51.20	\$49.32		
2015-03-06	\$28.94	\$0.00	\$37.08	\$25.81	\$29.04	\$28.72	\$33.52	\$31.93	\$39.98	\$56.62	\$15.04	\$50.65	\$49.24		
2015-03-09	\$28.55	\$0.00	\$37.26	\$25.82	\$29.30	\$29.12	\$33.67	\$30.77	\$39.53	\$56.59	\$14.38	\$51.10	\$49.08		
2015-03-10	\$28.17	\$0.00	\$36.24	\$25.17	\$28.66	\$28.38	\$32.65	\$30.46	\$38.76	\$55.75	\$14.11	\$50.00	\$48.36		
2015-03-11	\$28.20	\$0.00	\$35.96	\$25.35	\$29.01	\$28.66	\$32.54	\$30.61	\$38.59	\$56.48	\$14.12	\$50.28	\$48.80		
2015-03-12	\$28.34	\$0.00	\$36.16	\$25.53	\$29.27	\$28.88	\$32.83	\$30.36	\$38.92	\$57.49	\$14.30	\$50.76	\$49.88		
2015-03-13	\$28.34	\$0.00	\$35.78	\$25.34	\$29.19	\$28.48	\$32.52	\$29.31	\$38.10	\$57.27	\$14.34	\$50.94	\$49.92		
2015-03-16	\$28.07	\$0.00	\$36.16	\$25.78	\$29.93	\$28.86	\$32.86	\$29.52	\$38.26	\$57.77	\$14.16	\$51.83	\$50.12		
2015-03-17	\$28.17	\$0.00	\$36.22	\$25.65	\$29.60	\$28.74	\$32.85	\$30.46	\$38.26	\$57.47	\$14.27	\$52.14	\$50.24		
2015-03-18	\$28.59	\$0.00	\$37.28	\$26.19	\$29.95	\$28.98	\$33.37	\$31.34	\$38.98	\$59.28	\$14.50	\$52.91	\$51.04		
2015-03-19	\$28.50	\$0.00	\$36.78	\$25.72	\$29.47	\$28.74	\$32.89	\$30.22	\$38.57	\$58.40	\$14.85	\$52.79	\$50.44		

2015-03-20	\$28.77	\$0.00	\$37.64	\$26.42	\$30.26	\$29.66	\$34.42	\$31.54	\$39.16	\$59.32	\$15.23	\$52.97	\$51.24
2015-03-23	\$28.74	\$0.00	\$37.70	\$26.55	\$30.21	\$29.92	\$35.02	\$32.17	\$39.65	\$59.58	\$15.17	\$52.90	\$51.48
2015-03-24	\$28.82	\$0.00	\$37.34	\$26.61	\$30.38	\$30.16	\$35.29	\$32.15	\$40.05	\$59.78	\$15.43	\$52.69	\$51.36
2015-03-25	\$28.56	\$0.00	\$37.20	\$26.38	\$30.21	\$30.08	\$35.12	\$31.64	\$40.06	\$58.91	\$15.38	\$52.07	\$51.24
2015-03-26	\$28.32	\$0.00	\$36.76	\$26.14	\$30.01	\$29.72	\$34.91	\$30.96	\$39.63	\$57.95	\$15.16	\$52.08	\$50.72
2015-03-27	\$28.17	\$0.00	\$36.68	\$26.42	\$30.10	\$29.80	\$34.99	\$30.29	\$39.81	\$58.16	\$15.21	\$52.84	\$50.92
2015-03-30	\$28.56	\$0.00	\$36.64	\$26.38	\$30.36	\$29.96	\$35.03	\$31.09	\$40.03	\$58.13	\$14.96	\$54.79	\$51.12
2015-03-31	\$28.46	\$0.00	\$36.02	\$25.98	\$29.84	\$29.60	\$34.78	\$31.37	\$40.29	\$57.96	\$14.87	\$54.50	\$50.12
2015-04-01	\$29.03	\$0.00	\$36.26	\$26.26	\$30.10	\$29.98	\$35.23	\$32.25	\$40.97	\$58.94	\$15.23	\$55.39	\$50.32
2015-04-02	\$29.31	\$0.00	\$36.44	\$26.56	\$30.33	\$30.20	\$35.83	\$33.24	\$41.36	\$59.78	\$15.53	\$56.07	\$50.76
2015-04-06	\$29.49	\$0.00	\$36.76	\$26.84	\$30.62	\$30.58	\$36.21	\$33.67	\$41.92	\$60.99	\$15.92	\$56.71	\$51.36
2015-04-07	\$29.46	\$0.00	\$36.90	\$26.72	\$30.38	\$30.46	\$35.70	\$33.50	\$41.94	\$60.93	\$15.81	\$56.75	\$51.60
2015-04-08	\$29.33	\$0.00	\$37.18	\$26.71	\$30.27	\$30.40	\$35.51	\$34.27	\$41.88	\$60.95	\$15.85	\$60.21	\$51.68
2015-04-09	\$29.30	\$0.00	\$37.16	\$26.75	\$30.25	\$30.32	\$35.29	\$34.19	\$41.89	\$60.15	\$15.93	\$62.84	\$51.68
2015-04-10	\$29.27	\$0.00	\$37.26	\$26.75	\$30.55	\$30.18	\$35.11	\$34.45	\$41.68	\$59.75	\$16.08	\$62.25	\$51.76
2015-04-13	\$29.06	\$0.00	\$37.14	\$26.62	\$30.23	\$29.98	\$35.18	\$33.79	\$41.61	\$59.12	\$15.68	\$62.77	\$51.40
2015-04-14	\$29.29	\$0.00	\$37.58	\$26.78	\$30.37	\$30.20	\$35.32	\$34.38	\$41.77	\$59.56	\$15.78	\$62.21	\$51.76
2015-04-15	\$29.64	\$0.00	\$37.88	\$26.95	\$30.36	\$30.50	\$35.38	\$35.24	\$42.16	\$59.99	\$16.22	\$62.47	\$52.00
2015-04-16	\$29.68	\$0.00	\$38.06	\$27.00	\$30.03	\$30.24	\$35.25	\$35.28	\$42.50	\$60.52	\$16.39	\$63.44	\$52.12
2015-04-17	\$29.54	\$0.00	\$37.68	\$26.67	\$29.39	\$29.70	\$34.62	\$34.53	\$42.25	\$59.60	\$16.54	\$61.22	\$51.72
2015-04-20	\$29.49	\$0.00	\$37.76	\$26.68	\$29.63	\$29.76	\$34.42	\$34.50	\$41.79	\$59.18	\$16.30	\$61.56	\$51.88
2015-04-21	\$29.46	\$0.00	\$37.94	\$26.90	\$29.89	\$29.82	\$34.62	\$34.49	\$41.91	\$59.34	\$15.95	\$62.89	\$52.68
2015-04-22	\$29.59	\$0.00	\$38.08	\$26.94	\$29.73	\$29.88	\$34.64	\$35.38	\$41.86	\$59.24	\$16.07	\$64.07	\$53.08
2015-04-23	\$29.76	\$0.00	\$38.34	\$27.07	\$29.63	\$30.08	\$34.98	\$36.27	\$42.25	\$59.94	\$16.11	\$63.53	\$53.04
2015-04-24	\$29.88	\$0.00	\$38.62	\$27.16	\$29.79	\$30.36	\$35.29	\$37.17	\$42.70	\$60.30	\$16.69	\$63.54	\$53.24
2015-04-27	\$30.21	\$0.00	\$38.78	\$27.49	\$30.29	\$30.74	\$35.62	\$36.81	\$43.34	\$60.18	\$17.21	\$64.40	\$53.12
2015-04-28	\$30.49	\$0.00	\$38.96	\$27.41	\$30.12	\$30.82	\$35.98	\$36.84	\$43.21	\$60.29	\$17.52	\$64.43	\$53.28
2015-04-29	\$30.48	\$0.00	\$38.84	\$27.08	\$29.63	\$30.46	\$35.72	\$36.40	\$42.53	\$59.83	\$17.94	\$63.59	\$52.80
2015-04-30	\$30.57	\$24.67	\$38.42	\$27.16	\$29.62	\$30.54	\$35.92	\$36.21	\$42.22	\$58.62	\$17.70	\$62.68	\$51.44

2015-05-01	\$30.90	\$24.91	\$38.44	\$27.51	\$30.00	\$31.00	\$36.27	\$36.21	\$42.64	\$58.33	\$17.72	\$63.26	\$52.08
2015-05-04	\$31.08	\$25.09	\$38.54	\$27.34	\$29.98	\$30.86	\$36.06	\$36.13	\$42.25	\$59.02	\$17.61	\$63.78	\$52.32
2015-05-05	\$31.26	\$24.75	\$37.92	\$26.88	\$29.41	\$30.08	\$35.18	\$36.59	\$42.91	\$59.21	\$17.65	\$61.84	\$51.32
2015-05-06	\$31.04	\$24.52	\$38.06	\$27.22	\$29.77	\$30.48	\$35.61	\$36.31	\$43.14	\$59.02	\$17.71	\$60.51	\$51.28
2015-05-07	\$30.98	\$24.80	\$37.96	\$27.00	\$29.72	\$30.50	\$35.51	\$36.47	\$43.28	\$58.88	\$17.75	\$60.18	\$51.36
2015-05-08	\$30.68	\$24.97	\$39.30	\$27.54	\$30.38	\$31.26	\$36.32	\$37.19	\$43.65	\$59.97	\$17.71	\$61.58	\$52.56
2015-05-11	\$30.86	\$25.04	\$39.54	\$27.15	\$30.01	\$30.94	\$36.04	\$36.37	\$43.74	\$59.38	\$17.54	\$61.18	\$51.72
2015-05-12	\$30.95	\$24.80	\$39.22	\$27.05	\$29.84	\$30.92	\$36.01	\$36.52	\$43.81	\$59.04	\$17.34	\$60.87	\$51.72
2015-05-13	\$31.29	\$24.94	\$39.42	\$27.27	\$29.77	\$31.28	\$36.39	\$36.10	\$43.64	\$59.30	\$17.44	\$60.32	\$52.04
2015-05-14	\$31.42	\$25.05	\$39.80	\$27.81	\$30.54	\$31.94	\$36.93	\$36.81	\$44.02	\$60.45	\$17.17	\$60.75	\$52.32
2015-05-15	\$31.54	\$25.05	\$39.68	\$27.87	\$30.46	\$32.10	\$36.86	\$37.13	\$44.23	\$60.87	\$17.10	\$61.79	\$52.56
2015-05-18	\$31.00	\$25.05	\$39.46	\$27.60	\$30.46	\$31.78	\$36.43	\$36.13	\$43.87	\$60.53	\$16.91	\$61.09	\$53.00
2015-05-19	\$30.66	\$25.25	\$39.16	\$27.65	\$30.54	\$31.74	\$36.20	\$35.54	\$43.06	\$60.01	\$16.61	\$61.75	\$53.04
2015-05-20	\$30.60	\$25.34	\$39.40	\$27.71	\$30.50	\$31.74	\$36.30	\$35.60	\$42.78	\$60.00	\$16.50	\$61.29	\$53.04
2015-05-21	\$30.55	\$25.30	\$39.80	\$27.80	\$30.58	\$31.84	\$36.45	\$35.23	\$42.80	\$59.67	\$16.69	\$61.04	\$53.24
2015-05-22	\$30.43	\$25.30	\$39.40	\$27.56	\$30.18	\$31.56	\$36.00	\$34.20	\$42.51	\$59.27	\$16.69	\$62.80	\$53.12
2015-05-26	\$29.94	\$25.07	\$38.72	\$26.97	\$29.35	\$30.64	\$34.58	\$33.04	\$42.03	\$58.56	\$16.06	\$63.06	\$52.44
2015-05-27	\$29.73	\$25.19	\$39.02	\$27.46	\$29.73	\$31.30	\$35.09	\$33.44	\$41.96	\$58.91	\$16.00	\$63.00	\$52.80
2015-05-28	\$29.62	\$25.21	\$38.98	\$27.42	\$29.64	\$31.40	\$35.20	\$33.16	\$41.76	\$58.90	\$15.52	\$60.77	\$52.68
2015-05-29	\$29.56	\$25.21	\$38.66	\$26.93	\$29.11	\$31.12	\$34.82	\$32.27	\$41.26	\$58.51	\$15.50	\$59.85	\$52.20
2015-06-01	\$29.50	\$25.21	\$38.26	\$26.85	\$29.02	\$31.00	\$34.72	\$32.49	\$40.72	\$58.18	\$15.50	\$60.51	\$52.44
2015-06-02	\$29.83	\$25.25	\$38.42	\$27.25	\$29.28	\$31.58	\$35.40	\$33.59	\$40.50	\$58.54	\$15.93	\$60.41	\$52.32
2015-06-03	\$29.71	\$25.25	\$38.44	\$27.61	\$29.74	\$31.92	\$35.68	\$33.27	\$40.22	\$58.08	\$15.57	\$60.89	\$52.52
2015-06-04	\$29.52	\$25.25	\$38.06	\$27.16	\$29.36	\$31.38	\$35.01	\$32.79	\$39.78	\$57.70	\$15.21	\$60.35	\$52.16
2015-06-05	\$29.39	\$25.25	\$37.72	\$26.70	\$28.82	\$30.64	\$34.71	\$32.72	\$39.59	\$57.04	\$15.12	\$59.94	\$51.84
2015-06-08	\$29.32	\$24.99	\$37.66	\$26.67	\$28.79	\$30.56	\$34.69	\$33.05	\$39.66	\$57.34	\$15.00	\$60.07	\$51.56
2015-06-09	\$29.30	\$24.92	\$37.46	\$26.63	\$28.64	\$30.54	\$34.60	\$33.17	\$39.60	\$57.45	\$15.49	\$59.21	\$51.04
2015-06-10	\$29.37	\$25.19	\$38.40	\$27.26	\$29.56	\$31.52	\$35.45	\$33.63	\$40.00	\$57.94	\$15.72	\$58.77	\$51.88
2015-06-11	\$29.41	\$25.35	\$38.48	\$27.37	\$29.55	\$31.62	\$35.58	\$33.65	\$40.01	\$58.38	\$15.72	\$59.14	\$52.12

2015-06-12	\$29.56	\$25.19	\$38.26	\$26.97	\$29.20	\$31.10	\$35.16	\$33.36	\$39.99	\$58.28	\$15.76	\$59.63	\$51.84
2015-06-15	\$29.27	\$25.12	\$38.04	\$26.63	\$28.80	\$30.52	\$34.70	\$33.09	\$39.51	\$57.83	\$15.24	\$58.04	\$52.00
2015-06-16	\$29.22	\$25.21	\$38.06	\$26.62	\$28.80	\$30.44	\$34.60	\$33.82	\$39.61	\$58.24	\$15.67	\$57.26	\$51.76
2015-06-17	\$29.64	\$25.22	\$38.30	\$26.46	\$28.69	\$30.30	\$34.51	\$33.92	\$39.47	\$58.80	\$15.42	\$57.53	\$51.32
2015-06-18	\$29.89	\$25.57	\$38.68	\$26.74	\$29.27	\$30.94	\$35.18	\$34.53	\$39.51	\$59.10	\$15.42	\$57.81	\$51.36
2015-06-19	\$29.59	\$25.52	\$38.48	\$26.67	\$28.98	\$31.02	\$35.15	\$33.80	\$38.78	\$58.84	\$15.67	\$57.26	\$51.40
2015-06-22	\$29.68	\$25.66	\$38.92	\$27.63	\$29.97	\$32.14	\$36.39	\$34.09	\$39.34	\$59.20	\$15.60	\$57.95	\$52.20
2015-06-23	\$29.72	\$25.64	\$38.94	\$27.61	\$29.90	\$32.02	\$36.09	\$34.12	\$39.81	\$59.22	\$15.60	\$59.34	\$52.80
2015-06-24	\$30.03	\$25.50	\$38.76	\$27.43	\$29.56	\$31.58	\$35.64	\$33.84	\$39.46	\$58.80	\$15.64	\$59.44	\$52.24
2015-06-25	\$29.65	\$25.35	\$38.04	\$26.99	\$29.17	\$31.32	\$35.10	\$32.60	\$38.32	\$58.36	\$15.64	\$57.92	\$52.08
2015-06-26	\$29.81	\$25.35	\$37.80	\$27.12	\$29.29	\$31.56	\$35.33	\$33.08	\$38.33	\$58.37	\$15.59	\$56.42	\$52.32
2015-06-29	\$29.34	\$24.76	\$36.70	\$26.05	\$28.11	\$29.78	\$33.50	\$32.52	\$37.40	\$56.92	\$15.14	\$54.82	\$51.00
2015-06-30	\$29.16	\$24.83	\$36.50	\$25.73	\$27.88	\$29.78	\$33.55	\$32.77	\$38.12	\$57.11	\$15.14	\$56.04	\$51.24
2015-07-01	\$29.25	\$25.11	\$36.58	\$25.92	\$28.12	\$30.18	\$33.53	\$32.26	\$37.59	\$56.75	\$14.97	\$55.64	\$51.60
2015-07-02	\$29.34	\$25.00	\$36.76	\$25.79	\$28.03	\$29.96	\$33.53	\$32.98	\$37.86	\$57.66	\$14.69	\$55.67	\$51.60
2015-07-06	\$29.10	\$24.86	\$36.20	\$24.95	\$27.34	\$28.32	\$32.36	\$31.90	\$36.95	\$57.04	\$14.94	\$52.86	\$51.24
2015-07-07	\$28.74	\$24.68	\$35.90	\$24.99	\$27.43	\$28.12	\$32.64	\$31.77	\$36.55	\$57.18	\$14.41	\$50.72	\$51.36
2015-07-08	\$28.37	\$24.80	\$35.26	\$24.58	\$27.01	\$28.14	\$32.07	\$30.76	\$35.91	\$56.34	\$14.30	\$47.34	\$49.24
2015-07-09	\$28.41	\$24.74	\$35.78	\$25.07	\$27.54	\$29.00	\$32.77	\$31.10	\$36.47	\$56.68	\$14.26	\$49.72	\$49.84
2015-07-10	\$28.68	\$24.96	\$36.84	\$26.41	\$28.89	\$30.60	\$34.54	\$32.06	\$37.45	\$57.41	\$14.28	\$52.28	\$50.64
2015-07-13	\$28.79	\$25.13	\$37.06	\$26.37	\$28.79	\$30.32	\$34.44	\$32.61	\$37.64	\$57.62	\$14.29	\$52.55	\$51.32
2015-07-14	\$28.83	\$25.13	\$37.50	\$26.58	\$28.88	\$30.42	\$34.57	\$32.71	\$38.07	\$57.97	\$14.51	\$52.51	\$51.64
2015-07-15	\$28.54	\$25.30	\$37.42	\$26.45	\$28.77	\$30.52	\$34.52	\$32.46	\$37.79	\$57.58	\$14.28	\$51.28	\$51.60
2015-07-16	\$28.51	\$25.30	\$37.64	\$26.73	\$29.00	\$30.94	\$34.97	\$32.33	\$38.02	\$57.76	\$14.26	\$52.27	\$51.80
2015-07-17	\$28.16	\$25.30	\$37.56	\$26.66	\$28.86	\$30.84	\$34.81	\$31.52	\$37.86	\$57.33	\$14.19	\$52.76	\$51.92
2015-07-20	\$27.56	\$25.32	\$37.58	\$26.74	\$29.00	\$31.12	\$34.98	\$31.14	\$37.80	\$57.30	\$14.15	\$52.53	\$51.92
2015-07-21	\$27.73	\$25.16	\$37.34	\$26.78	\$28.89	\$31.04	\$34.94	\$31.29	\$37.70	\$57.25	\$13.75	\$52.82	\$51.76
2015-07-22	\$27.49	\$25.19	\$37.04	\$26.66	\$28.69	\$30.96	\$35.02	\$30.46	\$37.06	\$55.91	\$13.65	\$52.15	\$51.52
2015-07-23	\$27.10	\$25.12	\$36.56	\$26.69	\$28.66	\$30.94	\$34.90	\$29.22	\$36.63	\$55.96	\$13.53	\$52.14	\$51.48

2015-07-24	\$26.92	\$25.12	\$36.06	\$26.51	\$28.25	\$30.70	\$34.38	\$28.50	\$36.17	\$54.99	\$13.41	\$51.56	\$51.00
2015-07-27	\$26.46	\$24.64	\$35.90	\$26.22	\$27.93	\$30.08	\$34.38	\$28.05	\$35.38	\$54.32	\$13.00	\$49.27	\$50.80
2015-07-28	\$26.76	\$24.77	\$36.48	\$26.51	\$28.24	\$30.92	\$34.76	\$28.53	\$35.39	\$54.85	\$13.00	\$50.14	\$51.04
2015-07-29	\$27.16	\$25.09	\$36.76	\$26.54	\$28.22	\$30.66	\$34.63	\$29.09	\$35.59	\$55.18	\$13.41	\$50.82	\$51.24
2015-07-30	\$26.92	\$25.07	\$36.98	\$26.50	\$28.06	\$30.62	\$34.15	\$28.51	\$35.00	\$55.08	\$13.40	\$50.13	\$51.32
2015-07-31	\$26.93	\$25.14	\$37.08	\$26.78	\$28.33	\$30.96	\$34.26	\$28.69	\$35.72	\$56.34	\$13.51	\$50.04	\$51.72
2015-08-03	\$26.46	\$25.18	\$36.86	\$26.85	\$28.53	\$30.96	\$34.36	\$28.04	\$35.26	\$56.33	\$13.10	\$49.26	\$51.52
2015-08-04	\$26.23	\$24.96	\$37.02	\$26.77	\$28.52	\$30.66	\$33.92	\$28.00	\$35.14	\$56.43	\$13.15	\$49.50	\$51.44
2015-08-05	\$26.08	\$25.16	\$37.28	\$27.07	\$28.84	\$31.02	\$34.18	\$27.77	\$35.33	\$55.70	\$13.00	\$49.86	\$51.76
2015-08-06	\$26.11	\$24.97	\$37.18	\$27.17	\$28.85	\$31.04	\$34.24	\$27.21	\$35.38	\$55.78	\$12.78	\$49.30	\$51.60
2015-08-07	\$25.88	\$24.97	\$37.08	\$27.14	\$28.76	\$31.20	\$34.24	\$26.78	\$35.82	\$56.29	\$12.74	\$49.81	\$51.76
2015-08-10	\$26.37	\$24.97	\$37.36	\$27.44	\$29.14	\$31.76	\$34.78	\$27.74	\$36.18	\$56.84	\$12.95	\$50.95	\$52.52
2015-08-11	\$25.94	\$24.97	\$36.92	\$27.07	\$28.48	\$31.48	\$34.46	\$26.99	\$35.32	\$55.40	\$12.95	\$50.32	\$51.60
2015-08-12	\$25.69	\$24.78	\$36.78	\$26.76	\$28.18	\$31.30	\$34.42	\$26.78	\$35.24	\$54.98	\$12.77	\$49.35	\$51.28
2015-08-13	\$25.30	\$25.02	\$36.60	\$26.66	\$28.01	\$31.26	\$34.08	\$26.17	\$34.46	\$54.31	\$12.60	\$49.54	\$51.68
2015-08-14	\$24.33	\$25.02	\$36.76	\$26.62	\$28.07	\$31.20	\$33.97	\$26.29	\$34.54	\$54.29	\$12.55	\$49.73	\$51.68
2015-08-17	\$23.83	\$25.10	\$36.54	\$26.62	\$27.81	\$31.22	\$33.80	\$26.16	\$34.12	\$54.39	\$12.50	\$49.51	\$51.80
2015-08-18	\$23.53	\$25.27	\$36.44	\$26.35	\$27.50	\$30.90	\$33.48	\$26.36	\$34.02	\$54.23	\$12.34	\$48.43	\$51.44
2015-08-19	\$23.24	\$25.12	\$35.86	\$26.19	\$27.21	\$30.74	\$33.51	\$25.75	\$33.90	\$53.23	\$12.09	\$47.38	\$50.88
2015-08-20	\$23.01	\$24.79	\$35.34	\$25.54	\$26.46	\$29.78	\$32.80	\$26.01	\$34.02	\$52.36	\$11.88	\$45.97	\$49.36
2015-08-21	\$22.16	\$23.91	\$34.36	\$25.14	\$26.01	\$29.24	\$32.31	\$25.10	\$33.11	\$50.53	\$11.42	\$44.57	\$47.68
2015-08-24	\$20.85	\$22.80	\$33.08	\$24.40	\$25.63	\$28.26	\$31.34	\$24.01	\$31.94	\$48.91	\$10.48	\$41.38	\$46.00
2015-08-25	\$20.68	\$22.75	\$33.20	\$24.50	\$25.81	\$28.76	\$31.40	\$23.80	\$32.12	\$49.44	\$10.68	\$42.64	\$46.28
2015-08-26	\$20.94	\$23.24	\$33.60	\$25.02	\$26.48	\$29.68	\$32.10	\$24.76	\$33.11	\$50.48	\$10.54	\$43.74	\$48.12
2015-08-27	\$22.50	\$23.81	\$34.14	\$25.26	\$26.64	\$30.02	\$32.36	\$25.98	\$34.80	\$52.44	\$11.11	\$45.86	\$49.00
2015-08-28	\$23.23	\$23.76	\$34.30	\$25.06	\$26.36	\$29.72	\$32.25	\$25.39	\$34.63	\$52.43	\$11.92	\$44.67	\$49.24
2015-08-31	\$23.17	\$23.69	\$34.12	\$25.02	\$26.34	\$29.60	\$32.03	\$24.88	\$35.03	\$52.85	\$12.07	\$44.10	\$48.48
2015-09-01	\$22.50	\$22.99	\$32.84	\$24.42	\$25.70	\$28.84	\$31.11	\$23.73	\$34.53	\$51.25	\$11.85	\$42.07	\$46.28
2015-09-02	\$22.74	\$23.19	\$33.46	\$24.75	\$26.05	\$29.26	\$31.27	\$23.94	\$34.71	\$51.88	\$11.61	\$42.61	\$47.12

2015-09-03	\$22.95	\$23.19	\$33.48	\$24.73	\$26.13	\$29.36	\$30.82	\$24.23	\$35.11	\$52.17	\$12.00	\$42.86	\$47.48
2015-09-04	\$22.50	\$23.24	\$32.70	\$24.19	\$25.58	\$28.64	\$30.31	\$23.10	\$34.26	\$51.25	\$11.89	\$41.67	\$45.96
2015-09-08	\$22.88	\$23.24	\$33.86	\$24.86	\$26.50	\$29.64	\$30.87	\$23.57	\$34.20	\$52.05	\$11.94	\$44.41	\$47.04
2015-09-09	\$22.71	\$23.89	\$33.70	\$24.74	\$26.12	\$29.26	\$30.77	\$23.49	\$33.93	\$51.64	\$11.93	\$44.40	\$46.96
2015-09-10	\$22.93	\$23.89	\$34.00	\$25.03	\$26.48	\$29.80	\$31.06	\$23.15	\$34.42	\$52.05	\$12.03	\$44.58	\$46.92
2015-09-11	\$23.03	\$23.53	\$33.90	\$24.95	\$26.48	\$29.76	\$30.89	\$22.90	\$34.24	\$51.90	\$12.22	\$44.90	\$46.96
2015-09-14	\$22.93	\$23.61	\$33.52	\$24.65	\$26.35	\$29.30	\$30.57	\$23.77	\$34.33	\$52.18	\$12.12	\$44.45	\$46.84
2015-09-15	\$22.89	\$23.83	\$33.78	\$24.84	\$26.47	\$29.74	\$30.83	\$23.59	\$34.63	\$52.68	\$12.44	\$44.97	\$47.20
2015-09-16	\$23.14	\$23.83	\$34.56	\$25.18	\$26.57	\$29.96	\$31.28	\$24.42	\$35.57	\$54.11	\$12.49	\$46.31	\$47.60
2015-09-17	\$23.36	\$24.39	\$34.36	\$25.47	\$26.74	\$30.26	\$31.92	\$24.14	\$35.65	\$53.79	\$12.59	\$45.66	\$47.56
2015-09-18	\$22.92	\$23.80	\$33.76	\$24.64	\$25.76	\$29.12	\$30.95	\$22.73	\$34.98	\$53.25	\$12.34	\$44.75	\$46.04
2015-09-21	\$22.86	\$23.80	\$33.78	\$24.63	\$25.57	\$29.18	\$30.61	\$22.51	\$34.75	\$53.24	\$12.06	\$45.54	\$46.32
2015-09-22	\$22.51	\$23.37	\$32.72	\$23.90	\$24.60	\$28.38	\$29.73	\$21.90	\$33.47	\$52.25	\$11.68	\$44.80	\$45.64
2015-09-23	\$22.32	\$23.30	\$32.72	\$23.88	\$24.61	\$28.20	\$29.37	\$20.99	\$32.68	\$51.31	\$11.43	\$44.07	\$45.64
2015-09-24	\$22.29	\$23.30	\$32.74	\$23.76	\$24.56	\$28.14	\$29.27	\$21.77	\$33.13	\$51.49	\$11.47	\$43.85	\$45.32
2015-09-25	\$22.29	\$23.30	\$32.92	\$24.04	\$24.70	\$28.38	\$29.24	\$21.64	\$33.07	\$50.97	\$11.53	\$43.66	\$46.44
2015-09-28	\$21.73	\$22.51	\$32.06	\$23.52	\$24.33	\$27.76	\$29.09	\$20.64	\$32.11	\$50.06	\$11.40	\$42.63	\$45.32
2015-09-29	\$21.83	\$22.51	\$32.04	\$23.65	\$24.42	\$27.96	\$29.40	\$20.98	\$32.34	\$50.56	\$11.41	\$42.72	\$44.76
2015-09-30	\$22.16	\$23.05	\$32.78	\$24.07	\$24.74	\$28.64	\$29.66	\$21.95	\$32.96	\$51.56	\$11.40	\$43.81	\$45.72
2015-10-01	\$22.30	\$23.09	\$32.90	\$24.06	\$24.53	\$28.54	\$29.91	\$21.94	\$32.90	\$51.47	\$11.65	\$44.11	\$46.04
2015-10-02	\$22.43	\$23.09	\$33.78	\$24.49	\$24.86	\$29.34	\$30.39	\$23.02	\$33.67	\$52.06	\$11.65	\$45.84	\$46.60
2015-10-05	\$23.26	\$23.72	\$34.32	\$25.05	\$25.29	\$29.76	\$31.25	\$23.62	\$34.51	\$53.06	\$12.21	\$46.46	\$47.76
2015-10-06	\$23.39	\$23.72	\$34.38	\$25.24	\$25.50	\$29.90	\$31.62	\$23.85	\$34.98	\$53.39	\$12.55	\$45.84	\$47.36
2015-10-07	\$23.67	\$23.70	\$34.96	\$25.46	\$25.81	\$30.04	\$32.14	\$24.31	\$35.47	\$53.83	\$12.88	\$47.51	\$48.12
2015-10-08	\$23.74	\$23.76	\$35.34	\$25.66	\$26.04	\$30.30	\$32.37	\$24.96	\$35.51	\$54.61	\$12.99	\$47.86	\$48.28
2015-10-09	\$24.20	\$24.00	\$35.16	\$25.71	\$26.26	\$30.46	\$32.67	\$25.25	\$35.70	\$54.98	\$13.08	\$47.54	\$48.40
2015-10-12	\$23.78	\$23.94	\$35.02	\$25.63	\$26.24	\$30.08	\$32.45	\$24.69	\$35.92	\$54.66	\$13.13	\$47.61	\$48.48
2015-10-13	\$23.67	\$23.91	\$34.40	\$25.39	\$26.00	\$30.08	\$31.98	\$23.41	\$35.16	\$54.17	\$12.78	\$47.04	\$47.96
2015-10-14	\$23.82	\$23.91	\$34.70	\$25.56	\$26.05	\$30.20	\$32.16	\$23.65	\$35.16	\$54.39	\$12.72	\$47.11	\$47.40

2015-10-15	\$23.90	\$23.91	\$35.36	\$25.82	\$26.36	\$30.70	\$32.30	\$23.95	\$35.56	\$54.87	\$12.70	\$48.82	\$48.60
2015-10-16	\$23.69	\$24.00	\$35.28	\$25.79	\$26.24	\$30.54	\$32.50	\$23.73	\$35.79	\$55.15	\$12.64	\$48.92	\$48.84
2015-10-19	\$23.41	\$24.12	\$35.16	\$25.70	\$26.27	\$30.54	\$32.24	\$23.55	\$35.03	\$54.95	\$12.37	\$48.49	\$48.60
2015-10-20	\$23.35	\$24.12	\$35.08	\$25.55	\$26.26	\$30.36	\$32.03	\$23.19	\$34.99	\$54.88	\$12.38	\$48.50	\$48.32
2015-10-21	\$23.12	\$24.07	\$34.86	\$25.54	\$26.33	\$30.14	\$32.06	\$22.89	\$34.68	\$54.34	\$12.20	\$47.89	\$48.96
2015-10-22	\$23.38	\$24.14	\$35.20	\$25.80	\$26.75	\$30.38	\$32.26	\$23.67	\$35.40	\$55.23	\$12.51	\$49.01	\$49.56
2015-10-23	\$23.62	\$24.17	\$35.40	\$26.20	\$27.20	\$30.22	\$32.22	\$23.60	\$35.80	\$55.10	\$12.42	\$49.89	\$50.04
2015-10-26	\$23.57	\$24.26	\$35.24	\$26.03	\$27.20	\$30.04	\$32.21	\$23.29	\$35.77	\$55.37	\$12.42	\$48.90	\$50.00
2015-10-27	\$23.28	\$24.22	\$34.88	\$25.80	\$26.93	\$29.70	\$31.73	\$23.16	\$35.41	\$54.93	\$12.10	\$48.53	\$49.60
2015-10-28	\$23.23	\$24.48	\$35.24	\$25.90	\$27.13	\$29.96	\$31.80	\$22.96	\$35.47	\$54.67	\$12.21	\$47.96	\$50.08
2015-10-29	\$23.12	\$24.49	\$35.02	\$25.77	\$27.05	\$29.66	\$31.60	\$22.78	\$35.03	\$54.40	\$12.20	\$47.45	\$49.52
2015-10-30	\$22.98	\$24.52	\$34.94	\$25.79	\$27.11	\$29.62	\$31.45	\$22.87	\$34.89	\$54.72	\$12.27	\$47.30	\$49.28
2015-11-02	\$23.03	\$24.74	\$35.28	\$26.16	\$27.52	\$29.90	\$31.84	\$23.44	\$35.01	\$55.26	\$12.32	\$47.76	\$49.64
2015-11-03	\$23.20	\$24.74	\$35.28	\$26.05	\$27.33	\$29.72	\$31.85	\$24.77	\$35.62	\$56.11	\$12.58	\$47.83	\$49.60
2015-11-04	\$23.01	\$24.74	\$35.30	\$25.85	\$26.85	\$29.14	\$31.56	\$24.12	\$35.28	\$55.70	\$12.52	\$48.35	\$49.36
2015-11-05	\$22.75	\$24.72	\$34.72	\$26.03	\$26.91	\$29.02	\$31.38	\$24.46	\$34.94	\$55.15	\$12.38	\$48.58	\$49.72
2015-11-06	\$22.80	\$24.69	\$34.34	\$25.83	\$26.92	\$29.20	\$31.30	\$24.10	\$34.53	\$54.53	\$12.37	\$48.27	\$49.60
2015-11-09	\$22.61	\$24.41	\$34.08	\$25.46	\$26.48	\$28.74	\$30.91	\$23.36	\$33.98	\$53.57	\$12.10	\$47.26	\$49.40
2015-11-10	\$22.56	\$24.49	\$34.02	\$25.35	\$26.41	\$28.90	\$30.76	\$23.78	\$33.92	\$53.70	\$12.07	\$46.96	\$49.92
2015-11-11	\$22.72	\$24.49	\$34.20	\$25.47	\$26.49	\$28.76	\$30.75	\$24.28	\$34.00	\$53.90	\$11.85	\$47.04	\$50.12
2015-11-12	\$22.38	\$24.49	\$33.50	\$25.07	\$26.31	\$28.08	\$30.18	\$23.69	\$33.70	\$53.41	\$11.26	\$46.99	\$49.64
2015-11-13	\$22.16	\$23.84	\$33.24	\$24.80	\$26.05	\$28.04	\$30.05	\$23.23	\$33.40	\$52.99	\$10.97	\$46.20	\$49.40
2015-11-16	\$22.13	\$23.83	\$33.90	\$25.02	\$26.26	\$28.30	\$30.31	\$23.96	\$33.40	\$53.54	\$10.96	\$46.99	\$49.88
2015-11-17	\$21.91	\$23.83	\$34.04	\$25.09	\$26.38	\$28.24	\$30.32	\$23.88	\$32.87	\$53.54	\$10.61	\$46.75	\$50.00
2015-11-18	\$22.16	\$23.83	\$34.42	\$25.32	\$26.70	\$28.34	\$30.62	\$24.61	\$33.18	\$54.06	\$10.55	\$47.21	\$50.24
2015-11-19	\$22.09	\$24.32	\$34.70	\$25.39	\$26.98	\$28.40	\$30.90	\$25.13	\$33.32	\$54.88	\$10.63	\$47.30	\$50.24
2015-11-20	\$22.22	\$24.50	\$34.36	\$25.18	\$26.86	\$28.12	\$30.46	\$25.48	\$33.84	\$55.50	\$10.99	\$48.02	\$50.48
2015-11-23	\$21.90	\$24.50	\$34.08	\$24.97	\$26.72	\$28.26	\$30.26	\$24.85	\$33.18	\$55.20	\$10.76	\$47.63	\$50.24
2015-11-24	\$22.01	\$24.50	\$34.10	\$24.79	\$26.54	\$28.10	\$30.41	\$25.23	\$33.18	\$55.13	\$10.64	\$47.64	\$50.48

2015-11-25	\$21.75	\$24.55	\$34.34	\$24.94	\$26.89	\$28.42	\$30.19	\$24.06	\$32.95	\$54.67	\$10.56	\$47.48	\$50.16
2015-11-27	\$21.53	\$24.55	\$34.36	\$25.14	\$27.17	\$28.74	\$30.35	\$23.34	\$32.52	\$54.26	\$10.30	\$46.26	\$49.92
2015-11-30	\$21.55	\$24.55	\$34.36	\$25.19	\$27.25	\$28.78	\$30.45	\$22.52	\$32.44	\$53.59	\$10.32	\$46.75	\$49.52
2015-12-01	\$21.65	\$24.60	\$34.70	\$25.28	\$27.27	\$28.84	\$30.84	\$22.58	\$32.22	\$54.40	\$10.37	\$46.95	\$50.28
2015-12-02	\$21.21	\$24.43	\$34.20	\$24.96	\$26.83	\$28.40	\$30.34	\$23.14	\$31.91	\$53.43	\$10.02	\$46.56	\$49.88
2015-12-03	\$21.23	\$24.09	\$33.78	\$24.76	\$26.67	\$28.62	\$30.44	\$23.91	\$32.16	\$52.51	\$10.09	\$46.26	\$49.40
2015-12-04	\$21.64	\$24.50	\$34.02	\$25.09	\$26.93	\$29.04	\$30.90	\$23.48	\$32.18	\$52.80	\$10.07	\$46.75	\$49.68
2015-12-07	\$21.37	\$24.43	\$33.64	\$25.07	\$26.99	\$28.64	\$30.40	\$23.29	\$31.70	\$51.68	\$9.27	\$46.27	\$49.56
2015-12-08	\$20.89	\$24.19	\$33.02	\$24.73	\$26.52	\$28.06	\$29.84	\$23.31	\$31.33	\$50.82	\$9.28	\$45.62	\$48.92
2015-12-09	\$21.11	\$24.00	\$33.06	\$24.53	\$26.40	\$28.16	\$29.99	\$23.90	\$31.58	\$50.85	\$9.30	\$45.21	\$48.36
2015-12-10	\$21.02	\$24.15	\$32.96	\$24.48	\$26.41	\$27.98	\$29.81	\$22.89	\$31.42	\$50.50	\$9.30	\$44.92	\$48.80
2015-12-11	\$20.74	\$23.62	\$32.36	\$24.07	\$25.78	\$27.46	\$29.35	\$22.47	\$31.02	\$49.28	\$9.34	\$43.66	\$48.04
2015-12-14	\$20.48	\$23.50	\$32.26	\$24.10	\$25.75	\$27.38	\$29.21	\$22.39	\$30.86	\$49.50	\$9.11	\$44.20	\$48.48
2015-12-15	\$20.57	\$23.83	\$32.42	\$24.34	\$26.04	\$27.78	\$29.56	\$22.37	\$31.33	\$51.13	\$9.46	\$44.94	\$48.28
2015-12-16	\$20.80	\$24.24	\$32.96	\$24.78	\$26.48	\$28.12	\$30.03	\$22.85	\$31.99	\$52.14	\$9.76	\$45.69	\$49.48
2015-12-17	\$20.52	\$24.03	\$32.52	\$24.42	\$26.40	\$27.74	\$29.71	\$22.24	\$32.29	\$52.12	\$9.93	\$45.12	\$49.00
2015-12-18	\$20.18	\$23.57	\$32.08	\$24.06	\$26.09	\$27.42	\$29.28	\$21.22	\$32.15	\$51.31	\$9.70	\$45.35	\$48.40
2015-12-21	\$20.05	\$23.70	\$31.66	\$24.14	\$26.27	\$27.60	\$28.20	\$20.74	\$32.27	\$50.91	\$9.73	\$45.15	\$48.20
2015-12-22	\$20.20	\$24.05	\$31.88	\$24.29	\$26.38	\$27.80	\$28.42	\$20.93	\$32.16	\$51.08	\$9.79	\$45.28	\$48.56
2015-12-23	\$20.58	\$24.25	\$32.72	\$24.69	\$26.79	\$28.22	\$29.06	\$21.53	\$32.79	\$51.17	\$10.29	\$45.95	\$49.08
2015-12-24	\$20.86	\$24.22	\$32.78	\$24.61	\$26.79	\$28.18	\$29.11	\$21.49	\$32.47	\$50.94	\$10.63	\$45.81	\$48.48
2015-12-28	\$20.38	\$24.11	\$32.62	\$24.51	\$26.73	\$28.14	\$28.87	\$21.72	\$32.33	\$50.86	\$10.60	\$45.21	\$48.52
2015-12-29	\$20.28	\$24.39	\$32.82	\$24.74	\$27.04	\$28.34	\$28.94	\$21.60	\$32.33	\$50.54	\$10.50	\$45.30	\$49.24
2015-12-30	\$20.20	\$24.31	\$32.60	\$24.56	\$26.62	\$27.92	\$28.78	\$20.79	\$32.13	\$49.75	\$10.42	\$44.76	\$48.96
2015-12-31	\$20.18	\$24.05	\$32.28	\$24.21	\$26.19	\$27.48	\$28.27	\$20.68	\$31.92	\$49.83	\$10.57	\$44.62	\$48.48
2016-01-04	\$20.06	\$23.65	\$31.76	\$23.82	\$25.56	\$27.08	\$27.89	\$19.94	\$31.57	\$49.07	\$10.30	\$43.07	\$47.72
2016-01-05	\$20.08	\$23.85	\$31.68	\$23.59	\$25.32	\$27.00	\$27.65	\$20.22	\$31.80	\$48.92	\$10.32	\$43.03	\$48.32
2016-01-06	\$19.74	\$23.49	\$31.10	\$23.22	\$25.03	\$26.28	\$27.13	\$19.92	\$31.55	\$47.92	\$10.11	\$42.31	\$47.48
2016-01-07	\$19.32	\$23.03	\$30.24	\$22.90	\$24.53	\$26.00	\$26.74	\$19.18	\$30.45	\$46.05	\$9.92	\$40.58	\$46.76

2016-01-08	\$19.15	\$22.87	\$30.04	\$22.71	\$24.29	\$25.80	\$26.49	\$19.09	\$30.04	\$45.37	\$9.92	\$39.98	\$45.76
2016-01-11	\$18.88	\$22.49	\$30.12	\$22.76	\$24.48	\$25.74	\$26.58	\$18.93	\$30.03	\$46.01	\$9.77	\$39.81	\$46.08
2016-01-12	\$18.71	\$22.84	\$30.14	\$23.06	\$24.87	\$26.00	\$26.77	\$19.02	\$29.96	\$46.30	\$9.53	\$39.92	\$45.84
2016-01-13	\$18.46	\$22.31	\$29.64	\$22.62	\$24.25	\$25.64	\$26.23	\$18.58	\$30.18	\$46.01	\$9.80	\$39.06	\$45.44
2016-01-14	\$18.53	\$22.57	\$30.20	\$22.82	\$24.53	\$25.92	\$26.53	\$19.05	\$30.38	\$46.46	\$9.96	\$39.57	\$46.00
2016-01-15	\$18.22	\$22.15	\$29.00	\$22.11	\$23.63	\$24.88	\$25.54	\$18.34	\$29.69	\$44.79	\$9.96	\$37.80	\$44.72
2016-01-19	\$18.01	\$22.13	\$29.12	\$22.39	\$23.92	\$24.44	\$25.52	\$18.23	\$29.76	\$44.92	\$9.52	\$38.66	\$45.08
2016-01-20	\$18.12	\$21.94	\$28.50	\$21.92	\$23.49	\$23.56	\$24.97	\$17.79	\$29.62	\$44.35	\$9.36	\$37.54	\$43.36
2016-01-21	\$18.12	\$21.99	\$28.90	\$22.08	\$23.73	\$24.24	\$25.22	\$17.33	\$29.64	\$44.14	\$9.80	\$37.72	\$43.20
2016-01-22	\$18.63	\$22.46	\$29.76	\$22.76	\$24.18	\$24.62	\$26.01	\$18.08	\$30.82	\$45.49	\$9.80	\$38.95	\$45.16
2016-01-25	\$18.55	\$22.11	\$29.22	\$22.49	\$23.97	\$23.96	\$25.34	\$17.63	\$30.43	\$44.62	\$9.80	\$38.15	\$44.20
2016-01-26	\$19.04	\$22.37	\$29.92	\$22.98	\$24.43	\$24.50	\$26.00	\$17.94	\$30.73	\$45.72	\$9.81	\$38.41	\$44.80
2016-01-27	\$19.12	\$22.08	\$29.68	\$22.82	\$24.26	\$24.10	\$25.80	\$18.18	\$30.78	\$45.63	\$9.81	\$37.82	\$44.84
2016-01-28	\$19.31	\$22.15	\$30.06	\$22.94	\$24.16	\$23.80	\$25.84	\$18.49	\$31.53	\$46.49	\$10.21	\$38.17	\$44.92
2016-01-29	\$19.59	\$22.61	\$30.72	\$23.29	\$24.33	\$24.14	\$26.36	\$19.83	\$32.63	\$48.39	\$10.35	\$39.28	\$46.00
2016-02-01	\$19.59	\$22.76	\$30.76	\$23.28	\$24.31	\$24.06	\$26.33	\$19.88	\$32.82	\$48.12	\$10.35	\$38.63	\$45.72
2016-02-02	\$18.97	\$22.21	\$29.84	\$22.59	\$23.70	\$23.14	\$25.33	\$18.59	\$31.65	\$46.73	\$10.03	\$37.57	\$45.24
2016-02-03	\$19.57	\$22.25	\$30.26	\$23.00	\$24.15	\$23.24	\$25.51	\$19.72	\$32.20	\$47.82	\$10.03	\$38.11	\$44.68
2016-02-04	\$20.00	\$22.27	\$30.34	\$23.08	\$24.06	\$23.52	\$26.07	\$20.55	\$32.99	\$48.30	\$10.26	\$37.74	\$44.56
2016-02-05	\$20.37	\$21.95	\$29.86	\$22.75	\$23.60	\$22.90	\$26.01	\$20.06	\$32.58	\$47.11	\$10.25	\$37.37	\$43.80
2016-02-08	\$20.21	\$21.54	\$29.08	\$22.22	\$23.01	\$22.08	\$25.05	\$19.59	\$32.40	\$46.12	\$10.05	\$36.58	\$43.72
2016-02-09	\$19.81	\$21.64	\$28.80	\$22.01	\$22.97	\$21.56	\$24.63	\$19.32	\$32.19	\$45.33	\$10.08	\$36.05	\$42.88
2016-02-10	\$20.20	\$21.72	\$28.78	\$22.08	\$23.04	\$22.18	\$24.95	\$19.73	\$32.28	\$45.35	\$10.08	\$36.34	\$42.12
2016-02-11	\$20.35	\$21.35	\$28.40	\$21.69	\$22.87	\$21.52	\$24.29	\$18.90	\$32.03	\$44.15	\$9.88	\$35.70	\$41.28
2016-02-12	\$21.28	\$21.76	\$29.28	\$21.88	\$23.12	\$22.14	\$24.50	\$19.34	\$32.79	\$45.19	\$10.15	\$36.56	\$41.64
2016-02-16	\$21.26	\$22.25	\$29.70	\$22.42	\$23.44	\$22.68	\$25.07	\$19.48	\$32.97	\$46.01	\$10.23	\$38.03	\$43.16
2016-02-17	\$21.43	\$22.55	\$30.38	\$22.92	\$23.94	\$23.06	\$25.65	\$20.21	\$33.54	\$47.76	\$10.18	\$38.66	\$43.52
2016-02-18	\$21.38	\$22.56	\$30.22	\$22.78	\$23.97	\$22.52	\$25.12	\$19.69	\$33.57	\$47.85	\$10.66	\$38.30	\$43.52
2016-02-19	\$21.31	\$22.44	\$30.18	\$22.80	\$23.89	\$22.32	\$24.94	\$19.81	\$33.75	\$47.81	\$10.62	\$38.54	\$43.32

2016-02-22	\$21.64	\$22.76	\$30.20	\$22.97	\$24.14	\$22.96	\$25.36	\$21.10	\$34.03	\$48.64	\$10.79	\$39.55	\$44.04
2016-02-23	\$21.50	\$22.67	\$29.48	\$22.61	\$23.70	\$22.40	\$24.96	\$20.55	\$33.39	\$47.73	\$10.75	\$38.49	\$43.32
2016-02-24	\$21.72	\$22.75	\$29.32	\$22.57	\$23.40	\$22.28	\$24.61	\$20.39	\$33.26	\$47.81	\$10.75	\$38.55	\$43.76
2016-02-25	\$21.80	\$22.85	\$29.84	\$22.87	\$23.66	\$22.58	\$25.01	\$20.36	\$33.49	\$48.35	\$10.84	\$38.39	\$44.28
2016-02-26	\$21.90	\$22.98	\$29.82	\$22.76	\$23.65	\$22.64	\$25.01	\$20.01	\$33.36	\$47.85	\$10.98	\$38.43	\$44.24
2016-02-29	\$21.92	\$22.91	\$29.76	\$22.70	\$23.36	\$22.56	\$25.04	\$20.49	\$33.19	\$48.48	\$10.99	\$38.35	\$43.56
2016-03-01	\$22.24	\$23.31	\$30.52	\$23.28	\$24.24	\$23.36	\$25.79	\$21.57	\$34.07	\$49.90	\$11.48	\$39.68	\$44.64
2016-03-02	\$23.11	\$23.49	\$30.68	\$23.25	\$24.22	\$23.56	\$26.17	\$22.11	\$34.42	\$50.65	\$11.52	\$40.34	\$45.28
2016-03-03	\$23.34	\$23.55	\$30.94	\$23.50	\$24.46	\$24.04	\$26.56	\$23.74	\$34.97	\$50.43	\$11.75	\$40.32	\$45.60
2016-03-04	\$24.14	\$23.68	\$31.14	\$23.63	\$24.56	\$23.90	\$26.56	\$24.99	\$35.40	\$50.99	\$11.91	\$41.41	\$46.08
2016-03-07	\$24.45	\$23.75	\$31.24	\$23.64	\$24.49	\$23.68	\$26.56	\$24.81	\$35.41	\$51.37	\$12.11	\$41.00	\$45.60
2016-03-08	\$24.02	\$23.46	\$30.82	\$23.42	\$24.24	\$23.62	\$26.41	\$24.92	\$34.95	\$50.09	\$11.65	\$40.08	\$45.16
2016-03-09	\$24.60	\$23.50	\$30.98	\$23.54	\$24.34	\$23.76	\$26.43	\$25.20	\$35.15	\$50.69	\$11.88	\$40.23	\$45.12
2016-03-10	\$24.63	\$23.57	\$30.74	\$23.59	\$24.25	\$24.12	\$26.98	\$25.97	\$35.27	\$50.38	\$11.56	\$39.91	\$44.92
2016-03-11	\$24.90	\$24.06	\$31.38	\$24.31	\$25.11	\$25.30	\$28.06	\$26.16	\$35.57	\$51.27	\$11.98	\$41.31	\$46.12
2016-03-14	\$24.97	\$24.01	\$31.26	\$24.25	\$25.24	\$25.04	\$27.98	\$25.40	\$35.51	\$50.89	\$11.89	\$41.33	\$46.32
2016-03-15	\$24.64	\$23.86	\$30.88	\$24.12	\$25.13	\$24.82	\$27.54	\$23.78	\$35.18	\$50.06	\$11.71	\$41.04	\$45.72
2016-03-16	\$25.01	\$24.03	\$31.26	\$24.36	\$25.52	\$25.06	\$27.72	\$24.30	\$35.53	\$51.41	\$11.75	\$41.49	\$45.80
2016-03-17	\$25.80	\$24.16	\$31.90	\$24.36	\$25.51	\$25.06	\$27.92	\$26.45	\$36.56	\$52.87	\$12.15	\$41.76	\$45.96
2016-03-18	\$26.13	\$24.31	\$31.78	\$24.44	\$25.55	\$24.92	\$28.07	\$26.80	\$36.63	\$52.99	\$12.06	\$42.15	\$45.80
2016-03-21	\$26.24	\$24.26	\$31.60	\$24.26	\$25.52	\$25.04	\$27.93	\$26.91	\$36.75	\$53.01	\$12.17	\$42.38	\$46.00
2016-03-22	\$26.17	\$24.41	\$31.22	\$24.14	\$25.52	\$24.96	\$27.77	\$26.93	\$36.55	\$53.18	\$12.62	\$42.08	\$46.28
2016-03-23	\$25.75	\$24.07	\$30.88	\$23.97	\$25.43	\$24.40	\$27.32	\$25.67	\$35.82	\$52.47	\$12.23	\$41.44	\$45.68
2016-03-24	\$25.72	\$23.93	\$30.78	\$23.69	\$25.17	\$24.20	\$27.12	\$25.68	\$35.71	\$52.34	\$12.34	\$41.24	\$45.40
2016-03-28	\$25.57	\$24.15	\$31.00	\$23.74	\$25.24	\$24.34	\$27.22	\$26.68	\$35.79	\$52.91	\$12.38	\$41.55	\$46.08
2016-03-29	\$25.98	\$24.34	\$31.36	\$24.13	\$25.59	\$24.48	\$27.53	\$26.74	\$36.06	\$53.66	\$12.19	\$42.06	\$46.56
2016-03-30	\$26.32	\$24.35	\$31.62	\$24.46	\$25.93	\$24.74	\$27.61	\$26.86	\$36.74	\$54.12	\$12.54	\$42.57	\$46.40
2016-03-31	\$26.35	\$24.35	\$31.36	\$24.18	\$25.73	\$24.40	\$27.18	\$26.30	\$36.90	\$53.70	\$12.72	\$42.51	\$45.64
2016-04-01	\$26.02	\$24.43	\$31.06	\$23.97	\$25.52	\$24.08	\$27.02	\$26.89	\$36.98	\$53.68	\$12.78	\$42.36	\$44.52

2016-04-04	\$25.52	\$24.43	\$31.16	\$23.98	\$25.40	\$23.76	\$26.83	\$25.55	\$36.82	\$52.96	\$12.65	\$41.87	\$44.52
2016-04-05	\$25.45	\$24.12	\$30.54	\$23.46	\$24.80	\$23.02	\$26.24	\$25.39	\$36.28	\$51.61	\$12.44	\$41.00	\$43.56
2016-04-06	\$25.09	\$24.18	\$30.98	\$23.82	\$25.15	\$23.40	\$26.48	\$25.17	\$36.04	\$52.05	\$12.25	\$41.90	\$44.28
2016-04-07	\$24.27	\$23.88	\$30.52	\$23.37	\$24.60	\$22.56	\$25.79	\$24.96	\$35.35	\$50.95	\$12.07	\$41.19	\$44.04
2016-04-08	\$25.08	\$24.03	\$31.06	\$23.75	\$25.02	\$23.52	\$26.41	\$26.56	\$35.72	\$51.22	\$12.26	\$41.57	\$45.32
2016-04-11	\$27.66	\$23.98	\$31.22	\$23.76	\$25.11	\$23.82	\$26.60	\$27.19	\$35.91	\$51.53	\$12.59	\$42.03	\$45.04
2016-04-12	\$29.00	\$24.17	\$31.72	\$24.07	\$25.43	\$23.62	\$26.89	\$28.10	\$36.57	\$52.57	\$12.89	\$42.62	\$46.08
2016-04-13	\$28.93	\$24.44	\$32.12	\$24.53	\$25.74	\$24.22	\$27.54	\$28.92	\$36.86	\$52.91	\$12.98	\$44.10	\$47.36
2016-04-14	\$28.47	\$24.36	\$32.08	\$24.54	\$25.83	\$24.32	\$27.55	\$28.55	\$37.11	\$53.02	\$12.96	\$44.03	\$47.56
2016-04-15	\$28.65	\$24.38	\$31.98	\$24.48	\$25.80	\$24.34	\$27.60	\$28.59	\$36.88	\$52.49	\$12.87	\$43.47	\$47.12
2016-04-18	\$29.17	\$24.45	\$32.26	\$24.67	\$26.09	\$24.72	\$27.82	\$27.73	\$37.19	\$52.41	\$12.84	\$43.79	\$47.48
2016-04-19	\$30.32	\$24.50	\$32.84	\$25.10	\$26.76	\$24.90	\$28.27	\$28.83	\$37.95	\$53.84	\$13.34	\$44.24	\$48.20
2016-04-20	\$30.18	\$24.65	\$32.74	\$25.07	\$26.78	\$25.06	\$28.61	\$28.56	\$37.69	\$53.76	\$13.48	\$43.80	\$48.48
2016-04-21	\$30.11	\$24.42	\$32.50	\$24.94	\$26.67	\$25.06	\$28.69	\$28.11	\$37.52	\$52.95	\$13.31	\$43.47	\$48.48
2016-04-22	\$29.84	\$24.55	\$32.54	\$24.89	\$26.53	\$25.02	\$28.78	\$28.04	\$36.99	\$53.03	\$13.18	\$43.28	\$48.84
2016-04-25	\$29.48	\$24.47	\$32.42	\$24.87	\$26.40	\$24.70	\$28.61	\$27.66	\$36.54	\$52.53	\$13.00	\$42.93	\$48.52
2016-04-26	\$30.26	\$24.55	\$32.70	\$24.92	\$26.42	\$25.18	\$29.14	\$28.53	\$36.82	\$53.33	\$13.13	\$43.02	\$48.32
2016-04-27	\$30.60	\$24.59	\$32.78	\$25.10	\$26.57	\$25.26	\$29.33	\$29.24	\$37.36	\$54.06	\$13.00	\$43.19	\$48.28
2016-04-28	\$30.97	\$24.37	\$32.66	\$24.86	\$26.38	\$25.32	\$28.99	\$29.29	\$37.89	\$53.40	\$13.33	\$42.80	\$46.08
2016-04-29	\$31.31	\$24.15	\$32.62	\$24.75	\$26.23	\$25.42	\$28.84	\$29.51	\$38.13	\$54.04	\$13.26	\$42.27	\$45.68
2016-05-02	\$31.16	\$24.35	\$32.80	\$25.01	\$26.53	\$25.28	\$28.91	\$28.96	\$37.82	\$53.98	\$13.28	\$42.10	\$46.52
2016-05-03	\$30.07	\$24.11	\$32.10	\$24.57	\$26.04	\$24.60	\$28.07	\$27.70	\$37.33	\$52.50	\$12.69	\$41.12	\$46.08
2016-05-04	\$29.25	\$23.94	\$31.60	\$24.29	\$25.71	\$24.50	\$27.63	\$28.13	\$37.20	\$51.67	\$12.55	\$40.68	\$45.68
2016-05-05	\$29.05	\$23.83	\$31.58	\$24.13	\$25.55	\$24.28	\$27.44	\$27.64	\$37.36	\$51.22	\$12.34	\$40.81	\$45.92
2016-05-06	\$29.52	\$23.80	\$31.66	\$24.23	\$25.73	\$24.28	\$27.71	\$27.96	\$37.53	\$51.38	\$12.32	\$40.64	\$46.16
2016-05-09	\$28.65	\$24.00	\$31.44	\$24.18	\$25.82	\$23.98	\$27.41	\$27.48	\$36.35	\$50.43	\$12.30	\$39.99	\$46.12
2016-05-10	\$29.54	\$24.11	\$31.72	\$24.47	\$26.09	\$24.32	\$27.75	\$28.98	\$36.61	\$51.53	\$12.45	\$40.68	\$47.28
2016-05-11	\$29.98	\$23.95	\$31.64	\$24.33	\$25.86	\$24.06	\$27.37	\$29.03	\$36.59	\$51.31	\$12.71	\$40.20	\$46.40
2016-05-12	\$29.41	\$23.86	\$31.58	\$24.26	\$25.61	\$24.04	\$27.45	\$29.04	\$36.37	\$51.50	\$12.84	\$40.01	\$46.76

2016-05-13	\$30.29	\$23.67	\$31.28	\$23.92	\$25.45	\$23.72	\$27.13	\$27.80	\$35.88	\$50.61	\$12.68	\$39.39	\$46.12
2016-05-16	\$30.63	\$23.90	\$31.70	\$24.17	\$25.63	\$23.96	\$27.51	\$27.99	\$35.51	\$50.96	\$12.47	\$40.37	\$46.76
2016-05-17	\$30.72	\$23.72	\$31.66	\$23.91	\$25.35	\$23.50	\$27.26	\$27.53	\$35.76	\$50.80	\$12.46	\$40.22	\$46.44
2016-05-18	\$29.98	\$23.72	\$32.00	\$23.87	\$25.34	\$23.56	\$27.37	\$26.76	\$35.28	\$50.01	\$12.31	\$39.87	\$46.48
2016-05-19	\$29.62	\$23.59	\$31.76	\$23.78	\$25.10	\$23.52	\$27.18	\$26.48	\$35.03	\$49.49	\$12.12	\$39.52	\$46.16
2016-05-20	\$29.62	\$23.80	\$31.90	\$24.06	\$25.31	\$23.68	\$27.39	\$26.86	\$35.30	\$49.96	\$12.06	\$40.00	\$46.48
2016-05-23	\$29.69	\$23.77	\$31.80	\$23.94	\$25.18	\$23.56	\$27.24	\$26.05	\$35.23	\$49.51	\$12.11	\$39.95	\$46.28
2016-05-24	\$29.20	\$24.05	\$32.64	\$24.40	\$25.60	\$24.16	\$27.78	\$26.24	\$35.18	\$49.84	\$12.09	\$40.70	\$46.64
2016-05-25	\$29.68	\$24.16	\$33.04	\$24.64	\$25.85	\$24.58	\$28.38	\$26.10	\$35.45	\$50.18	\$12.05	\$41.10	\$46.96
2016-05-26	\$29.67	\$24.15	\$32.94	\$24.85	\$26.08	\$24.62	\$28.26	\$26.34	\$35.73	\$50.52	\$12.00	\$41.12	\$46.92
2016-05-27	\$29.28	\$24.30	\$32.82	\$24.75	\$26.00	\$24.50	\$28.13	\$25.80	\$35.68	\$50.55	\$11.99	\$41.51	\$46.80
2016-05-31	\$29.17	\$24.34	\$32.24	\$24.70	\$25.93	\$24.30	\$27.94	\$25.44	\$35.20	\$49.88	\$11.83	\$42.25	\$47.16
2016-06-01	\$29.27	\$24.35	\$32.06	\$24.69	\$25.96	\$24.16	\$27.76	\$25.87	\$35.13	\$49.80	\$11.68	\$41.78	\$47.12
2016-06-02	\$29.35	\$24.43	\$32.20	\$24.74	\$26.00	\$24.10	\$27.92	\$26.44	\$35.26	\$49.36	\$11.94	\$42.14	\$46.72
2016-06-03	\$30.55	\$24.40	\$32.54	\$24.86	\$26.12	\$24.10	\$27.81	\$27.26	\$36.02	\$49.82	\$12.20	\$42.12	\$46.92
2016-06-06	\$30.80	\$24.49	\$32.52	\$24.95	\$26.16	\$24.26	\$27.86	\$27.33	\$36.64	\$49.81	\$12.30	\$42.69	\$47.40
2016-06-07	\$30.66	\$24.63	\$32.70	\$25.14	\$26.47	\$24.60	\$28.00	\$27.63	\$36.87	\$50.80	\$12.69	\$42.99	\$47.72
2016-06-08	\$30.67	\$24.68	\$32.78	\$25.14	\$26.49	\$24.76	\$28.00	\$29.03	\$37.18	\$51.72	\$12.69	\$42.89	\$48.00
2016-06-09	\$30.75	\$24.61	\$32.44	\$24.72	\$26.01	\$24.36	\$27.59	\$28.47	\$36.70	\$50.69	\$12.99	\$42.63	\$47.44
2016-06-10	\$30.00	\$24.37	\$31.26	\$23.93	\$25.15	\$23.30	\$26.46	\$27.21	\$36.04	\$49.11	\$12.99	\$41.57	\$46.60
2016-06-13	\$29.62	\$24.18	\$30.86	\$23.55	\$24.75	\$22.68	\$25.95	\$26.96	\$35.54	\$48.26	\$12.48	\$40.81	\$45.76
2016-06-14	\$29.32	\$24.00	\$30.14	\$23.01	\$24.46	\$22.28	\$25.46	\$26.42	\$35.49	\$47.64	\$12.45	\$40.94	\$45.56
2016-06-15	\$29.93	\$24.14	\$30.32	\$23.19	\$24.54	\$22.48	\$25.64	\$26.71	\$35.77	\$48.18	\$12.43	\$41.15	\$46.00
2016-06-16	\$29.74	\$24.13	\$30.54	\$23.33	\$24.69	\$22.56	\$25.87	\$27.00	\$35.80	\$48.35	\$12.43	\$41.10	\$45.80
2016-06-17	\$29.95	\$24.07	\$31.20	\$23.64	\$24.93	\$23.32	\$26.39	\$27.44	\$36.10	\$48.69	\$12.41	\$40.78	\$45.72
2016-06-20	\$30.35	\$24.27	\$32.46	\$24.21	\$25.53	\$23.88	\$26.95	\$28.11	\$36.59	\$49.53	\$12.63	\$41.44	\$46.76
2016-06-21	\$30.25	\$24.19	\$32.78	\$24.45	\$25.74	\$24.00	\$27.18	\$28.29	\$36.91	\$49.59	\$12.60	\$41.78	\$47.08
2016-06-22	\$30.09	\$24.23	\$32.22	\$23.82	\$25.22	\$23.18	\$26.58	\$27.93	\$36.24	\$49.57	\$12.76	\$41.67	\$46.28
2016-06-23	\$30.45	\$24.45	\$33.10	\$24.70	\$26.04	\$24.34	\$27.63	\$29.03	\$36.92	\$50.71	\$13.00	\$42.61	\$47.32

2016-06-24	\$29.61	\$23.66	\$29.14	\$21.90	\$23.49	\$20.70	\$23.13	\$27.80	\$35.04	\$47.33	\$12.44	\$40.38	\$45.36
2016-06-27	\$29.15	\$23.03	\$27.98	\$21.39	\$22.92	\$20.12	\$23.12	\$27.34	\$34.39	\$46.31	\$11.92	\$40.00	\$45.12
2016-06-28	\$29.73	\$23.42	\$29.18	\$22.04	\$23.39	\$20.80	\$23.83	\$28.53	\$35.86	\$47.66	\$12.36	\$40.99	\$45.80
2016-06-29	\$30.44	\$23.84	\$29.94	\$22.43	\$23.71	\$21.14	\$24.46	\$29.69	\$36.55	\$49.34	\$12.73	\$41.77	\$46.40
2016-06-30	\$30.89	\$24.22	\$30.74	\$22.87	\$24.05	\$21.70	\$24.98	\$30.18	\$36.80	\$50.37	\$12.69	\$42.39	\$46.00
2016-07-01	\$31.03	\$24.27	\$30.74	\$22.89	\$24.12	\$21.64	\$24.99	\$30.53	\$37.14	\$50.51	\$12.64	\$42.70	\$45.92
2016-07-05	\$31.18	\$24.03	\$30.02	\$22.18	\$23.37	\$20.78	\$24.22	\$29.53	\$36.82	\$48.80	\$12.36	\$41.84	\$45.92
2016-07-06	\$31.60	\$24.04	\$29.76	\$22.10	\$23.30	\$20.60	\$24.20	\$29.35	\$35.99	\$48.50	\$12.30	\$41.78	\$45.92
2016-07-07	\$31.38	\$24.05	\$29.60	\$21.95	\$23.13	\$20.22	\$24.04	\$29.03	\$36.52	\$48.41	\$12.30	\$41.70	\$45.96
2016-07-08	\$32.09	\$24.46	\$29.94	\$22.35	\$23.65	\$21.10	\$24.68	\$30.39	\$37.17	\$49.69	\$12.34	\$42.34	\$46.28
2016-07-11	\$32.59	\$24.53	\$30.36	\$22.69	\$24.03	\$21.28	\$24.91	\$30.68	\$37.07	\$50.06	\$12.52	\$42.93	\$47.40
2016-07-12	\$32.51	\$24.73	\$30.94	\$23.11	\$24.41	\$22.02	\$25.60	\$30.96	\$37.56	\$50.87	\$12.68	\$43.56	\$47.68
2016-07-13	\$32.03	\$24.77	\$30.88	\$23.23	\$24.45	\$21.90	\$25.61	\$31.38	\$37.65	\$50.52	\$12.66	\$43.31	\$47.60
2016-07-14	\$33.22	\$24.91	\$31.14	\$23.47	\$24.83	\$22.16	\$25.83	\$32.00	\$38.18	\$50.83	\$12.91	\$43.93	\$47.68
2016-07-15	\$32.90	\$24.85	\$30.94	\$23.28	\$24.73	\$22.12	\$25.70	\$32.03	\$38.12	\$50.65	\$12.95	\$43.83	\$47.52
2016-07-18	\$33.15	\$24.92	\$31.12	\$23.25	\$24.74	\$22.06	\$25.66	\$32.60	\$38.66	\$51.32	\$12.92	\$44.23	\$47.64
2016-07-19	\$32.98	\$24.83	\$30.78	\$23.04	\$24.46	\$21.88	\$25.50	\$32.72	\$38.61	\$50.91	\$13.04	\$43.55	\$47.32
2016-07-20	\$32.46	\$24.95	\$31.04	\$23.23	\$24.77	\$21.96	\$25.70	\$32.75	\$38.73	\$51.17	\$13.11	\$44.10	\$47.72
2016-07-21	\$32.73	\$24.86	\$30.96	\$23.19	\$24.79	\$21.92	\$25.74	\$32.40	\$38.68	\$51.06	\$12.80	\$44.02	\$47.36
2016-07-22	\$32.81	\$25.12	\$30.90	\$23.22	\$24.78	\$21.90	\$25.77	\$32.86	\$38.90	\$51.36	\$12.90	\$44.29	\$47.44
2016-07-25	\$32.40	\$25.08	\$30.94	\$23.23	\$24.89	\$21.74	\$25.65	\$32.42	\$38.58	\$50.19	\$12.73	\$43.96	\$47.28
2016-07-26	\$32.94	\$25.14	\$30.98	\$23.37	\$25.07	\$21.84	\$25.66	\$32.57	\$38.44	\$50.03	\$12.29	\$44.47	\$47.32
2016-07-27	\$33.87	\$25.03	\$31.18	\$23.67	\$25.30	\$22.06	\$26.09	\$32.59	\$38.26	\$49.76	\$12.17	\$44.36	\$47.40
2016-07-28	\$34.29	\$25.07	\$31.08	\$23.79	\$25.42	\$21.94	\$25.81	\$32.22	\$38.20	\$49.52	\$12.15	\$44.22	\$47.40
2016-07-29	\$34.33	\$25.07	\$31.20	\$23.95	\$25.65	\$22.38	\$26.26	\$33.24	\$38.45	\$49.68	\$12.18	\$44.02	\$48.24
2016-08-01	\$34.35	\$24.95	\$30.86	\$23.70	\$25.55	\$21.88	\$25.83	\$32.55	\$37.99	\$49.54	\$12.05	\$44.04	\$48.40
2016-08-02	\$34.47	\$24.66	\$31.12	\$23.51	\$25.31	\$21.52	\$25.39	\$32.24	\$37.95	\$49.16	\$12.01	\$43.83	\$47.80
2016-08-03	\$34.69	\$24.86	\$31.02	\$23.36	\$25.29	\$21.50	\$25.25	\$33.04	\$38.09	\$49.64	\$12.01	\$43.91	\$47.56
2016-08-04	\$34.89	\$24.87	\$31.14	\$23.43	\$25.30	\$21.54	\$25.44	\$33.76	\$38.22	\$49.61	\$12.14	\$44.05	\$48.24

2016-08-05	\$34.51	\$25.08	\$31.16	\$23.58	\$25.51	\$21.88	\$25.74	\$34.13	\$38.08	\$50.36	\$12.26	\$44.75	\$48.40
2016-08-08	\$34.85	\$25.09	\$31.20	\$23.61	\$25.64	\$22.02	\$25.83	\$34.11	\$38.36	\$51.02	\$12.46	\$45.02	\$48.60
2016-08-09	\$34.71	\$25.06	\$31.24	\$23.84	\$26.27	\$22.18	\$26.08	\$34.46	\$38.67	\$51.74	\$12.60	\$45.30	\$49.04
2016-08-10	\$35.11	\$25.03	\$31.28	\$23.98	\$26.38	\$22.36	\$26.36	\$34.12	\$38.67	\$51.99	\$12.60	\$45.23	\$49.20
2016-08-11	\$35.37	\$25.15	\$31.56	\$24.18	\$26.53	\$22.48	\$26.45	\$34.88	\$39.37	\$52.98	\$13.11	\$46.18	\$49.56
2016-08-12	\$35.23	\$25.20	\$31.50	\$24.21	\$26.50	\$22.56	\$26.50	\$34.46	\$39.02	\$52.96	\$12.85	\$46.56	\$49.32
2016-08-15	\$35.32	\$25.27	\$31.54	\$24.25	\$26.63	\$22.66	\$26.57	\$34.84	\$39.13	\$53.80	\$12.86	\$47.38	\$49.60
2016-08-16	\$35.41	\$25.14	\$31.70	\$24.25	\$26.66	\$22.50	\$26.46	\$34.59	\$38.87	\$53.62	\$13.16	\$47.25	\$49.16
2016-08-17	\$35.23	\$25.10	\$31.70	\$24.17	\$26.54	\$22.40	\$26.32	\$34.52	\$38.16	\$53.05	\$13.22	\$47.17	\$49.56
2016-08-18	\$35.69	\$25.16	\$32.00	\$24.31	\$26.74	\$22.58	\$26.37	\$34.32	\$38.30	\$53.35	\$13.31	\$47.46	\$49.32
2016-08-19	\$35.55	\$25.23	\$31.74	\$24.12	\$26.56	\$22.12	\$26.07	\$34.49	\$38.08	\$52.91	\$13.40	\$47.37	\$49.20
2016-08-22	\$34.97	\$25.18	\$31.76	\$24.07	\$26.43	\$22.18	\$26.17	\$33.65	\$37.52	\$52.62	\$13.20	\$46.94	\$49.48
2016-08-23	\$34.74	\$25.31	\$31.98	\$24.08	\$26.57	\$22.54	\$26.32	\$33.46	\$37.35	\$51.36	\$13.09	\$46.85	\$49.52
2016-08-24	\$33.71	\$25.18	\$31.88	\$24.04	\$26.48	\$22.56	\$26.38	\$33.57	\$37.77	\$51.70	\$13.17	\$46.64	\$49.48
2016-08-25	\$33.64	\$25.17	\$31.78	\$23.92	\$26.33	\$22.46	\$26.32	\$33.35	\$38.01	\$51.95	\$13.44	\$46.63	\$49.24
2016-08-26	\$33.51	\$25.06	\$31.58	\$23.87	\$26.15	\$22.38	\$26.21	\$32.98	\$37.49	\$51.07	\$13.49	\$46.58	\$48.88
2016-08-29	\$33.72	\$25.22	\$31.70	\$23.93	\$26.27	\$22.36	\$26.27	\$33.96	\$37.47	\$51.26	\$13.41	\$46.84	\$49.04
2016-08-30	\$32.98	\$25.18	\$31.60	\$23.92	\$26.33	\$22.44	\$26.33	\$33.78	\$37.18	\$50.74	\$13.38	\$47.23	\$49.04
2016-08-31	\$31.98	\$25.18	\$31.54	\$23.87	\$26.21	\$22.58	\$26.50	\$33.52	\$36.52	\$50.47	\$13.17	\$46.76	\$49.12
2016-09-01	\$32.83	\$25.05	\$31.74	\$24.10	\$26.30	\$22.74	\$26.83	\$33.63	\$36.60	\$50.72	\$13.02	\$47.10	\$49.48
2016-09-02	\$33.67	\$25.25	\$32.40	\$24.47	\$26.54	\$22.94	\$27.14	\$34.40	\$37.47	\$51.48	\$13.34	\$47.92	\$49.84
2016-09-06	\$34.39	\$25.25	\$32.46	\$24.60	\$26.69	\$23.00	\$27.29	\$34.98	\$37.78	\$52.01	\$13.85	\$49.13	\$50.12
2016-09-07	\$34.32	\$25.37	\$32.26	\$24.65	\$26.79	\$23.16	\$27.48	\$34.96	\$37.45	\$51.53	\$13.90	\$48.91	\$50.36
2016-09-08	\$34.32	\$25.30	\$32.22	\$24.64	\$26.65	\$23.42	\$27.89	\$35.10	\$37.14	\$50.73	\$14.01	\$49.26	\$50.12
2016-09-09	\$33.38	\$24.72	\$31.62	\$24.15	\$26.07	\$22.82	\$27.41	\$33.08	\$36.61	\$49.19	\$13.50	\$48.03	\$49.32
2016-09-12	\$33.44	\$25.00	\$31.82	\$24.34	\$26.25	\$22.90	\$27.48	\$33.74	\$36.71	\$49.46	\$13.24	\$48.36	\$49.72
2016-09-13	\$32.74	\$24.73	\$31.10	\$23.85	\$25.90	\$22.24	\$26.75	\$32.09	\$36.09	\$48.31	\$12.86	\$47.43	\$48.84
2016-09-14	\$32.92	\$24.67	\$31.14	\$23.72	\$25.89	\$22.18	\$26.65	\$31.97	\$36.11	\$47.68	\$12.98	\$47.55	\$48.52
2016-09-15	\$33.08	\$24.92	\$31.48	\$23.81	\$26.10	\$22.32	\$26.80	\$32.92	\$36.45	\$47.43	\$13.29	\$48.32	\$48.76

2016-09-16	\$32.64	\$24.87	\$31.00	\$23.44	\$25.52	\$21.60	\$26.28	\$32.67	\$36.07	\$46.77	\$12.96	\$48.21	\$48.36
2016-09-19	\$32.81	\$25.04	\$31.24	\$23.65	\$25.68	\$21.84	\$26.39	\$32.78	\$36.17	\$46.72	\$13.14	\$48.07	\$48.52
2016-09-20	\$32.97	\$25.01	\$31.26	\$23.70	\$25.79	\$21.64	\$26.36	\$33.09	\$36.44	\$46.65	\$13.02	\$48.09	\$49.20
2016-09-21	\$33.93	\$25.30	\$31.60	\$24.02	\$26.14	\$22.10	\$26.92	\$34.03	\$37.26	\$47.61	\$13.18	\$49.40	\$50.64
2016-09-22	\$34.13	\$25.49	\$31.88	\$24.38	\$26.54	\$22.32	\$27.20	\$34.28	\$37.77	\$48.70	\$13.24	\$49.89	\$51.28
2016-09-23	\$33.79	\$25.35	\$31.60	\$24.22	\$26.44	\$22.04	\$26.87	\$33.87	\$37.29	\$47.90	\$13.12	\$49.08	\$50.56
2016-09-26	\$33.30	\$25.04	\$31.28	\$23.94	\$26.01	\$21.78	\$26.59	\$33.41	\$37.04	\$47.16	\$12.95	\$48.09	\$50.12
2016-09-27	\$33.06	\$25.12	\$31.36	\$23.93	\$25.95	\$21.68	\$26.57	\$33.93	\$37.07	\$48.95	\$12.83	\$48.72	\$50.68
2016-09-28	\$33.48	\$25.20	\$31.72	\$24.23	\$26.21	\$21.96	\$26.83	\$34.53	\$37.35	\$49.47	\$13.13	\$49.05	\$50.60
2016-09-29	\$33.30	\$25.05	\$31.48	\$23.80	\$25.69	\$21.62	\$26.37	\$33.58	\$36.97	\$48.65	\$13.19	\$48.41	\$50.24
2016-09-30	\$33.20	\$25.23	\$31.68	\$24.16	\$26.27	\$22.04	\$26.82	\$33.73	\$36.89	\$48.48	\$13.27	\$48.50	\$50.16
2016-10-03	\$33.18	\$25.05	\$31.66	\$24.09	\$26.16	\$21.88	\$26.70	\$34.66	\$37.04	\$49.16	\$12.83	\$48.61	\$50.00
2016-10-04	\$32.34	\$24.90	\$31.76	\$24.14	\$26.28	\$21.70	\$26.59	\$34.04	\$36.94	\$49.40	\$12.67	\$48.44	\$49.72
2016-10-05	\$32.16	\$25.06	\$31.78	\$24.27	\$26.39	\$22.08	\$26.88	\$34.92	\$37.05	\$49.93	\$12.89	\$49.46	\$50.04
2016-10-06	\$31.66	\$25.08	\$31.46	\$24.16	\$26.27	\$22.04	\$26.74	\$35.14	\$37.06	\$49.54	\$13.07	\$49.44	\$49.80
2016-10-07	\$32.05	\$24.96	\$31.10	\$24.02	\$26.08	\$21.98	\$26.38	\$35.46	\$36.96	\$49.19	\$13.05	\$48.98	\$49.80
2016-10-10	\$32.03	\$25.15	\$31.06	\$24.14	\$26.25	\$22.14	\$26.41	\$35.87	\$37.12	\$50.92	\$13.01	\$49.76	\$49.96
2016-10-11	\$31.80	\$24.83	\$30.40	\$23.81	\$25.97	\$21.78	\$26.20	\$35.58	\$37.31	\$50.63	\$13.13	\$48.36	\$49.52
2016-10-12	\$31.98	\$24.87	\$30.40	\$23.73	\$25.78	\$21.72	\$26.18	\$35.45	\$37.32	\$50.48	\$13.24	\$48.38	\$49.44
2016-10-13	\$31.82	\$24.73	\$30.30	\$23.65	\$25.64	\$21.56	\$26.03	\$35.83	\$37.20	\$50.13	\$13.12	\$47.63	\$49.36
2016-10-14	\$31.84	\$24.80	\$30.20	\$23.73	\$25.77	\$21.74	\$26.18	\$36.05	\$37.39	\$49.98	\$13.10	\$47.84	\$49.36
2016-10-17	\$31.92	\$24.69	\$29.98	\$23.72	\$25.67	\$21.88	\$26.23	\$36.47	\$37.50	\$50.21	\$13.05	\$47.57	\$49.40
2016-10-18	\$32.54	\$24.88	\$30.40	\$23.96	\$25.89	\$22.28	\$26.62	\$37.36	\$38.11	\$51.54	\$13.23	\$48.26	\$49.68
2016-10-19	\$33.12	\$24.92	\$30.50	\$23.98	\$25.94	\$22.38	\$26.80	\$37.27	\$38.88	\$52.36	\$13.28	\$48.41	\$49.84
2016-10-20	\$33.06	\$24.82	\$30.46	\$24.01	\$25.94	\$22.44	\$27.05	\$37.78	\$38.76	\$51.76	\$13.26	\$48.25	\$50.28
2016-10-21	\$33.05	\$24.79	\$30.42	\$23.93	\$25.84	\$22.42	\$27.06	\$37.77	\$38.87	\$51.95	\$13.21	\$48.37	\$50.28
2016-10-24	\$32.87	\$24.89	\$30.26	\$24.01	\$25.92	\$22.56	\$27.39	\$38.08	\$39.33	\$52.13	\$13.17	\$48.59	\$50.36
2016-10-25	\$33.08	\$24.76	\$30.22	\$23.92	\$25.93	\$22.50	\$27.20	\$38.19	\$40.05	\$51.86	\$13.19	\$48.40	\$50.40
2016-10-26	\$32.89	\$24.74	\$30.06	\$23.83	\$25.80	\$22.54	\$27.18	\$37.84	\$39.75	\$51.08	\$12.98	\$47.94	\$50.32

2016-10-27	\$32.67	\$24.64	\$30.04	\$23.90	\$25.80	\$22.68	\$27.38	\$37.77	\$39.91	\$51.03	\$12.99	\$47.52	\$50.40
2016-10-28	\$32.48	\$24.60	\$30.02	\$24.06	\$25.86	\$22.64	\$27.44	\$37.39	\$39.92	\$50.64	\$12.92	\$47.10	\$50.48
2016-10-31	\$32.83	\$24.76	\$30.00	\$24.05	\$25.91	\$22.56	\$27.45	\$37.76	\$39.97	\$50.83	\$12.75	\$47.07	\$50.52
2016-11-01	\$32.83	\$24.41	\$29.90	\$23.95	\$25.71	\$22.34	\$27.30	\$36.47	\$39.81	\$49.39	\$12.64	\$47.07	\$50.32
2016-11-02	\$32.33	\$24.36	\$29.74	\$23.79	\$25.51	\$21.98	\$26.99	\$35.83	\$39.70	\$48.65	\$12.62	\$46.30	\$50.00
2016-11-03	\$32.39	\$24.32	\$29.76	\$23.80	\$25.37	\$21.90	\$27.00	\$35.51	\$39.47	\$48.85	\$12.50	\$46.24	\$50.12
2016-11-04	\$32.63	\$24.31	\$29.46	\$23.53	\$25.19	\$21.64	\$26.69	\$35.36	\$38.76	\$49.35	\$12.48	\$45.85	\$49.52
2016-11-07	\$33.20	\$24.75	\$29.90	\$23.89	\$25.56	\$22.25	\$27.08	\$37.27	\$39.74	\$51.88	\$12.66	\$47.30	\$49.87
2016-11-08	\$33.49	\$24.93	\$30.01	\$23.99	\$25.64	\$22.32	\$27.14	\$37.54	\$40.28	\$52.79	\$12.73	\$47.58	\$49.81
2016-11-09	\$33.64	\$25.18	\$30.39	\$24.07	\$25.65	\$22.14	\$26.80	\$36.31	\$40.11	\$48.29	\$12.90	\$46.41	\$49.39
2016-11-10	\$33.80	\$25.38	\$30.39	\$23.90	\$25.57	\$22.17	\$26.37	\$33.45	\$38.30	\$44.20	\$12.06	\$45.75	\$49.43
2016-11-11	\$32.97	\$25.56	\$30.10	\$23.62	\$25.49	\$22.09	\$25.85	\$32.50	\$37.46	\$43.34	\$11.66	\$45.28	\$49.50
2016-11-14	\$32.41	\$25.71	\$29.96	\$23.47	\$25.24	\$21.69	\$25.50	\$32.38	\$36.79	\$44.12	\$11.71	\$44.61	\$49.56
2016-11-15	\$32.82	\$25.89	\$30.12	\$23.62	\$25.36	\$21.76	\$25.75	\$33.47	\$37.46	\$44.74	\$12.23	\$45.50	\$49.64
2016-11-16	\$32.64	\$25.88	\$29.81	\$23.32	\$25.06	\$21.42	\$25.38	\$33.07	\$37.43	\$44.56	\$11.98	\$45.04	\$49.40
2016-11-17	\$32.12	\$26.07	\$30.00	\$23.38	\$25.09	\$21.40	\$25.49	\$32.38	\$37.31	\$44.21	\$11.94	\$45.37	\$50.14
2016-11-18	\$32.18	\$26.02	\$29.68	\$23.15	\$24.86	\$20.87	\$25.07	\$32.59	\$37.10	\$42.97	\$11.84	\$45.33	\$49.39
2016-11-21	\$32.33	\$26.16	\$30.08	\$23.42	\$25.02	\$21.09	\$25.23	\$33.75	\$37.96	\$43.61	\$12.02	\$45.64	\$49.79
2016-11-22	\$32.57	\$26.31	\$30.17	\$23.48	\$25.09	\$21.35	\$25.35	\$34.17	\$37.66	\$43.49	\$11.82	\$46.11	\$49.91
2016-11-23	\$32.02	\$26.37	\$30.16	\$23.21	\$24.81	\$21.27	\$25.07	\$33.81	\$37.45	\$43.67	\$11.76	\$45.86	\$49.91
2016-11-25	\$32.19	\$26.50	\$30.29	\$23.37	\$24.97	\$21.29	\$25.18	\$33.06	\$37.49	\$44.08	\$11.76	\$46.23	\$49.49
2016-11-28	\$32.26	\$26.35	\$29.91	\$23.14	\$24.71	\$20.85	\$24.95	\$33.91	\$37.45	\$44.00	\$11.86	\$46.39	\$49.92
2016-11-29	\$32.20	\$26.39	\$30.05	\$23.50	\$24.92	\$21.38	\$25.18	\$33.20	\$37.46	\$44.05	\$11.67	\$46.67	\$49.97
2016-11-30	\$32.16	\$26.27	\$30.06	\$23.45	\$24.83	\$21.75	\$25.17	\$33.49	\$37.47	\$44.12	\$11.89	\$46.62	\$49.89
2016-12-01	\$32.15	\$26.19	\$30.10	\$23.46	\$24.68	\$21.98	\$25.25	\$31.48	\$37.31	\$43.27	\$12.14	\$46.22	\$49.47
2016-12-02	\$32.54	\$26.22	\$30.35	\$23.39	\$24.74	\$22.13	\$25.18	\$31.68	\$37.70	\$43.22	\$12.18	\$45.89	\$49.62
2016-12-05	\$32.72	\$26.40	\$30.57	\$23.88	\$25.34	\$22.31	\$25.63	\$32.12	\$38.29	\$43.70	\$12.45	\$45.95	\$49.56
2016-12-06	\$33.00	\$26.46	\$30.67	\$24.19	\$25.56	\$23.25	\$26.40	\$32.68	\$38.47	\$44.34	\$12.57	\$45.92	\$49.78
2016-12-07	\$33.23	\$26.96	\$31.09	\$24.63	\$26.16	\$23.79	\$26.76	\$33.28	\$39.20	\$45.00	\$12.65	\$46.52	\$50.52

2016-12-08	\$33.18	\$27.04	\$31.03	\$24.37	\$26.07	\$23.72	\$26.83	\$33.01	\$39.49	\$45.55	\$12.53	\$46.51	\$51.10
2016-12-09	\$32.97	\$27.09	\$31.18	\$24.44	\$26.09	\$23.49	\$26.84	\$32.82	\$39.68	\$45.84	\$12.66	\$46.21	\$51.25
2016-12-12	\$32.97	\$27.02	\$31.05	\$24.46	\$26.11	\$23.59	\$26.91	\$32.43	\$39.39	\$46.21	\$12.72	\$45.27	\$50.75
2016-12-13	\$33.11	\$27.16	\$31.34	\$24.66	\$26.34	\$24.14	\$27.32	\$32.72	\$39.76	\$46.26	\$12.97	\$45.80	\$51.35
2016-12-14	\$32.70	\$26.86	\$30.98	\$24.28	\$26.02	\$23.65	\$26.76	\$31.50	\$38.38	\$45.14	\$12.92	\$44.92	\$50.56
2016-12-15	\$32.47	\$26.98	\$30.93	\$24.26	\$26.02	\$23.87	\$26.89	\$31.87	\$38.19	\$45.09	\$12.80	\$44.41	\$50.56
2016-12-16	\$32.46	\$26.93	\$31.04	\$24.36	\$26.13	\$23.90	\$27.06	\$31.53	\$37.71	\$44.37	\$12.81	\$44.01	\$50.12
2016-12-19	\$31.97	\$27.02	\$30.85	\$24.24	\$26.06	\$23.79	\$26.87	\$31.11	\$37.34	\$44.26	\$12.81	\$43.89	\$50.55
2016-12-20	\$32.16	\$27.15	\$30.90	\$24.33	\$26.15	\$24.05	\$27.07	\$31.53	\$37.33	\$44.06	\$12.91	\$43.91	\$50.60
2016-12-21	\$32.28	\$27.08	\$30.47	\$24.34	\$26.29	\$23.96	\$26.43	\$31.30	\$37.09	\$43.52	\$12.83	\$43.36	\$49.75
2016-12-22	\$32.16	\$26.91	\$30.36	\$24.37	\$26.27	\$23.84	\$26.28	\$31.44	\$36.68	\$43.26	\$12.88	\$42.89	\$49.67
2016-12-23	\$32.14	\$26.97	\$30.41	\$24.43	\$26.31	\$24.15	\$26.42	\$32.27	\$36.20	\$43.70	\$12.74	\$42.80	\$49.76
2016-12-27	\$32.33	\$27.11	\$30.44	\$24.46	\$26.36	\$24.24	\$26.42	\$32.53	\$36.28	\$43.44	\$12.85	\$42.97	\$49.45
2016-12-28	\$32.45	\$26.77	\$30.32	\$24.29	\$26.18	\$23.88	\$26.09	\$33.04	\$36.82	\$43.72	\$12.71	\$43.29	\$49.38
2016-12-29	\$32.82	\$26.85	\$30.49	\$24.49	\$26.34	\$24.10	\$26.30	\$33.66	\$37.65	\$44.21	\$12.92	\$43.84	\$48.88
2016-12-30	\$32.80	\$26.72	\$30.69	\$24.67	\$26.48	\$24.21	\$26.51	\$33.34	\$37.42	\$43.97	\$12.94	\$43.73	\$48.86
2017-01-03	\$33.11	\$26.85	\$30.81	\$24.66	\$26.50	\$24.49	\$26.85	\$34.46	\$37.24	\$43.63	\$13.02	\$44.19	\$49.26
2017-01-04	\$33.60	\$27.14	\$31.11	\$24.83	\$26.66	\$24.66	\$26.93	\$34.81	\$37.29	\$43.10	\$13.20	\$44.77	\$50.25
2017-01-05	\$34.02	\$27.09	\$31.32	\$25.06	\$26.95	\$24.90	\$27.28	\$35.22	\$37.82	\$43.43	\$13.42	\$45.61	\$50.54
2017-01-06	\$33.84	\$27.08	\$31.12	\$24.96	\$26.86	\$24.85	\$27.23	\$34.86	\$37.54	\$43.12	\$13.49	\$45.34	\$50.46
2017-01-09	\$33.92	\$26.92	\$30.87	\$24.93	\$26.83	\$24.44	\$27.18	\$34.85	\$37.22	\$42.34	\$13.44	\$45.51	\$50.51
2017-01-10	\$34.19	\$26.99	\$30.97	\$24.91	\$26.82	\$24.45	\$27.06	\$35.25	\$37.41	\$41.96	\$13.32	\$46.20	\$50.32
2017-01-11	\$33.92	\$27.01	\$31.20	\$25.03	\$27.08	\$24.59	\$27.00	\$36.03	\$37.84	\$41.83	\$13.28	\$46.37	\$50.65
2017-01-12	\$33.87	\$26.97	\$31.26	\$25.12	\$26.99	\$24.44	\$27.19	\$36.42	\$38.41	\$42.03	\$13.51	\$46.17	\$50.57
2017-01-13	\$34.10	\$27.03	\$31.33	\$25.24	\$27.12	\$24.55	\$27.35	\$35.94	\$38.73	\$42.65	\$13.36	\$46.31	\$50.89
2017-01-17	\$34.01	\$26.96	\$31.37	\$25.22	\$27.18	\$24.54	\$27.27	\$36.19	\$38.71	\$42.45	\$13.41	\$46.22	\$50.32
2017-01-18	\$34.08	\$27.02	\$31.23	\$25.04	\$27.18	\$24.48	\$27.09	\$35.66	\$38.89	\$41.97	\$13.31	\$46.41	\$50.31
2017-01-19	\$33.88	\$26.90	\$31.14	\$25.00	\$27.12	\$24.55	\$27.07	\$36.13	\$38.77	\$41.74	\$13.33	\$46.19	\$50.17
2017-01-20	\$34.02	\$26.95	\$31.17	\$25.18	\$27.31	\$24.69	\$27.16	\$36.68	\$38.99	\$42.64	\$13.51	\$46.13	\$50.49

2017-01-23	\$34.63	\$26.96	\$31.45	\$25.22	\$27.35	\$24.66	\$27.13	\$37.67	\$39.40	\$43.83	\$13.33	\$46.50	\$50.52
2017-01-24	\$35.26	\$27.23	\$31.45	\$25.24	\$27.46	\$24.88	\$27.35	\$37.39	\$39.51	\$44.46	\$13.32	\$46.97	\$50.65
2017-01-25	\$35.35	\$27.50	\$31.77	\$25.45	\$27.91	\$24.85	\$27.88	\$37.96	\$40.08	\$45.46	\$13.50	\$47.28	\$51.18
2017-01-26	\$34.74	\$27.36	\$31.63	\$25.18	\$27.78	\$24.44	\$27.58	\$37.58	\$39.83	\$44.41	\$13.38	\$47.28	\$51.25
2017-01-27	\$34.95	\$27.29	\$31.58	\$25.14	\$27.78	\$24.37	\$27.62	\$37.77	\$39.44	\$45.10	\$13.52	\$47.14	\$50.83
2017-01-30	\$34.64	\$27.17	\$31.26	\$24.92	\$27.56	\$23.75	\$27.33	\$37.06	\$38.98	\$45.08	\$13.36	\$46.95	\$50.69
2017-01-31	\$35.04	\$27.28	\$31.45	\$25.01	\$27.51	\$23.74	\$27.48	\$36.87	\$38.88	\$44.81	\$13.40	\$47.01	\$50.57
2017-02-01	\$35.20	\$27.26	\$31.60	\$25.06	\$27.60	\$23.73	\$27.35	\$37.16	\$38.95	\$44.91	\$13.41	\$47.02	\$50.84
2017-02-02	\$35.60	\$27.28	\$31.47	\$25.10	\$27.59	\$23.99	\$27.59	\$37.31	\$39.59	\$45.63	\$13.59	\$47.10	\$50.82
2017-02-03	\$35.46	\$27.48	\$31.50	\$25.22	\$27.65	\$24.30	\$27.77	\$37.60	\$40.22	\$46.02	\$13.76	\$47.11	\$51.05
2017-02-06	\$35.49	\$27.47	\$31.37	\$24.90	\$27.22	\$23.65	\$27.23	\$37.03	\$39.94	\$45.38	\$13.77	\$47.29	\$50.97
2017-02-07	\$35.62	\$27.48	\$31.50	\$24.69	\$27.18	\$23.50	\$27.11	\$37.03	\$39.62	\$45.05	\$13.72	\$47.27	\$50.94
2017-02-08	\$35.81	\$27.45	\$31.59	\$24.74	\$27.18	\$23.64	\$27.03	\$37.58	\$39.69	\$45.47	\$13.45	\$47.96	\$51.09
2017-02-09	\$35.80	\$27.61	\$31.74	\$24.93	\$27.29	\$23.80	\$27.31	\$37.44	\$40.15	\$45.90	\$13.57	\$48.37	\$51.02
2017-02-10	\$36.39	\$27.70	\$31.83	\$24.93	\$27.31	\$23.67	\$27.08	\$38.27	\$41.05	\$46.62	\$13.52	\$48.53	\$51.38
2017-02-13	\$36.33	\$27.79	\$32.00	\$25.06	\$27.43	\$23.82	\$27.20	\$38.50	\$41.21	\$46.49	\$13.70	\$48.77	\$51.58
2017-02-14	\$36.13	\$27.87	\$31.92	\$25.11	\$27.44	\$23.94	\$27.30	\$38.98	\$41.27	\$46.36	\$13.41	\$48.66	\$51.21
2017-02-15	\$36.14	\$28.04	\$32.00	\$25.27	\$27.49	\$23.83	\$27.52	\$40.04	\$41.39	\$46.19	\$13.51	\$49.23	\$51.16
2017-02-16	\$35.99	\$28.07	\$32.04	\$25.32	\$27.64	\$23.96	\$27.65	\$39.38	\$41.21	\$45.97	\$13.54	\$49.24	\$51.22
2017-02-17	\$35.65	\$28.05	\$31.95	\$25.02	\$27.54	\$23.77	\$27.39	\$39.24	\$40.74	\$45.72	\$13.49	\$49.01	\$51.19
2017-02-21	\$35.79	\$28.33	\$32.03	\$24.98	\$27.78	\$23.73	\$27.32	\$40.05	\$41.13	\$47.11	\$13.40	\$49.41	\$51.62
2017-02-22	\$35.76	\$28.28	\$32.05	\$25.04	\$27.86	\$23.48	\$27.10	\$40.15	\$41.25	\$46.99	\$13.47	\$49.83	\$51.68
2017-02-23	\$35.44	\$28.21	\$32.25	\$25.08	\$27.80	\$23.45	\$27.18	\$39.55	\$41.16	\$47.31	\$13.67	\$49.68	\$51.63
2017-02-24	\$34.93	\$28.25	\$31.98	\$24.86	\$27.48	\$23.20	\$27.02	\$38.36	\$40.59	\$46.68	\$13.45	\$49.08	\$51.52
2017-02-27	\$34.41	\$28.32	\$31.98	\$24.90	\$27.57	\$23.67	\$27.18	\$38.53	\$40.48	\$46.87	\$13.42	\$48.95	\$51.36
2017-02-28	\$34.24	\$28.22	\$31.91	\$24.91	\$27.52	\$23.65	\$27.30	\$37.73	\$40.29	\$46.08	\$13.20	\$48.71	\$51.23
2017-03-01	\$34.46	\$28.52	\$32.06	\$25.24	\$27.91	\$24.03	\$27.85	\$38.98	\$40.82	\$47.28	\$13.09	\$49.27	\$51.83
2017-03-02	\$33.69	\$28.35	\$31.99	\$25.18	\$27.76	\$24.00	\$27.58	\$37.42	\$40.41	\$46.67	\$12.97	\$48.43	\$51.34
2017-03-03	\$33.89	\$28.40	\$32.03	\$25.62	\$27.99	\$24.53	\$28.12	\$38.58	\$40.75	\$47.96	\$13.00	\$48.65	\$51.37

2017-03-06	\$33.23	\$28.26	\$31.82	\$25.49	\$27.83	\$24.32	\$28.14	\$38.08	\$40.96	\$48.33	\$13.02	\$48.60	\$51.25
2017-03-07	\$33.16	\$28.13	\$31.60	\$25.28	\$27.72	\$24.21	\$28.09	\$37.94	\$41.16	\$48.21	\$13.15	\$48.76	\$51.13
2017-03-08	\$32.74	\$28.06	\$31.45	\$25.21	\$27.61	\$24.04	\$28.04	\$36.81	\$40.61	\$47.66	\$12.80	\$48.81	\$50.97
2017-03-09	\$32.48	\$27.99	\$31.50	\$25.48	\$27.79	\$24.46	\$28.70	\$36.32	\$40.46	\$47.03	\$12.82	\$48.34	\$50.97
2017-03-10	\$32.70	\$28.11	\$31.66	\$25.80	\$28.05	\$24.68	\$29.05	\$37.12	\$40.55	\$47.55	\$12.98	\$48.60	\$51.34
2017-03-13	\$32.79	\$28.19	\$31.99	\$25.80	\$28.06	\$24.78	\$28.97	\$37.35	\$41.25	\$47.46	\$12.95	\$49.39	\$51.60
2017-03-14	\$32.42	\$28.07	\$31.71	\$25.55	\$27.91	\$24.43	\$28.56	\$36.65	\$40.85	\$47.23	\$12.78	\$49.11	\$51.24
2017-03-15	\$33.15	\$28.45	\$32.21	\$25.86	\$28.27	\$24.94	\$29.02	\$38.15	\$41.54	\$48.76	\$12.90	\$49.84	\$51.76
2017-03-16	\$33.78	\$28.29	\$32.52	\$26.13	\$28.49	\$25.52	\$29.82	\$37.85	\$42.16	\$49.33	\$13.17	\$50.42	\$51.66
2017-03-17	\$33.63	\$28.34	\$32.66	\$26.11	\$28.41	\$25.40	\$29.88	\$37.23	\$42.31	\$50.07	\$13.22	\$50.30	\$51.83
2017-03-20	\$33.86	\$28.29	\$32.56	\$26.08	\$28.36	\$25.22	\$29.81	\$38.01	\$42.64	\$50.40	\$13.37	\$51.00	\$51.84
2017-03-21	\$33.59	\$27.90	\$32.52	\$26.10	\$28.22	\$25.23	\$29.88	\$36.71	\$42.65	\$50.14	\$13.23	\$50.25	\$51.44
2017-03-22	\$33.74	\$28.01	\$32.50	\$26.16	\$28.23	\$25.40	\$30.12	\$36.98	\$42.64	\$50.21	\$13.34	\$50.43	\$51.51
2017-03-23	\$33.82	\$27.96	\$32.55	\$26.24	\$28.37	\$25.52	\$30.22	\$36.57	\$42.84	\$50.75	\$13.43	\$50.54	\$51.55
2017-03-24	\$33.84	\$27.78	\$32.47	\$26.29	\$28.55	\$25.61	\$30.31	\$37.12	\$43.38	\$51.56	\$13.57	\$50.58	\$51.87
2017-03-27	\$33.71	\$27.75	\$32.53	\$26.48	\$28.62	\$25.75	\$30.59	\$37.01	\$43.16	\$51.50	\$13.45	\$50.39	\$51.90
2017-03-28	\$34.04	\$27.93	\$32.50	\$26.54	\$28.81	\$25.91	\$30.72	\$37.16	\$43.97	\$51.26	\$13.63	\$50.57	\$52.34
2017-03-29	\$34.13	\$27.88	\$32.54	\$26.48	\$28.78	\$25.76	\$30.54	\$37.96	\$44.01	\$51.80	\$13.70	\$50.56	\$52.27
2017-03-30	\$34.02	\$27.99	\$32.54	\$26.35	\$28.63	\$25.64	\$30.35	\$37.42	\$43.80	\$51.63	\$13.75	\$50.28	\$51.98
2017-03-31	\$34.08	\$27.94	\$32.55	\$26.51	\$28.75	\$25.74	\$30.41	\$37.46	\$43.56	\$51.17	\$13.85	\$49.93	\$51.50
2017-04-03	\$34.13	\$27.84	\$32.35	\$26.45	\$28.71	\$25.51	\$30.15	\$37.90	\$43.81	\$51.64	\$13.78	\$50.35	\$51.76
2017-04-04	\$34.47	\$27.77	\$32.40	\$26.47	\$28.73	\$25.51	\$30.20	\$38.24	\$43.77	\$51.67	\$13.82	\$50.37	\$51.58
2017-04-05	\$34.63	\$27.70	\$32.30	\$26.29	\$28.52	\$25.32	\$30.16	\$37.41	\$44.14	\$51.67	\$13.90	\$50.40	\$51.22
2017-04-06	\$34.47	\$27.80	\$32.31	\$26.43	\$28.51	\$25.46	\$30.52	\$36.78	\$44.75	\$51.47	\$13.93	\$50.39	\$50.96
2017-04-07	\$34.39	\$27.81	\$32.30	\$26.43	\$28.43	\$25.38	\$30.44	\$37.00	\$44.85	\$52.07	\$13.85	\$50.39	\$51.07
2017-04-10	\$34.28	\$27.84	\$32.36	\$26.28	\$28.33	\$25.15	\$30.10	\$37.10	\$45.35	\$52.08	\$13.95	\$50.30	\$50.95
2017-04-11	\$34.27	\$27.85	\$32.74	\$26.33	\$28.34	\$25.23	\$30.16	\$37.00	\$44.86	\$51.90	\$13.95	\$50.00	\$51.21
2017-04-12	\$34.00	\$27.74	\$32.64	\$26.36	\$28.40	\$25.10	\$29.99	\$36.92	\$44.95	\$51.39	\$13.90	\$50.19	\$51.04
2017-04-13	\$33.75	\$27.55	\$32.42	\$26.11	\$28.15	\$24.75	\$29.79	\$36.09	\$45.13	\$51.19	\$13.87	\$49.97	\$50.61

2017-04-17	\$34.19	\$27.80	\$32.67	\$26.23	\$28.28	\$24.92	\$30.00	\$37.55	\$45.40	\$51.79	\$13.99	\$50.35	\$51.15
2017-04-18	\$33.89	\$27.74	\$32.54	\$25.98	\$28.25	\$24.66	\$29.94	\$37.28	\$44.91	\$51.55	\$13.96	\$49.66	\$50.99
2017-04-19	\$33.70	\$27.71	\$32.29	\$25.97	\$28.15	\$24.89	\$30.13	\$36.46	\$44.51	\$50.93	\$13.99	\$49.60	\$50.96
2017-04-20	\$33.97	\$27.95	\$32.40	\$26.43	\$28.34	\$25.06	\$30.34	\$36.33	\$44.48	\$51.47	\$13.84	\$50.38	\$51.27
2017-04-21	\$33.63	\$27.88	\$32.37	\$26.41	\$28.34	\$24.98	\$30.39	\$36.16	\$44.37	\$51.37	\$13.64	\$50.34	\$51.46
2017-04-24	\$33.51	\$28.15	\$33.00	\$27.95	\$29.66	\$26.54	\$31.96	\$37.22	\$44.50	\$52.23	\$13.76	\$50.72	\$51.82
2017-04-25	\$33.47	\$28.30	\$33.15	\$28.20	\$29.90	\$26.82	\$32.28	\$37.21	\$43.97	\$52.04	\$13.69	\$51.31	\$52.01
2017-04-26	\$33.55	\$28.28	\$33.10	\$28.00	\$29.73	\$26.66	\$32.00	\$36.86	\$43.57	\$50.99	\$13.69	\$51.22	\$52.07
2017-04-27	\$33.09	\$28.30	\$33.21	\$28.02	\$29.67	\$26.48	\$31.85	\$36.70	\$43.09	\$51.44	\$13.48	\$51.13	\$52.11
2017-04-28	\$33.36	\$28.18	\$33.10	\$28.02	\$29.68	\$26.45	\$31.92	\$37.17	\$42.94	\$51.76	\$13.55	\$51.16	\$51.86
2017-05-01	\$33.31	\$28.17	\$33.13	\$28.14	\$29.87	\$26.57	\$32.06	\$37.47	\$42.96	\$52.07	\$13.76	\$51.36	\$52.06
2017-05-02	\$33.55	\$28.09	\$33.37	\$28.39	\$29.97	\$26.71	\$32.38	\$38.31	\$43.60	\$52.35	\$13.57	\$51.34	\$52.22
2017-05-03	\$33.47	\$27.99	\$33.14	\$28.28	\$29.91	\$26.66	\$32.40	\$37.88	\$43.18	\$51.59	\$13.60	\$51.13	\$52.35
2017-05-04	\$33.07	\$27.95	\$33.28	\$28.96	\$30.42	\$27.41	\$33.22	\$36.90	\$42.83	\$50.82	\$13.43	\$50.45	\$52.48
2017-05-05	\$33.47	\$28.15	\$33.71	\$29.47	\$30.88	\$28.08	\$33.93	\$37.59	\$43.11	\$51.53	\$13.61	\$50.62	\$52.77
2017-05-08	\$33.53	\$28.11	\$33.57	\$28.90	\$30.44	\$27.71	\$33.27	\$37.11	\$42.34	\$51.01	\$13.72	\$50.69	\$52.79
2017-05-09	\$33.63	\$28.08	\$33.75	\$28.76	\$30.36	\$27.57	\$32.89	\$37.80	\$42.19	\$51.44	\$13.71	\$51.61	\$52.62
2017-05-10	\$34.05	\$28.29	\$33.96	\$28.76	\$30.33	\$27.65	\$32.93	\$38.58	\$42.71	\$52.03	\$13.87	\$52.08	\$52.38
2017-05-11	\$34.35	\$28.26	\$33.91	\$28.68	\$30.26	\$27.67	\$32.49	\$38.96	\$42.76	\$52.02	\$14.04	\$51.98	\$52.24
2017-05-12	\$34.57	\$28.16	\$34.07	\$28.97	\$30.54	\$27.90	\$32.72	\$39.74	\$42.99	\$52.08	\$14.22	\$52.41	\$52.37
2017-05-15	\$34.86	\$28.35	\$34.26	\$29.17	\$30.74	\$28.12	\$33.02	\$40.15	\$43.64	\$52.72	\$14.56	\$52.92	\$52.52
2017-05-16	\$34.77	\$28.30	\$34.59	\$29.49	\$31.02	\$28.51	\$33.37	\$40.44	\$43.66	\$52.54	\$14.54	\$53.17	\$52.56
2017-05-17	\$34.73	\$27.87	\$34.37	\$28.97	\$30.58	\$27.89	\$32.64	\$39.14	\$43.13	\$51.53	\$14.31	\$52.37	\$52.48
2017-05-18	\$34.24	\$27.97	\$34.48	\$28.98	\$30.63	\$28.06	\$32.52	\$32.75	\$42.29	\$50.73	\$14.14	\$52.48	\$52.62
2017-05-19	\$34.93	\$28.10	\$34.83	\$29.36	\$30.96	\$28.52	\$33.30	\$34.96	\$42.88	\$52.01	\$14.44	\$53.24	\$53.05
2017-05-22	\$35.01	\$28.22	\$34.84	\$29.47	\$31.02	\$28.69	\$33.12	\$33.99	\$42.81	\$51.85	\$14.30	\$53.85	\$53.02
2017-05-23	\$34.69	\$28.34	\$34.73	\$29.40	\$30.98	\$28.68	\$33.45	\$34.80	\$42.79	\$52.10	\$14.32	\$53.51	\$53.09
2017-05-24	\$34.66	\$28.46	\$34.77	\$29.45	\$31.01	\$28.62	\$33.49	\$35.18	\$43.26	\$53.10	\$14.36	\$53.54	\$53.01
2017-05-25	\$34.60	\$28.62	\$34.74	\$29.42	\$30.96	\$28.48	\$33.56	\$34.95	\$43.33	\$52.64	\$14.37	\$54.17	\$53.15

2017-05-26	\$34.62	\$28.63	\$34.48	\$29.37	\$30.79	\$28.34	\$33.29	\$35.50	\$43.40	\$53.06	\$14.43	\$54.19	\$53.18
2017-05-30	\$34.45	\$28.65	\$34.54	\$29.31	\$30.82	\$27.82	\$33.21	\$35.54	\$43.34	\$52.05	\$14.31	\$54.22	\$53.29
2017-05-31	\$34.38	\$28.69	\$34.61	\$29.39	\$31.02	\$27.87	\$33.37	\$35.17	\$42.91	\$51.62	\$14.15	\$53.77	\$53.29
2017-06-01	\$34.26	\$28.91	\$34.85	\$29.64	\$31.15	\$28.24	\$33.43	\$34.89	\$43.42	\$52.12	\$14.40	\$54.43	\$53.77
2017-06-02	\$34.28	\$28.99	\$34.80	\$29.90	\$31.69	\$28.35	\$33.69	\$34.93	\$43.56	\$52.00	\$14.41	\$54.47	\$54.90
2017-06-05	\$34.45	\$28.90	\$34.74	\$29.63	\$31.52	\$27.96	\$33.54	\$34.55	\$43.58	\$53.45	\$14.29	\$54.38	\$54.69
2017-06-06	\$34.75	\$28.74	\$34.65	\$29.46	\$31.27	\$28.03	\$33.37	\$34.96	\$43.80	\$53.24	\$14.56	\$54.63	\$54.73
2017-06-07	\$34.75	\$28.84	\$34.67	\$29.52	\$31.29	\$28.01	\$33.55	\$35.04	\$43.62	\$53.41	\$14.42	\$54.80	\$54.71
2017-06-08	\$34.80	\$28.91	\$34.54	\$29.38	\$31.20	\$28.35	\$33.78	\$34.89	\$43.55	\$53.34	\$14.42	\$55.80	\$54.58
2017-06-09	\$34.96	\$28.91	\$34.19	\$29.38	\$31.28	\$28.23	\$33.64	\$34.24	\$43.62	\$53.36	\$14.30	\$55.05	\$54.09
2017-06-12	\$34.40	\$28.95	\$34.03	\$29.11	\$31.12	\$28.10	\$33.38	\$33.85	\$43.76	\$53.59	\$14.39	\$54.59	\$54.26
2017-06-13	\$34.67	\$29.05	\$34.23	\$29.38	\$31.33	\$28.33	\$33.60	\$33.96	\$44.08	\$53.72	\$14.51	\$54.63	\$54.56
2017-06-14	\$34.28	\$29.03	\$34.14	\$29.36	\$31.45	\$28.25	\$33.42	\$34.32	\$43.96	\$54.17	\$14.49	\$54.39	\$54.53
2017-06-15	\$33.48	\$28.97	\$33.86	\$28.99	\$30.93	\$27.95	\$32.91	\$33.96	\$43.51	\$53.78	\$14.50	\$53.83	\$54.00
2017-06-16	\$33.78	\$29.00	\$34.23	\$29.36	\$31.23	\$28.22	\$33.33	\$34.14	\$43.42	\$54.46	\$14.50	\$53.90	\$54.22
2017-06-19	\$33.89	\$29.24	\$34.29	\$29.53	\$31.45	\$28.19	\$33.44	\$34.31	\$43.42	\$54.19	\$14.39	\$54.94	\$54.39
2017-06-20	\$33.12	\$29.01	\$33.00	\$28.77	\$30.56	\$27.34	\$32.61	\$32.82	\$42.08	\$52.83	\$14.07	\$54.31	\$54.06
2017-06-21	\$33.48	\$28.86	\$32.97	\$28.79	\$30.56	\$27.63	\$32.63	\$32.90	\$41.68	\$52.61	\$13.75	\$54.65	\$53.98
2017-06-22	\$33.64	\$28.79	\$32.94	\$28.77	\$30.53	\$27.49	\$32.51	\$33.10	\$41.91	\$53.11	\$13.74	\$54.93	\$54.09
2017-06-23	\$33.84	\$28.87	\$33.04	\$28.87	\$30.54	\$27.52	\$32.46	\$33.04	\$42.18	\$53.56	\$13.86	\$55.03	\$54.05
2017-06-26	\$33.97	\$28.91	\$33.15	\$28.97	\$30.58	\$27.70	\$32.52	\$34.00	\$42.36	\$54.24	\$13.79	\$55.47	\$53.90
2017-06-27	\$33.75	\$28.64	\$33.17	\$29.04	\$30.61	\$27.64	\$32.82	\$33.42	\$41.94	\$53.61	\$13.83	\$54.92	\$53.77
2017-06-28	\$33.85	\$28.86	\$33.47	\$29.29	\$30.88	\$28.24	\$33.41	\$33.96	\$41.72	\$54.36	\$14.12	\$55.33	\$54.01
2017-06-29	\$33.67	\$28.64	\$33.31	\$28.79	\$30.38	\$27.80	\$32.97	\$33.82	\$41.58	\$53.60	\$13.92	\$54.58	\$53.47
2017-06-30	\$33.87	\$28.70	\$33.33	\$28.76	\$30.27	\$27.80	\$32.84	\$34.14	\$41.67	\$53.94	\$13.91	\$54.69	\$53.65
2017-07-03	\$33.95	\$28.91	\$33.33	\$28.75	\$30.29	\$28.05	\$32.98	\$34.40	\$41.88	\$53.90	\$14.01	\$55.03	\$53.39
2017-07-05	\$34.07	\$28.88	\$33.34	\$28.76	\$30.32	\$27.89	\$32.93	\$34.45	\$42.70	\$53.85	\$14.00	\$54.95	\$53.40
2017-07-06	\$33.82	\$28.63	\$33.19	\$28.69	\$30.18	\$28.10	\$32.94	\$33.88	\$42.41	\$53.47	\$14.03	\$54.24	\$53.01
2017-07-07	\$33.72	\$28.86	\$33.19	\$28.71	\$30.32	\$28.15	\$33.01	\$34.07	\$42.62	\$54.14	\$13.94	\$54.31	\$52.98

2017-07-10	\$33.85	\$28.83	\$33.17	\$28.80	\$30.39	\$28.30	\$32.92	\$34.66	\$43.12	\$55.25	\$13.96	\$54.65	\$52.84
2017-07-11	\$34.00	\$28.79	\$33.04	\$28.92	\$30.65	\$28.52	\$33.03	\$35.24	\$43.13	\$55.11	\$13.99	\$55.65	\$53.20
2017-07-12	\$34.36	\$29.01	\$33.41	\$29.12	\$30.85	\$28.71	\$33.14	\$36.29	\$43.76	\$56.02	\$14.22	\$56.82	\$53.57
2017-07-13	\$34.37	\$29.06	\$33.60	\$29.23	\$30.89	\$28.80	\$33.48	\$36.55	\$44.16	\$56.35	\$14.23	\$56.94	\$53.50
2017-07-14	\$34.75	\$29.19	\$33.90	\$29.41	\$31.09	\$28.99	\$33.60	\$36.82	\$44.53	\$57.05	\$14.32	\$57.74	\$53.63
2017-07-17	\$34.87	\$29.26	\$33.79	\$29.37	\$30.94	\$28.92	\$33.48	\$36.78	\$44.73	\$57.20	\$14.31	\$57.40	\$53.56
2017-07-18	\$35.05	\$29.16	\$33.79	\$29.36	\$30.82	\$29.01	\$33.40	\$37.12	\$45.08	\$57.27	\$14.28	\$57.70	\$53.84
2017-07-19	\$35.10	\$29.33	\$33.89	\$29.47	\$30.82	\$29.13	\$33.43	\$37.13	\$45.21	\$57.15	\$14.27	\$58.44	\$54.06
2017-07-20	\$34.99	\$29.36	\$34.04	\$29.60	\$31.01	\$29.27	\$33.65	\$37.35	\$45.18	\$57.25	\$14.23	\$58.20	\$54.26
2017-07-21	\$35.07	\$29.36	\$33.93	\$29.39	\$30.66	\$29.10	\$33.40	\$37.06	\$44.99	\$57.32	\$14.16	\$58.14	\$54.36
2017-07-24	\$35.08	\$29.34	\$33.74	\$29.30	\$30.59	\$29.25	\$33.47	\$37.20	\$44.95	\$57.18	\$14.09	\$58.48	\$54.25
2017-07-25	\$35.36	\$29.41	\$33.95	\$29.43	\$30.62	\$29.35	\$33.68	\$37.13	\$45.22	\$57.03	\$14.19	\$58.44	\$54.06
2017-07-26	\$35.64	\$29.32	\$34.15	\$29.68	\$30.82	\$29.57	\$33.89	\$37.17	\$45.73	\$57.55	\$14.21	\$59.04	\$54.24
2017-07-27	\$35.64	\$29.19	\$34.00	\$29.53	\$30.56	\$29.56	\$33.94	\$37.12	\$45.51	\$56.63	\$14.25	\$58.74	\$54.42
2017-07-28	\$35.72	\$29.24	\$33.96	\$29.50	\$30.69	\$29.56	\$34.14	\$37.39	\$45.45	\$56.68	\$14.36	\$59.26	\$54.58
2017-07-31	\$35.55	\$29.25	\$34.12	\$29.44	\$30.71	\$29.76	\$34.13	\$37.80	\$45.46	\$56.30	\$14.36	\$59.41	\$54.76
2017-08-01	\$35.91	\$29.32	\$34.35	\$29.57	\$31.00	\$29.89	\$34.33	\$38.12	\$45.46	\$56.24	\$14.49	\$59.81	\$55.08
2017-08-02	\$35.78	\$29.26	\$34.38	\$29.65	\$31.00	\$30.01	\$34.34	\$38.54	\$45.50	\$56.39	\$14.58	\$59.34	\$55.05
2017-08-03	\$35.95	\$29.18	\$34.39	\$29.78	\$30.90	\$30.24	\$34.45	\$38.43	\$45.57	\$56.37	\$14.58	\$59.37	\$55.19
2017-08-04	\$35.67	\$29.29	\$34.38	\$29.94	\$31.06	\$30.29	\$34.60	\$38.30	\$45.63	\$56.47	\$14.45	\$59.60	\$55.14
2017-08-07	\$35.65	\$28.75	\$34.43	\$30.01	\$31.01	\$30.35	\$34.68	\$38.81	\$45.92	\$56.39	\$14.42	\$60.35	\$55.12
2017-08-08	\$35.77	\$29.27	\$34.22	\$29.83	\$30.88	\$30.10	\$34.52	\$38.74	\$45.90	\$56.51	\$14.28	\$60.81	\$55.06
2017-08-09	\$36.29	\$29.25	\$34.25	\$29.67	\$30.73	\$30.13	\$34.38	\$38.34	\$45.53	\$56.06	\$14.18	\$60.67	\$54.72
2017-08-10	\$35.76	\$28.84	\$33.62	\$29.33	\$30.20	\$29.73	\$33.54	\$37.61	\$45.35	\$55.58	\$14.15	\$58.70	\$54.15
2017-08-11	\$35.84	\$28.83	\$33.46	\$29.25	\$30.40	\$29.54	\$33.32	\$38.00	\$45.20	\$56.01	\$14.22	\$58.60	\$54.07
2017-08-14	\$35.92	\$29.19	\$33.61	\$29.54	\$30.72	\$29.89	\$33.87	\$38.05	\$45.56	\$56.71	\$14.32	\$59.39	\$54.47
2017-08-15	\$35.81	\$29.12	\$33.50	\$29.56	\$30.69	\$29.96	\$33.86	\$38.44	\$45.71	\$56.74	\$14.30	\$59.31	\$54.40
2017-08-16	\$36.28	\$29.23	\$33.68	\$29.71	\$30.86	\$30.10	\$33.99	\$38.93	\$46.22	\$57.11	\$14.45	\$60.41	\$54.58
2017-08-17	\$36.07	\$28.76	\$33.28	\$29.33	\$30.47	\$29.69	\$33.32	\$38.22	\$45.92	\$56.22	\$14.50	\$59.39	\$54.21

2017-08-18	\$36.36	\$28.72	\$33.19	\$29.40	\$30.64	\$29.93	\$33.44	\$39.03	\$46.21	\$56.86	\$14.41	\$59.67	\$54.45
2017-08-21	\$36.79	\$28.76	\$33.27	\$29.40	\$30.54	\$30.02	\$33.53	\$38.75	\$46.55	\$57.33	\$14.44	\$60.34	\$54.33
2017-08-22	\$36.88	\$29.00	\$33.37	\$29.56	\$30.84	\$29.93	\$33.64	\$39.33	\$46.76	\$57.43	\$14.51	\$61.20	\$54.44
2017-08-23	\$36.84	\$28.96	\$33.40	\$29.64	\$30.88	\$30.00	\$33.56	\$40.09	\$46.92	\$57.27	\$14.48	\$61.58	\$54.46
2017-08-24	\$37.01	\$28.92	\$33.41	\$29.54	\$30.79	\$30.06	\$33.54	\$40.30	\$47.31	\$57.29	\$14.47	\$61.56	\$54.18
2017-08-25	\$37.07	\$29.03	\$33.58	\$29.75	\$31.09	\$30.34	\$33.82	\$40.14	\$47.65	\$57.62	\$14.69	\$61.76	\$54.36
2017-08-28	\$37.37	\$29.00	\$33.63	\$29.76	\$31.11	\$30.46	\$33.75	\$40.08	\$48.25	\$56.62	\$14.53	\$61.27	\$54.42
2017-08-29	\$37.31	\$28.98	\$33.55	\$29.63	\$30.74	\$30.24	\$33.60	\$40.14	\$48.32	\$56.59	\$14.71	\$61.28	\$54.31
2017-08-30	\$37.16	\$29.05	\$33.58	\$29.52	\$30.65	\$30.06	\$33.48	\$39.99	\$47.54	\$56.85	\$14.56	\$61.76	\$54.28
2017-08-31	\$37.44	\$29.19	\$33.84	\$29.70	\$30.76	\$30.29	\$33.71	\$40.00	\$48.15	\$56.47	\$14.68	\$62.00	\$54.71
2017-09-01	\$37.80	\$29.34	\$33.99	\$29.80	\$30.85	\$30.43	\$33.74	\$40.61	\$48.47	\$56.76	\$14.73	\$62.12	\$54.49
2017-09-05	\$37.96	\$29.07	\$33.72	\$29.59	\$30.77	\$30.22	\$33.17	\$40.98	\$48.23	\$55.56	\$14.85	\$61.32	\$54.25
2017-09-06	\$38.46	\$29.06	\$33.85	\$29.90	\$31.27	\$30.59	\$33.24	\$41.89	\$47.97	\$56.18	\$14.92	\$61.60	\$54.48
2017-09-07	\$38.34	\$29.01	\$34.15	\$30.16	\$31.63	\$30.68	\$33.42	\$42.21	\$48.52	\$56.41	\$14.83	\$62.02	\$54.80
2017-09-08	\$38.15	\$29.12	\$34.24	\$30.16	\$31.59	\$30.65	\$33.37	\$41.92	\$48.01	\$55.86	\$14.95	\$61.54	\$54.97
2017-09-11	\$38.58	\$29.46	\$34.46	\$30.41	\$31.94	\$31.01	\$33.92	\$42.55	\$48.46	\$56.43	\$14.98	\$62.84	\$55.22
2017-09-12	\$38.51	\$29.53	\$34.63	\$30.57	\$32.02	\$31.12	\$33.91	\$42.37	\$48.55	\$56.24	\$14.95	\$63.00	\$55.26
2017-09-13	\$38.35	\$29.53	\$34.36	\$30.38	\$31.88	\$30.88	\$33.79	\$42.40	\$48.00	\$55.89	\$14.92	\$63.15	\$55.15
2017-09-14	\$38.35	\$29.60	\$34.51	\$30.52	\$31.95	\$30.99	\$33.80	\$42.66	\$48.36	\$56.13	\$14.90	\$63.10	\$55.16
2017-09-15	\$38.24	\$29.65	\$34.53	\$30.54	\$32.02	\$31.07	\$33.78	\$43.35	\$48.60	\$56.06	\$15.04	\$63.65	\$55.24
2017-09-18	\$38.22	\$29.77	\$34.54	\$30.59	\$32.10	\$31.26	\$33.87	\$43.13	\$48.63	\$55.91	\$15.02	\$64.26	\$55.25
2017-09-19	\$38.36	\$29.76	\$34.72	\$30.75	\$32.21	\$31.49	\$34.12	\$43.06	\$48.99	\$55.65	\$15.01	\$64.38	\$55.57
2017-09-20	\$38.18	\$29.76	\$34.67	\$30.68	\$32.11	\$31.38	\$33.79	\$43.19	\$49.14	\$55.86	\$15.01	\$64.27	\$55.59
2017-09-21	\$38.22	\$29.73	\$34.71	\$30.78	\$32.13	\$31.43	\$33.75	\$42.62	\$49.30	\$55.73	\$14.76	\$64.28	\$55.37
2017-09-22	\$38.26	\$29.77	\$34.84	\$30.90	\$32.19	\$31.51	\$33.81	\$42.73	\$49.26	\$55.99	\$14.87	\$63.83	\$55.43
2017-09-25	\$38.45	\$29.83	\$34.63	\$30.61	\$31.86	\$31.12	\$33.24	\$41.79	\$48.61	\$55.59	\$14.71	\$61.88	\$55.55
2017-09-26	\$38.27	\$29.72	\$34.53	\$30.48	\$31.77	\$31.02	\$32.96	\$41.68	\$48.15	\$55.41	\$14.71	\$62.02	\$55.55
2017-09-27	\$38.31	\$29.85	\$34.56	\$30.47	\$31.85	\$31.10	\$33.60	\$40.92	\$48.29	\$54.42	\$14.65	\$62.50	\$55.66
2017-09-28	\$38.66	\$29.89	\$34.67	\$30.57	\$32.01	\$31.10	\$33.46	\$40.97	\$48.45	\$54.44	\$14.63	\$62.20	\$55.70

2017-09-29	\$38.79	\$29.93	\$34.85	\$30.90	\$32.43	\$31.36	\$33.74	\$41.69	\$48.62	\$54.61	\$14.63	\$63.09	\$55.71
2017-10-02	\$39.37	\$30.16	\$34.76	\$30.83	\$32.35	\$31.28	\$33.14	\$41.72	\$48.81	\$54.67	\$14.59	\$63.42	\$55.71
2017-10-03	\$40.36	\$30.24	\$34.85	\$30.95	\$32.47	\$31.29	\$33.09	\$43.18	\$49.84	\$54.84	\$14.59	\$64.94	\$56.04
2017-10-04	\$40.53	\$30.30	\$34.88	\$30.91	\$32.48	\$30.79	\$32.07	\$43.32	\$50.14	\$54.64	\$14.68	\$64.86	\$56.05
2017-10-05	\$41.18	\$30.40	\$34.71	\$30.90	\$32.47	\$30.87	\$32.75	\$43.12	\$50.37	\$54.00	\$14.74	\$65.74	\$56.02
2017-10-06	\$40.81	\$30.41	\$34.66	\$30.90	\$32.48	\$30.77	\$32.87	\$42.62	\$50.53	\$53.57	\$14.66	\$65.31	\$55.99
2017-10-09	\$40.71	\$30.34	\$34.73	\$30.85	\$32.46	\$30.74	\$33.01	\$42.00	\$50.22	\$53.05	\$14.62	\$65.36	\$56.06
2017-10-10	\$40.53	\$30.41	\$35.16	\$31.15	\$32.69	\$31.06	\$33.53	\$42.82	\$50.73	\$52.59	\$14.65	\$66.01	\$56.46
2017-10-11	\$40.66	\$30.42	\$35.16	\$31.21	\$32.88	\$31.30	\$33.52	\$42.94	\$50.99	\$52.93	\$14.60	\$65.75	\$56.75
2017-10-12	\$41.03	\$30.43	\$35.24	\$31.15	\$32.84	\$30.99	\$33.39	\$42.76	\$50.78	\$52.44	\$14.64	\$65.38	\$56.68
2017-10-13	\$41.27	\$30.47	\$35.35	\$31.07	\$32.84	\$30.98	\$33.32	\$43.34	\$51.12	\$52.12	\$14.66	\$65.84	\$57.38
2017-10-16	\$41.62	\$30.47	\$35.23	\$31.04	\$32.77	\$30.92	\$32.92	\$42.94	\$51.60	\$51.48	\$14.60	\$66.15	\$57.64
2017-10-17	\$41.33	\$30.42	\$35.06	\$30.99	\$32.72	\$30.70	\$33.04	\$42.64	\$51.28	\$52.82	\$14.61	\$65.58	\$57.58
2017-10-18	\$41.39	\$30.44	\$35.11	\$31.16	\$32.90	\$30.84	\$33.33	\$42.70	\$51.16	\$52.27	\$14.67	\$66.19	\$57.52
2017-10-19	\$41.35	\$30.50	\$34.95	\$31.20	\$32.82	\$30.75	\$33.19	\$42.50	\$51.12	\$52.56	\$14.64	\$65.03	\$57.39
2017-10-20	\$41.55	\$30.71	\$34.98	\$31.04	\$32.63	\$30.76	\$33.08	\$42.26	\$51.07	\$51.97	\$14.50	\$65.52	\$57.52
2017-10-23	\$41.87	\$30.71	\$34.89	\$31.00	\$32.53	\$30.60	\$32.64	\$41.23	\$51.02	\$51.35	\$14.38	\$64.89	\$57.66
2017-10-24	\$42.13	\$30.81	\$34.80	\$31.12	\$32.65	\$31.06	\$32.94	\$41.50	\$50.76	\$51.65	\$14.27	\$64.84	\$58.14
2017-10-25	\$42.05	\$30.68	\$34.82	\$31.14	\$32.64	\$30.95	\$32.98	\$41.88	\$50.73	\$50.68	\$14.24	\$64.53	\$57.67
2017-10-26	\$41.91	\$30.82	\$34.65	\$31.17	\$32.69	\$30.95	\$33.12	\$40.63	\$50.35	\$50.23	\$14.15	\$64.32	\$57.98
2017-10-27	\$41.81	\$30.95	\$34.68	\$31.20	\$32.74	\$30.61	\$32.54	\$41.55	\$50.80	\$50.68	\$13.96	\$65.17	\$58.42
2017-10-30	\$41.78	\$30.81	\$34.79	\$31.30	\$32.89	\$30.84	\$33.45	\$40.16	\$51.08	\$50.15	\$13.81	\$64.67	\$58.40
2017-10-31	\$41.83	\$30.79	\$35.06	\$31.39	\$33.07	\$30.96	\$33.84	\$40.17	\$51.14	\$50.33	\$13.71	\$65.30	\$58.65
2017-11-01	\$42.05	\$30.85	\$34.87	\$31.35	\$33.35	\$31.13	\$33.81	\$39.90	\$51.29	\$50.08	\$13.67	\$65.75	\$58.98
2017-11-02	\$42.33	\$30.96	\$34.84	\$31.47	\$33.50	\$31.43	\$33.79	\$39.90	\$50.95	\$50.31	\$13.70	\$65.85	\$59.05
2017-11-03	\$42.38	\$31.00	\$34.85	\$31.35	\$33.39	\$31.22	\$33.22	\$39.31	\$50.31	\$50.13	\$13.58	\$65.83	\$59.19
2017-11-06	\$42.66	\$31.06	\$35.07	\$31.32	\$33.34	\$31.22	\$33.12	\$40.36	\$50.84	\$51.06	\$13.61	\$66.81	\$59.18
2017-11-07	\$42.00	\$31.06	\$34.81	\$31.09	\$33.07	\$31.09	\$32.71	\$39.16	\$50.25	\$50.75	\$13.69	\$67.05	\$59.65
2017-11-08	\$42.14	\$31.14	\$34.79	\$31.08	\$33.18	\$30.95	\$32.79	\$40.30	\$50.40	\$50.66	\$13.80	\$67.20	\$60.02

2017-11-09	\$41.94	\$30.96	\$34.71	\$30.79	\$32.82	\$30.82	\$32.68	\$39.61	\$49.93	\$50.77	\$13.86	\$67.07	\$59.52
2017-11-10	\$41.37	\$30.97	\$34.64	\$30.75	\$32.74	\$30.78	\$32.61	\$38.83	\$49.53	\$49.75	\$13.87	\$67.39	\$59.08
2017-11-13	\$41.04	\$31.07	\$34.38	\$30.55	\$32.67	\$30.58	\$32.52	\$38.95	\$49.10	\$49.74	\$13.74	\$67.37	\$58.82
2017-11-14	\$40.75	\$31.04	\$34.41	\$30.72	\$32.85	\$30.63	\$32.59	\$37.74	\$48.47	\$49.40	\$13.67	\$66.56	\$58.51
2017-11-15	\$40.33	\$30.89	\$34.24	\$30.60	\$32.61	\$30.44	\$32.68	\$38.02	\$48.14	\$49.16	\$13.71	\$66.09	\$58.08
2017-11-16	\$40.31	\$31.21	\$34.41	\$30.85	\$32.87	\$30.50	\$32.91	\$39.26	\$49.12	\$49.78	\$13.81	\$67.54	\$58.98
2017-11-17	\$40.81	\$31.22	\$34.44	\$30.72	\$32.71	\$30.35	\$32.72	\$39.83	\$50.05	\$50.26	\$13.97	\$67.57	\$58.69
2017-11-20	\$40.84	\$31.33	\$34.50	\$30.69	\$32.73	\$30.31	\$32.47	\$40.19	\$46.75	\$50.00	\$13.88	\$68.39	\$58.98
2017-11-21	\$41.24	\$31.43	\$34.63	\$30.87	\$33.04	\$30.58	\$32.45	\$40.43	\$47.62	\$51.03	\$14.02	\$69.96	\$59.52
2017-11-22	\$41.49	\$31.35	\$34.89	\$31.01	\$32.82	\$30.78	\$32.73	\$40.86	\$47.08	\$51.43	\$14.12	\$69.84	\$59.56
2017-11-24	\$41.67	\$31.39	\$34.96	\$31.50	\$33.32	\$31.15	\$33.15	\$40.73	\$46.38	\$51.26	\$14.07	\$69.45	\$60.05
2017-11-27	\$41.32	\$31.38	\$34.76	\$31.31	\$33.12	\$30.81	\$33.11	\$40.59	\$45.88	\$50.70	\$13.95	\$68.14	\$59.79
2017-11-28	\$41.19	\$31.73	\$35.11	\$31.42	\$33.22	\$30.88	\$33.37	\$41.00	\$45.97	\$51.00	\$13.84	\$68.67	\$59.97
2017-11-29	\$41.04	\$31.82	\$35.03	\$31.36	\$33.13	\$30.83	\$33.64	\$39.66	\$45.15	\$51.18	\$13.89	\$66.96	\$59.85
2017-11-30	\$41.05	\$31.94	\$35.02	\$31.36	\$33.24	\$31.01	\$33.64	\$38.70	\$44.92	\$50.19	\$13.83	\$66.24	\$59.91
2017-12-01	\$41.02	\$31.88	\$34.93	\$31.17	\$32.95	\$30.86	\$33.38	\$39.03	\$45.14	\$50.46	\$13.89	\$65.31	\$59.64
2017-12-04	\$40.23	\$31.74	\$34.82	\$31.25	\$33.06	\$30.84	\$33.33	\$39.64	\$44.86	\$50.36	\$13.89	\$65.04	\$59.01
2017-12-05	\$39.88	\$31.63	\$34.76	\$31.12	\$32.92	\$30.87	\$33.18	\$39.55	\$43.69	\$50.36	\$13.92	\$64.75	\$59.16
2017-12-06	\$39.56	\$31.60	\$34.71	\$31.08	\$32.87	\$30.77	\$33.02	\$40.03	\$43.29	\$49.57	\$13.85	\$63.90	\$58.94
2017-12-07	\$39.42	\$31.77	\$34.80	\$31.19	\$33.02	\$30.95	\$33.26	\$39.05	\$43.31	\$49.34	\$13.75	\$64.29	\$59.32
2017-12-08	\$39.53	\$32.01	\$35.05	\$31.27	\$33.14	\$31.35	\$33.52	\$39.01	\$43.70	\$50.03	\$13.87	\$65.51	\$59.60
2017-12-11	\$39.58	\$32.03	\$35.17	\$31.26	\$33.12	\$31.34	\$33.49	\$39.09	\$44.40	\$49.70	\$13.93	\$66.29	\$59.80
2017-12-12	\$39.66	\$31.98	\$35.27	\$31.26	\$33.07	\$31.18	\$33.38	\$40.09	\$44.55	\$49.45	\$13.87	\$65.37	\$59.91
2017-12-13	\$39.89	\$31.94	\$35.47	\$31.25	\$33.08	\$30.89	\$33.35	\$38.73	\$46.21	\$50.39	\$13.97	\$66.59	\$60.15
2017-12-14	\$38.27	\$31.70	\$35.38	\$30.92	\$32.89	\$30.49	\$33.06	\$38.31	\$46.53	\$50.02	\$14.06	\$65.73	\$59.87
2017-12-15	\$37.48	\$31.97	\$35.32	\$30.94	\$33.03	\$30.37	\$33.01	\$38.76	\$47.40	\$50.00	\$13.97	\$65.61	\$59.90
2017-12-18	\$38.91	\$32.23	\$35.71	\$31.33	\$33.54	\$30.84	\$33.42	\$39.22	\$52.31	\$50.78	\$14.19	\$66.25	\$60.62
2017-12-19	\$38.51	\$32.11	\$34.99	\$31.22	\$33.45	\$30.65	\$32.99	\$38.77	\$51.87	\$49.49	\$14.13	\$65.12	\$59.61
2017-12-20	\$38.92	\$32.14	\$34.98	\$31.12	\$33.15	\$30.54	\$33.01	\$38.82	\$51.34	\$49.31	\$14.19	\$65.09	\$59.69

2017-12-21	\$39.50	\$31.84	\$35.21	\$31.21	\$33.17	\$30.65	\$33.12	\$39.53	\$50.83	\$48.71	\$14.25	\$66.29	\$59.73
2017-12-22	\$40.72	\$31.85	\$35.33	\$31.19	\$33.10	\$30.73	\$32.92	\$39.51	\$51.68	\$48.16	\$14.31	\$66.78	\$60.01
2017-12-26	\$40.43	\$31.85	\$35.32	\$31.22	\$33.10	\$30.79	\$32.93	\$39.99	\$51.72	\$47.87	\$14.38	\$66.44	\$60.04
2017-12-27	\$40.48	\$31.92	\$35.46	\$31.23	\$33.18	\$30.67	\$32.86	\$40.11	\$51.70	\$48.50	\$14.38	\$66.17	\$59.96
2017-12-28	\$40.85	\$32.00	\$35.61	\$31.27	\$33.15	\$30.68	\$32.82	\$40.31	\$52.30	\$48.57	\$14.41	\$66.40	\$59.82
2017-12-29	\$40.98	\$31.79	\$35.82	\$31.22	\$33.02	\$30.44	\$32.77	\$40.45	\$52.16	\$49.29	\$14.44	\$66.54	\$59.93
2018-01-02	\$41.82	\$31.96	\$36.15	\$31.29	\$33.26	\$30.63	\$33.13	\$41.68	\$53.75	\$50.38	\$14.69	\$69.13	\$60.29
2018-01-03	\$42.15	\$32.23	\$36.09	\$31.45	\$33.43	\$30.64	\$33.18	\$42.19	\$53.76	\$50.37	\$14.88	\$69.68	\$61.12
2018-01-04	\$42.27	\$32.39	\$36.23	\$31.95	\$33.98	\$31.53	\$33.96	\$42.47	\$53.99	\$50.45	\$15.00	\$70.11	\$61.87
2018-01-05	\$42.70	\$32.59	\$36.39	\$32.25	\$34.33	\$31.85	\$34.19	\$42.84	\$54.46	\$50.98	\$14.99	\$70.61	\$62.04
2018-01-08	\$42.24	\$32.72	\$36.35	\$32.14	\$34.23	\$31.79	\$33.97	\$42.67	\$54.63	\$50.98	\$15.07	\$70.96	\$62.40
2018-01-09	\$42.03	\$32.73	\$36.38	\$32.31	\$34.22	\$31.94	\$33.98	\$42.34	\$54.36	\$50.59	\$14.89	\$71.00	\$62.44
2018-01-10	\$42.30	\$32.60	\$36.34	\$32.13	\$33.92	\$32.09	\$34.11	\$42.31	\$54.10	\$49.48	\$14.87	\$70.72	\$62.84
2018-01-11	\$42.59	\$32.83	\$36.57	\$32.35	\$34.08	\$32.56	\$34.55	\$43.10	\$54.72	\$49.70	\$15.04	\$70.90	\$63.26
2018-01-12	\$42.98	\$33.05	\$37.11	\$32.79	\$34.51	\$33.08	\$34.97	\$43.23	\$55.02	\$50.69	\$15.13	\$71.99	\$63.46
2018-01-16	\$43.12	\$32.91	\$37.06	\$32.88	\$34.56	\$33.16	\$35.21	\$43.08	\$54.48	\$51.67	\$15.08	\$71.35	\$63.46
2018-01-17	\$43.06	\$33.32	\$37.24	\$32.99	\$34.65	\$33.41	\$35.16	\$43.86	\$55.00	\$52.24	\$15.11	\$72.42	\$63.97
2018-01-18	\$43.46	\$33.18	\$37.24	\$32.95	\$34.85	\$33.48	\$35.06	\$43.96	\$55.51	\$52.62	\$15.37	\$72.55	\$63.43
2018-01-19	\$43.49	\$33.37	\$37.29	\$33.14	\$35.24	\$33.70	\$35.22	\$44.47	\$55.67	\$52.48	\$15.25	\$73.40	\$63.83
2018-01-22	\$43.57	\$33.54	\$37.61	\$33.34	\$35.46	\$34.02	\$35.73	\$44.63	\$55.64	\$52.55	\$15.36	\$73.91	\$64.10
2018-01-23	\$43.39	\$33.61	\$37.65	\$33.36	\$35.65	\$33.99	\$35.76	\$43.66	\$54.89	\$52.52	\$15.46	\$75.00	\$64.49
2018-01-24	\$44.17	\$33.56	\$37.82	\$33.39	\$35.56	\$33.92	\$35.94	\$46.35	\$55.27	\$53.92	\$16.22	\$75.20	\$64.51
2018-01-25	\$44.01	\$33.55	\$37.57	\$33.35	\$35.31	\$34.08	\$36.09	\$46.85	\$55.74	\$53.48	\$16.29	\$74.69	\$64.20
2018-01-26	\$44.31	\$33.90	\$37.88	\$33.73	\$35.54	\$34.44	\$36.24	\$47.33	\$56.12	\$54.07	\$16.21	\$76.72	\$64.67
2018-01-29	\$44.13	\$33.58	\$37.48	\$33.44	\$35.21	\$34.10	\$35.81	\$46.39	\$55.84	\$53.32	\$15.95	\$75.24	\$64.12
2018-01-30	\$43.40	\$33.11	\$37.30	\$33.22	\$34.93	\$33.64	\$35.44	\$46.31	\$55.45	\$52.64	\$15.89	\$73.84	\$63.30
2018-01-31	\$43.26	\$33.07	\$37.16	\$33.33	\$35.01	\$33.78	\$35.61	\$46.59	\$55.96	\$53.11	\$15.89	\$74.81	\$62.94
2018-02-01	\$43.58	\$33.02	\$37.16	\$33.50	\$34.70	\$34.17	\$35.78	\$46.72	\$56.17	\$54.06	\$16.18	\$73.11	\$63.25
2018-02-02	\$42.24	\$32.42	\$36.27	\$32.57	\$33.86	\$33.20	\$34.76	\$45.06	\$55.12	\$52.88	\$15.60	\$71.71	\$62.32

2018-02-05	\$41.74	\$31.29	\$34.54	\$31.16	\$32.47	\$31.71	\$33.36	\$43.46	\$53.70	\$50.68	\$15.30	\$69.58	\$59.37
2018-02-06	\$41.89	\$31.64	\$35.30	\$32.04	\$33.49	\$32.88	\$34.15	\$45.12	\$55.03	\$52.04	\$15.36	\$71.02	\$60.81
2018-02-07	\$40.81	\$31.60	\$34.94	\$31.48	\$32.92	\$32.44	\$33.49	\$43.73	\$54.89	\$51.04	\$15.20	\$68.29	\$60.27
2018-02-08	\$40.20	\$30.41	\$34.29	\$30.66	\$31.85	\$31.49	\$32.52	\$42.29	\$52.88	\$49.54	\$14.78	\$65.39	\$58.48
2018-02-09	\$40.23	\$30.85	\$34.28	\$30.69	\$32.08	\$31.70	\$32.67	\$43.16	\$52.73	\$50.34	\$14.69	\$65.83	\$59.07
2018-02-12	\$40.49	\$31.29	\$34.67	\$31.18	\$32.54	\$31.95	\$33.18	\$43.78	\$53.25	\$50.62	\$14.93	\$66.99	\$60.22
2018-02-13	\$40.91	\$31.41	\$34.73	\$31.13	\$32.48	\$31.73	\$32.93	\$44.01	\$52.98	\$50.75	\$14.79	\$67.69	\$59.48
2018-02-14	\$42.04	\$31.90	\$35.32	\$31.78	\$33.20	\$32.59	\$33.40	\$45.19	\$53.93	\$51.52	\$14.97	\$69.82	\$60.38
2018-02-15	\$42.37	\$32.17	\$35.65	\$32.09	\$33.22	\$32.68	\$33.52	\$45.51	\$54.97	\$52.17	\$15.25	\$71.57	\$60.67
2018-02-16	\$41.97	\$32.26	\$35.62	\$32.15	\$33.28	\$32.82	\$33.54	\$45.54	\$54.58	\$52.10	\$15.25	\$71.24	\$61.60
2018-02-20	\$41.65	\$32.06	\$35.24	\$31.88	\$32.96	\$32.26	\$33.42	\$45.87	\$54.66	\$51.45	\$15.21	\$70.63	\$61.10
2018-02-21	\$41.39	\$31.90	\$35.14	\$31.78	\$32.73	\$31.99	\$32.96	\$45.85	\$54.52	\$50.87	\$15.10	\$71.28	\$60.49
2018-02-22	\$41.81	\$31.95	\$35.21	\$31.99	\$32.89	\$31.92	\$33.34	\$46.26	\$55.18	\$51.89	\$15.24	\$71.16	\$60.77
2018-02-23	\$41.90	\$32.36	\$35.51	\$32.19	\$33.13	\$32.44	\$33.48	\$46.74	\$56.00	\$51.78	\$15.35	\$72.34	\$61.66
2018-02-26	\$42.28	\$32.60	\$35.73	\$32.39	\$33.28	\$32.53	\$33.76	\$47.13	\$55.69	\$51.64	\$15.41	\$73.00	\$62.46
2018-02-27	\$42.15	\$32.21	\$35.19	\$31.84	\$32.66	\$31.96	\$33.24	\$46.29	\$54.50	\$50.55	\$15.15	\$70.21	\$61.61
2018-02-28	\$41.92	\$31.87	\$34.67	\$31.63	\$32.43	\$31.71	\$32.85	\$45.48	\$53.71	\$49.91	\$14.90	\$69.20	\$61.07
2018-03-01	\$42.10	\$31.54	\$34.29	\$31.40	\$31.81	\$31.59	\$32.53	\$45.47	\$52.98	\$50.17	\$14.60	\$68.98	\$59.30
2018-03-02	\$42.14	\$31.69	\$34.37	\$31.37	\$31.81	\$31.51	\$32.57	\$45.60	\$53.38	\$50.11	\$14.51	\$68.98	\$59.97
2018-03-05	\$42.25	\$32.05	\$34.60	\$31.43	\$32.27	\$31.42	\$32.63	\$45.92	\$53.26	\$50.27	\$14.63	\$69.07	\$60.24
2018-03-06	\$42.60	\$32.24	\$34.77	\$31.62	\$32.46	\$32.07	\$32.80	\$46.24	\$53.24	\$50.62	\$14.85	\$69.77	\$60.61
2018-03-07	\$42.26	\$32.26	\$34.76	\$31.77	\$32.72	\$32.37	\$32.85	\$45.62	\$53.26	\$50.49	\$14.67	\$69.98	\$60.10
2018-03-08	\$41.89	\$32.28	\$34.82	\$31.81	\$32.68	\$32.47	\$32.70	\$45.05	\$53.08	\$51.37	\$14.60	\$70.26	\$60.47
2018-03-09	\$42.09	\$32.80	\$35.07	\$31.98	\$32.79	\$32.56	\$32.87	\$45.99	\$54.19	\$51.87	\$14.81	\$72.10	\$60.62
2018-03-12	\$42.01	\$32.67	\$35.02	\$32.00	\$32.94	\$32.56	\$32.98	\$46.22	\$54.01	\$52.06	\$14.76	\$72.39	\$60.68
2018-03-13	\$41.91	\$32.59	\$34.73	\$31.80	\$32.40	\$32.44	\$32.85	\$45.77	\$53.62	\$51.86	\$14.69	\$71.18	\$60.58
2018-03-14	\$41.65	\$32.35	\$34.81	\$31.91	\$32.55	\$32.26	\$32.91	\$45.70	\$53.80	\$51.60	\$14.67	\$71.73	\$60.84
2018-03-15	\$41.33	\$32.32	\$34.78	\$31.89	\$32.65	\$32.44	\$32.67	\$44.66	\$53.14	\$50.86	\$14.66	\$72.54	\$60.96
2018-03-16	\$41.34	\$32.51	\$34.86	\$31.88	\$32.63	\$32.56	\$32.87	\$44.61	\$52.84	\$50.43	\$14.66	\$72.64	\$60.69

2018-03-19	\$41.25	\$32.25	\$34.63	\$31.73	\$32.39	\$32.42	\$32.71	\$44.20	\$52.49	\$49.82	\$14.68	\$71.57	\$59.66
2018-03-20	\$41.36	\$32.36	\$34.58	\$31.64	\$32.42	\$32.32	\$32.55	\$43.92	\$52.27	\$50.02	\$14.65	\$72.86	\$60.00
2018-03-21	\$42.12	\$32.38	\$34.68	\$31.66	\$32.45	\$32.43	\$32.48	\$44.98	\$52.67	\$51.51	\$14.76	\$72.18	\$60.08
2018-03-22	\$41.57	\$31.49	\$34.05	\$31.00	\$31.70	\$31.63	\$31.71	\$43.91	\$51.70	\$50.76	\$14.51	\$68.53	\$59.53
2018-03-23	\$41.75	\$30.85	\$33.92	\$30.75	\$31.31	\$31.61	\$31.55	\$43.86	\$51.35	\$49.95	\$14.66	\$67.09	\$58.28
2018-03-26	\$42.18	\$31.63	\$34.62	\$31.36	\$31.95	\$32.02	\$32.37	\$44.53	\$52.00	\$51.15	\$14.94	\$69.79	\$59.11
2018-03-27	\$41.89	\$31.20	\$34.35	\$30.92	\$31.59	\$31.49	\$31.90	\$43.35	\$51.71	\$50.65	\$14.83	\$68.32	\$59.25
2018-03-28	\$41.72	\$31.14	\$34.60	\$31.16	\$31.56	\$31.95	\$32.29	\$43.54	\$51.90	\$50.23	\$14.80	\$67.36	\$59.92
2018-03-29	\$42.57	\$31.50	\$34.75	\$31.40	\$32.04	\$32.15	\$32.51	\$44.88	\$53.02	\$51.52	\$14.96	\$68.57	\$60.68
2018-04-02	\$42.48	\$30.91	\$34.38	\$30.98	\$31.56	\$31.67	\$32.13	\$44.17	\$52.67	\$50.15	\$14.90	\$66.91	\$59.46
2018-04-03	\$42.83	\$31.27	\$34.66	\$31.24	\$31.76	\$32.18	\$32.26	\$43.81	\$52.88	\$51.27	\$15.15	\$67.54	\$60.21
2018-04-04	\$43.27	\$31.60	\$35.03	\$31.41	\$31.82	\$32.31	\$32.30	\$43.79	\$53.43	\$52.62	\$15.26	\$67.65	\$60.27
2018-04-05	\$43.42	\$31.78	\$35.37	\$31.72	\$32.21	\$32.65	\$32.63	\$44.08	\$53.69	\$52.69	\$15.36	\$67.83	\$60.57
2018-04-06	\$42.98	\$31.12	\$35.27	\$31.63	\$32.09	\$32.57	\$32.52	\$43.42	\$53.32	\$52.34	\$15.36	\$66.20	\$59.62
2018-04-09	\$42.72	\$31.16	\$35.52	\$31.93	\$32.31	\$32.94	\$32.87	\$41.98	\$53.18	\$52.20	\$15.48	\$67.07	\$60.15
2018-04-10	\$43.43	\$31.66	\$36.06	\$32.28	\$32.76	\$33.32	\$33.17	\$42.82	\$54.10	\$52.94	\$15.73	\$69.08	\$60.48
2018-04-11	\$43.81	\$31.56	\$36.00	\$32.13	\$32.56	\$33.03	\$33.10	\$43.41	\$54.35	\$53.02	\$16.23	\$69.01	\$60.33
2018-04-12	\$43.53	\$31.75	\$36.25	\$32.28	\$32.80	\$33.34	\$33.11	\$43.26	\$54.67	\$53.41	\$16.30	\$69.10	\$60.23
2018-04-13	\$43.30	\$31.71	\$36.28	\$32.32	\$32.89	\$33.44	\$33.23	\$42.43	\$54.69	\$53.87	\$16.18	\$67.83	\$60.23
2018-04-16	\$43.59	\$32.11	\$36.19	\$32.49	\$32.90	\$33.60	\$33.48	\$41.88	\$54.52	\$53.75	\$15.95	\$67.48	\$60.40
2018-04-17	\$44.27	\$32.41	\$36.26	\$32.72	\$33.30	\$33.96	\$33.56	\$42.61	\$54.68	\$54.16	\$16.23	\$67.77	\$60.63
2018-04-18	\$44.67	\$32.49	\$36.51	\$32.85	\$33.36	\$34.15	\$33.78	\$43.84	\$55.32	\$54.11	\$16.44	\$67.76	\$61.04
2018-04-19	\$44.95	\$32.23	\$36.37	\$32.86	\$33.19	\$34.13	\$33.76	\$43.60	\$55.46	\$52.53	\$16.44	\$67.75	\$60.81
2018-04-20	\$44.84	\$32.02	\$36.27	\$32.72	\$32.96	\$33.99	\$33.62	\$43.16	\$55.28	\$52.21	\$16.08	\$66.85	\$60.69
2018-04-23	\$44.44	\$32.06	\$36.25	\$32.66	\$32.84	\$34.14	\$33.61	\$42.60	\$54.72	\$51.11	\$15.95	\$66.45	\$60.61
2018-04-24	\$44.45	\$31.70	\$36.18	\$32.57	\$32.56	\$34.01	\$33.22	\$42.39	\$54.91	\$50.96	\$16.00	\$66.47	\$60.39
2018-04-25	\$44.00	\$31.78	\$36.09	\$32.47	\$32.39	\$33.79	\$33.24	\$42.04	\$54.16	\$51.01	\$15.60	\$66.03	\$60.58
2018-04-26	\$44.28	\$32.02	\$36.37	\$32.60	\$32.52	\$33.93	\$33.19	\$42.87	\$54.51	\$51.26	\$15.72	\$66.64	\$60.95
2018-04-27	\$44.00	\$31.97	\$36.34	\$32.78	\$32.65	\$33.72	\$33.34	\$43.06	\$54.47	\$51.67	\$15.80	\$66.96	\$60.78

2018-04-30	\$43.76	\$31.64	\$36.25	\$32.68	\$32.46	\$33.57	\$33.26	\$42.30	\$53.78	\$51.60	\$15.85	\$66.85	\$60.64
2018-05-01	\$43.34	\$31.67	\$36.07	\$32.57	\$32.34	\$33.42	\$33.04	\$41.77	\$53.14	\$50.91	\$15.78	\$66.99	\$60.59
2018-05-02	\$43.54	\$31.54	\$35.88	\$32.55	\$32.65	\$33.69	\$33.28	\$41.08	\$52.83	\$50.10	\$15.62	\$66.82	\$60.23
2018-05-03	\$42.99	\$31.57	\$35.98	\$32.72	\$32.67	\$33.78	\$33.36	\$40.73	\$52.45	\$49.38	\$15.39	\$66.50	\$60.29
2018-05-04	\$43.20	\$31.89	\$36.07	\$32.68	\$32.84	\$33.99	\$33.45	\$40.75	\$52.11	\$48.79	\$15.52	\$67.20	\$60.73
2018-05-07	\$43.17	\$31.93	\$36.10	\$32.56	\$32.98	\$34.01	\$33.39	\$40.10	\$51.99	\$47.58	\$15.47	\$67.35	\$60.80
2018-05-08	\$42.81	\$31.89	\$36.08	\$32.46	\$32.86	\$33.53	\$33.36	\$40.11	\$51.21	\$47.54	\$15.21	\$68.27	\$60.99
2018-05-09	\$42.93	\$32.11	\$36.65	\$32.50	\$32.90	\$33.52	\$33.57	\$40.48	\$51.68	\$47.30	\$15.31	\$68.61	\$60.47
2018-05-10	\$43.49	\$32.40	\$36.72	\$32.80	\$33.20	\$33.41	\$33.85	\$41.86	\$53.02	\$48.56	\$15.49	\$69.81	\$60.82
2018-05-11	\$43.51	\$32.46	\$36.77	\$32.84	\$33.15	\$33.54	\$33.94	\$40.94	\$53.18	\$48.07	\$15.39	\$69.74	\$61.28
2018-05-14	\$43.17	\$32.47	\$36.84	\$32.86	\$33.09	\$33.58	\$33.88	\$40.65	\$52.68	\$47.39	\$15.50	\$70.34	\$61.62
2018-05-15	\$42.62	\$32.28	\$36.74	\$32.63	\$32.85	\$33.40	\$33.51	\$40.14	\$52.11	\$46.96	\$15.29	\$69.04	\$60.99
2018-05-16	\$42.74	\$32.46	\$36.88	\$32.61	\$32.82	\$32.63	\$33.07	\$40.58	\$52.34	\$47.27	\$15.19	\$70.50	\$61.17
2018-05-17	\$42.80	\$32.56	\$37.08	\$32.76	\$33.01	\$32.40	\$33.20	\$39.08	\$51.94	\$46.31	\$14.80	\$69.49	\$61.16
2018-05-18	\$42.52	\$32.51	\$36.94	\$32.70	\$32.88	\$31.98	\$32.83	\$38.30	\$51.66	\$45.55	\$14.68	\$69.16	\$61.01
2018-05-21	\$42.65	\$32.72	\$37.23	\$32.94	\$33.14	\$31.95	\$32.72	\$38.39	\$51.47	\$45.38	\$14.85	\$69.69	\$61.08
2018-05-22	\$42.85	\$32.56	\$37.26	\$32.96	\$33.10	\$32.13	\$32.94	\$39.37	\$52.13	\$46.02	\$15.00	\$69.36	\$60.94
2018-05-23	\$42.54	\$32.56	\$36.76	\$32.53	\$32.53	\$31.65	\$32.44	\$38.64	\$52.29	\$46.72	\$14.93	\$69.30	\$60.70
2018-05-24	\$42.70	\$32.63	\$36.54	\$32.61	\$32.27	\$31.41	\$32.37	\$38.14	\$51.30	\$46.07	\$15.05	\$69.02	\$60.33
2018-05-25	\$42.59	\$32.49	\$36.21	\$32.27	\$32.20	\$30.61	\$31.55	\$37.25	\$51.37	\$46.00	\$14.84	\$69.18	\$60.13
2018-05-29	\$41.93	\$32.18	\$35.60	\$31.26	\$31.19	\$28.83	\$29.82	\$35.33	\$50.16	\$44.71	\$14.97	\$67.97	\$59.73
2018-05-30	\$42.18	\$32.55	\$36.16	\$31.81	\$31.92	\$30.08	\$30.64	\$35.68	\$50.24	\$45.16	\$15.06	\$68.27	\$60.15
2018-05-31	\$42.14	\$32.29	\$36.03	\$31.82	\$31.64	\$30.29	\$30.51	\$35.62	\$49.91	\$44.68	\$15.06	\$68.83	\$59.74
2018-06-01	\$42.54	\$32.71	\$36.27	\$32.09	\$31.81	\$30.36	\$30.87	\$35.81	\$49.98	\$44.98	\$15.35	\$69.87	\$60.15
2018-06-04	\$42.68	\$32.86	\$36.25	\$32.17	\$31.99	\$30.31	\$31.17	\$36.42	\$50.87	\$44.97	\$15.63	\$71.06	\$60.51
2018-06-05	\$42.80	\$32.97	\$36.23	\$32.15	\$32.00	\$30.00	\$30.93	\$34.97	\$50.14	\$43.78	\$15.58	\$71.24	\$60.40
2018-06-06	\$43.29	\$33.14	\$36.57	\$32.45	\$32.48	\$30.33	\$31.62	\$34.48	\$50.31	\$44.21	\$15.51	\$72.14	\$60.66
2018-06-07	\$42.94	\$33.08	\$36.38	\$32.11	\$32.09	\$29.85	\$31.61	\$32.71	\$49.73	\$43.86	\$15.34	\$71.31	\$60.66
2018-06-08	\$42.86	\$33.20	\$36.43	\$32.25	\$32.20	\$29.59	\$31.53	\$34.14	\$50.30	\$44.92	\$15.25	\$71.09	\$60.84

2018-06-11	\$42.75	\$33.26	\$36.63	\$32.51	\$32.46	\$30.70	\$32.01	\$33.80	\$50.13	\$44.63	\$15.29	\$71.12	\$61.03
2018-06-12	\$42.78	\$33.27	\$36.37	\$32.19	\$32.32	\$30.49	\$31.90	\$34.16	\$50.01	\$44.77	\$15.22	\$71.43	\$60.65
2018-06-13	\$42.45	\$33.16	\$36.33	\$32.29	\$32.45	\$30.68	\$31.90	\$33.80	\$49.96	\$44.67	\$15.32	\$70.48	\$60.70
2018-06-14	\$42.08	\$33.20	\$36.44	\$32.29	\$32.59	\$30.60	\$31.62	\$32.68	\$49.83	\$44.86	\$15.35	\$70.46	\$60.64
2018-06-15	\$41.36	\$33.22	\$35.96	\$32.27	\$32.43	\$30.35	\$31.35	\$33.04	\$49.78	\$45.06	\$15.12	\$70.16	\$60.32
2018-06-18	\$41.22	\$33.19	\$35.78	\$31.92	\$31.94	\$30.19	\$31.04	\$32.57	\$49.20	\$45.17	\$15.10	\$69.47	\$59.88
2018-06-19	\$40.42	\$32.99	\$34.72	\$30.94	\$30.80	\$29.42	\$30.68	\$32.72	\$47.65	\$44.40	\$14.76	\$67.88	\$58.79
2018-06-20	\$40.21	\$33.02	\$34.74	\$30.74	\$30.77	\$29.37	\$30.64	\$32.54	\$47.65	\$45.09	\$14.89	\$67.85	\$58.81
2018-06-21	\$39.79	\$32.80	\$34.51	\$30.47	\$30.34	\$28.76	\$30.35	\$31.88	\$47.14	\$44.98	\$14.70	\$66.54	\$58.59
2018-06-22	\$40.05	\$32.72	\$35.08	\$30.83	\$30.63	\$29.12	\$30.67	\$32.04	\$47.23	\$45.78	\$14.85	\$67.07	\$58.88
2018-06-25	\$39.69	\$32.29	\$34.36	\$30.53	\$30.10	\$28.75	\$30.40	\$32.32	\$46.81	\$46.13	\$14.78	\$65.29	\$58.08
2018-06-26	\$39.59	\$32.19	\$34.48	\$30.43	\$29.99	\$28.66	\$30.37	\$32.15	\$46.45	\$46.20	\$14.82	\$65.09	\$58.42
2018-06-27	\$39.25	\$31.86	\$34.26	\$30.17	\$29.67	\$28.40	\$29.96	\$31.00	\$46.08	\$45.61	\$14.73	\$63.04	\$58.03
2018-06-28	\$38.88	\$31.99	\$34.50	\$30.19	\$29.53	\$28.55	\$30.11	\$31.89	\$45.76	\$46.92	\$14.75	\$63.65	\$58.10
2018-06-29	\$39.25	\$31.97	\$34.78	\$30.52	\$29.98	\$28.89	\$30.35	\$32.05	\$46.04	\$47.14	\$14.95	\$64.60	\$57.91
2018-07-02	\$38.84	\$32.03	\$34.37	\$30.34	\$29.83	\$28.65	\$30.24	\$31.87	\$45.71	\$45.95	\$14.94	\$63.68	\$56.99
2018-07-03	\$38.79	\$31.92	\$34.48	\$30.48	\$29.93	\$28.97	\$30.46	\$32.55	\$46.33	\$47.36	\$15.23	\$63.54	\$56.92
2018-07-05	\$38.62	\$32.17	\$34.85	\$31.03	\$30.44	\$29.41	\$31.43	\$32.29	\$45.61	\$49.62	\$15.29	\$63.07	\$56.83
2018-07-06	\$39.02	\$32.38	\$34.95	\$31.17	\$30.65	\$29.51	\$31.64	\$33.18	\$45.74	\$50.43	\$15.43	\$64.04	\$57.20
2018-07-09	\$39.81	\$32.65	\$35.25	\$31.34	\$30.82	\$29.68	\$31.82	\$33.54	\$46.52	\$50.41	\$15.19	\$65.40	\$57.99
2018-07-10	\$39.30	\$32.74	\$35.30	\$31.48	\$30.93	\$29.69	\$31.68	\$33.69	\$46.63	\$50.91	\$15.31	\$64.71	\$57.77
2018-07-11	\$38.41	\$32.46	\$34.62	\$30.91	\$30.30	\$29.02	\$31.00	\$32.74	\$46.05	\$50.40	\$15.03	\$63.44	\$56.97
2018-07-12	\$38.71	\$32.70	\$35.01	\$31.23	\$30.54	\$29.18	\$31.15	\$33.40	\$46.36	\$50.44	\$15.14	\$64.70	\$57.03
2018-07-13	\$38.94	\$32.77	\$35.05	\$31.37	\$30.63	\$29.30	\$30.98	\$34.05	\$46.21	\$50.25	\$15.24	\$64.60	\$57.56
2018-07-16	\$38.80	\$32.65	\$34.83	\$31.41	\$30.79	\$29.29	\$31.09	\$33.89	\$46.03	\$50.50	\$15.24	\$64.15	\$57.58
2018-07-17	\$39.39	\$32.80	\$34.66	\$31.40	\$30.99	\$29.41	\$30.96	\$34.82	\$46.54	\$50.60	\$15.29	\$64.23	\$58.09
2018-07-18	\$39.59	\$32.96	\$34.64	\$31.36	\$31.02	\$29.25	\$30.89	\$34.39	\$46.62	\$50.76	\$15.21	\$64.08	\$58.00
2018-07-19	\$39.12	\$32.94	\$34.49	\$31.20	\$30.84	\$29.08	\$30.84	\$34.50	\$45.91	\$50.10	\$15.13	\$62.85	\$58.01
2018-07-20	\$39.39	\$32.78	\$34.79	\$31.28	\$30.77	\$29.26	\$31.04	\$35.65	\$46.48	\$50.48	\$15.21	\$63.66	\$58.19

2018-07-23	\$39.42	\$32.81	\$34.65	\$31.11	\$30.80	\$29.05	\$31.12	\$35.33	\$46.11	\$50.77	\$14.97	\$63.35	\$58.48
2018-07-24	\$40.06	\$32.72	\$34.99	\$31.35	\$31.02	\$29.22	\$31.11	\$36.24	\$47.05	\$51.22	\$15.14	\$64.62	\$58.72
2018-07-25	\$40.66	\$32.97	\$35.04	\$31.68	\$31.27	\$29.40	\$31.29	\$37.15	\$47.56	\$51.88	\$15.18	\$65.94	\$59.10
2018-07-26	\$40.11	\$33.20	\$34.71	\$31.37	\$31.19	\$29.25	\$31.02	\$36.11	\$47.46	\$51.73	\$15.12	\$64.73	\$59.25
2018-07-27	\$40.30	\$33.01	\$34.78	\$31.52	\$31.25	\$29.37	\$31.28	\$36.73	\$47.14	\$51.87	\$15.10	\$64.27	\$59.43
2018-07-30	\$40.36	\$32.81	\$34.86	\$31.59	\$31.29	\$29.52	\$31.52	\$36.76	\$47.52	\$52.18	\$15.27	\$63.62	\$58.98
2018-07-31	\$40.62	\$32.98	\$35.11	\$31.72	\$31.31	\$29.87	\$31.57	\$36.10	\$48.22	\$51.98	\$15.16	\$63.82	\$58.53
2018-08-01	\$40.23	\$32.83	\$34.67	\$31.56	\$31.06	\$29.26	\$31.28	\$35.99	\$47.45	\$51.72	\$15.04	\$62.68	\$58.91
2018-08-02	\$39.14	\$33.01	\$34.29	\$31.35	\$30.61	\$28.79	\$30.95	\$36.23	\$47.15	\$51.15	\$14.88	\$61.86	\$58.58
2018-08-03	\$39.65	\$33.17	\$34.49	\$31.39	\$30.69	\$28.86	\$30.97	\$37.55	\$47.50	\$51.89	\$14.99	\$61.73	\$58.57
2018-08-06	\$39.14	\$33.25	\$34.24	\$31.21	\$30.57	\$28.77	\$30.79	\$37.03	\$46.77	\$51.92	\$14.99	\$61.22	\$58.13
2018-08-07	\$39.32	\$33.42	\$34.51	\$31.54	\$30.76	\$29.20	\$31.04	\$36.36	\$46.87	\$52.90	\$14.97	\$62.29	\$58.62
2018-08-08	\$39.16	\$33.46	\$34.58	\$31.45	\$30.68	\$29.15	\$31.02	\$35.90	\$46.49	\$52.74	\$14.81	\$62.05	\$58.56
2018-08-09	\$39.37	\$33.38	\$34.51	\$31.29	\$30.65	\$28.75	\$30.74	\$35.40	\$46.07	\$51.40	\$14.78	\$62.68	\$58.34
2018-08-10	\$38.79	\$33.20	\$33.97	\$30.42	\$29.72	\$27.76	\$29.81	\$33.84	\$45.19	\$49.62	\$14.54	\$62.16	\$57.50
2018-08-13	\$38.12	\$33.05	\$33.86	\$30.40	\$29.58	\$27.59	\$29.59	\$34.02	\$44.53	\$49.55	\$14.21	\$61.25	\$57.16
2018-08-14	\$38.23	\$33.32	\$33.71	\$30.35	\$29.60	\$27.47	\$29.59	\$34.70	\$44.74	\$50.69	\$14.23	\$60.40	\$57.39
2018-08-15	\$37.05	\$32.97	\$33.10	\$29.76	\$28.99	\$26.69	\$29.04	\$33.80	\$43.59	\$49.21	\$14.03	\$58.18	\$56.69
2018-08-16	\$36.97	\$33.25	\$33.36	\$30.01	\$29.19	\$26.93	\$29.19	\$33.63	\$44.13	\$49.25	\$14.09	\$58.79	\$57.00
2018-08-17	\$37.17	\$33.38	\$33.51	\$30.27	\$29.42	\$26.88	\$29.39	\$33.28	\$44.08	\$49.81	\$14.10	\$59.59	\$57.19
2018-08-20	\$37.36	\$33.53	\$33.75	\$30.48	\$29.70	\$27.13	\$29.51	\$33.08	\$44.13	\$50.02	\$14.10	\$60.11	\$57.42
2018-08-21	\$37.31	\$33.66	\$33.86	\$30.90	\$30.12	\$27.68	\$30.08	\$31.98	\$44.41	\$50.83	\$14.34	\$61.08	\$57.41
2018-08-22	\$37.49	\$33.59	\$34.02	\$31.08	\$30.19	\$27.67	\$30.26	\$32.61	\$44.98	\$51.86	\$14.45	\$61.43	\$57.65
2018-08-23	\$37.10	\$33.57	\$33.61	\$30.89	\$30.03	\$27.42	\$29.98	\$31.53	\$44.31	\$51.02	\$14.40	\$60.30	\$57.41
2018-08-24	\$37.65	\$33.76	\$33.83	\$31.22	\$30.37	\$27.78	\$30.29	\$31.97	\$44.99	\$51.19	\$14.42	\$61.21	\$57.61
2018-08-27	\$37.99	\$33.96	\$34.26	\$31.63	\$30.87	\$28.04	\$30.67	\$32.81	\$45.23	\$52.22	\$14.59	\$62.44	\$58.48
2018-08-28	\$37.93	\$34.03	\$34.09	\$31.72	\$30.87	\$27.78	\$30.56	\$32.19	\$44.94	\$50.95	\$14.50	\$62.07	\$58.30
2018-08-29	\$37.94	\$34.13	\$34.31	\$31.85	\$31.00	\$28.00	\$30.58	\$32.80	\$44.74	\$51.59	\$14.34	\$62.62	\$58.51
2018-08-30	\$36.83	\$33.99	\$33.96	\$31.51	\$30.67	\$27.50	\$30.10	\$31.63	\$43.42	\$50.43	\$14.14	\$60.61	\$58.10

2018-08-31	\$36.96	\$33.97	\$33.57	\$31.02	\$30.23	\$27.10	\$29.72	\$32.45	\$43.34	\$50.34	\$14.02	\$60.74	\$58.22
2018-09-04	\$36.07	\$33.97	\$33.34	\$30.65	\$29.89	\$27.50	\$29.77	\$30.96	\$41.94	\$49.03	\$13.77	\$59.99	\$57.50
2018-09-05	\$36.03	\$33.92	\$33.24	\$30.29	\$29.58	\$27.61	\$29.68	\$31.18	\$41.97	\$48.84	\$13.62	\$58.40	\$56.89
2018-09-06	\$35.45	\$33.75	\$33.02	\$30.29	\$29.37	\$27.49	\$29.37	\$32.04	\$42.13	\$49.33	\$13.45	\$58.19	\$57.02
2018-09-07	\$35.41	\$33.63	\$32.79	\$30.02	\$29.13	\$27.14	\$28.94	\$32.51	\$42.27	\$49.28	\$13.46	\$57.87	\$56.67
2018-09-10	\$35.09	\$33.66	\$33.02	\$30.32	\$29.36	\$27.98	\$29.47	\$32.14	\$41.83	\$49.30	\$13.39	\$56.88	\$56.80
2018-09-11	\$34.94	\$33.66	\$33.01	\$30.41	\$29.35	\$27.92	\$29.49	\$31.00	\$42.00	\$49.47	\$13.37	\$56.80	\$56.92
2018-09-12	\$35.39	\$33.63	\$33.17	\$30.64	\$29.45	\$28.04	\$29.43	\$31.25	\$42.85	\$50.39	\$13.57	\$57.24	\$57.03
2018-09-13	\$35.48	\$33.87	\$33.28	\$30.89	\$29.75	\$28.06	\$29.79	\$30.72	\$44.18	\$51.37	\$13.66	\$58.71	\$57.47
2018-09-14	\$35.54	\$33.99	\$33.28	\$30.78	\$29.71	\$27.87	\$29.70	\$31.22	\$44.25	\$51.02	\$13.50	\$58.17	\$58.12
2018-09-17	\$35.32	\$33.82	\$33.32	\$30.84	\$29.67	\$28.28	\$29.94	\$32.13	\$44.66	\$50.89	\$13.63	\$57.40	\$58.15
2018-09-18	\$35.74	\$34.00	\$33.47	\$30.99	\$29.93	\$28.49	\$30.16	\$32.53	\$45.03	\$51.23	\$13.77	\$58.05	\$59.54
2018-09-19	\$36.33	\$33.85	\$33.64	\$31.13	\$30.01	\$28.57	\$30.37	\$32.53	\$45.53	\$51.32	\$13.66	\$59.41	\$59.75
2018-09-20	\$36.96	\$34.09	\$34.18	\$31.72	\$30.56	\$29.03	\$31.06	\$32.97	\$46.12	\$51.14	\$13.74	\$60.06	\$59.91
2018-09-21	\$37.14	\$34.08	\$34.15	\$31.79	\$30.58	\$29.07	\$30.84	\$33.76	\$46.25	\$50.99	\$13.70	\$60.61	\$60.04
2018-09-24	\$36.97	\$33.96	\$34.10	\$31.70	\$30.39	\$28.87	\$30.56	\$32.79	\$45.65	\$50.50	\$13.75	\$59.68	\$59.77
2018-09-25	\$37.13	\$33.85	\$34.42	\$31.77	\$30.49	\$29.31	\$30.57	\$33.13	\$45.55	\$50.69	\$13.80	\$59.91	\$60.22
2018-09-26	\$37.11	\$33.55	\$34.42	\$31.85	\$30.36	\$29.26	\$30.51	\$33.65	\$45.48	\$51.00	\$13.77	\$60.23	\$60.51
2018-09-27	\$36.93	\$33.54	\$34.45	\$31.69	\$30.28	\$28.70	\$30.25	\$34.35	\$45.44	\$51.13	\$13.80	\$60.26	\$60.35
2018-09-28	\$36.92	\$33.62	\$34.12	\$31.39	\$29.74	\$27.66	\$29.61	\$33.73	\$45.31	\$51.23	\$13.83	\$59.89	\$60.23
2018-10-01	\$37.10	\$33.67	\$34.09	\$31.36	\$29.90	\$27.49	\$29.61	\$33.71	\$45.31	\$51.61	\$13.94	\$59.90	\$60.64
2018-10-02	\$37.25	\$33.61	\$33.91	\$31.13	\$29.71	\$27.36	\$29.33	\$35.61	\$45.40	\$50.83	\$13.77	\$58.50	\$60.50
2018-10-03	\$36.89	\$33.76	\$34.05	\$31.18	\$29.82	\$27.54	\$29.44	\$36.90	\$45.52	\$49.99	\$13.87	\$58.24	\$59.97
2018-10-04	\$36.55	\$33.44	\$33.75	\$30.73	\$29.47	\$27.33	\$29.34	\$36.51	\$44.42	\$49.32	\$13.74	\$56.71	\$59.16
2018-10-05	\$36.55	\$33.24	\$33.53	\$30.45	\$29.19	\$27.08	\$29.16	\$36.66	\$43.76	\$49.58	\$13.76	\$56.63	\$59.17
2018-10-08	\$36.42	\$33.21	\$33.24	\$30.19	\$28.80	\$26.53	\$29.19	\$39.13	\$44.34	\$49.33	\$13.60	\$55.93	\$59.43
2018-10-09	\$36.78	\$33.02	\$33.24	\$30.16	\$28.77	\$26.71	\$29.21	\$39.58	\$43.83	\$49.48	\$13.55	\$55.35	\$59.09
2018-10-10	\$36.07	\$32.09	\$32.76	\$29.36	\$28.08	\$26.21	\$28.83	\$38.12	\$42.54	\$48.66	\$13.21	\$53.46	\$57.64
2018-10-11	\$36.53	\$31.39	\$32.25	\$29.12	\$27.84	\$25.84	\$28.54	\$37.51	\$42.66	\$48.52	\$13.05	\$53.25	\$56.60

2018-10-12	\$36.46	\$31.70	\$32.32	\$29.19	\$27.95	\$25.84	\$28.30	\$38.61	\$43.06	\$48.71	\$13.24	\$55.07	\$56.73
2018-10-15	\$36.56	\$31.64	\$32.32	\$29.05	\$28.07	\$25.81	\$28.44	\$38.21	\$42.89	\$49.07	\$13.12	\$54.02	\$56.56
2018-10-16	\$36.74	\$32.23	\$32.66	\$29.61	\$28.61	\$26.50	\$28.92	\$39.45	\$43.71	\$49.79	\$13.43	\$55.13	\$57.61
2018-10-17	\$36.54	\$32.15	\$32.44	\$29.35	\$28.29	\$25.98	\$28.54	\$39.89	\$43.25	\$49.15	\$13.36	\$54.46	\$57.57
2018-10-18	\$36.03	\$31.72	\$31.94	\$28.89	\$27.71	\$25.15	\$27.77	\$38.59	\$42.65	\$47.52	\$13.08	\$52.78	\$56.53
2018-10-19	\$35.79	\$31.50	\$32.22	\$28.97	\$27.84	\$25.51	\$28.24	\$38.95	\$42.47	\$47.63	\$13.06	\$53.55	\$56.65
2018-10-22	\$35.60	\$31.48	\$32.03	\$28.72	\$27.70	\$25.31	\$27.76	\$39.78	\$42.41	\$46.83	\$13.03	\$55.26	\$56.30
2018-10-23	\$35.15	\$31.21	\$31.89	\$28.53	\$27.36	\$25.34	\$27.77	\$39.56	\$42.27	\$46.53	\$12.83	\$54.24	\$55.65
2018-10-24	\$34.86	\$30.27	\$31.14	\$27.70	\$26.40	\$24.41	\$26.99	\$37.94	\$41.63	\$45.26	\$12.49	\$52.22	\$53.87
2018-10-25	\$34.77	\$30.79	\$31.40	\$28.21	\$26.95	\$24.92	\$27.34	\$39.00	\$42.21	\$46.04	\$12.32	\$53.43	\$54.67
2018-10-26	\$34.62	\$30.32	\$31.20	\$28.05	\$26.78	\$24.93	\$27.40	\$40.04	\$42.24	\$45.88	\$12.30	\$52.51	\$53.97
2018-10-29	\$34.49	\$30.23	\$31.22	\$27.96	\$26.89	\$25.04	\$27.51	\$38.63	\$41.15	\$42.60	\$12.28	\$51.05	\$53.47
2018-10-30	\$34.59	\$30.83	\$31.47	\$28.12	\$27.04	\$25.28	\$27.67	\$40.39	\$41.21	\$42.44	\$12.14	\$51.86	\$54.31
2018-10-31	\$34.85	\$31.14	\$31.81	\$28.41	\$27.25	\$25.05	\$27.69	\$40.15	\$41.52	\$42.08	\$12.23	\$53.25	\$54.84
2018-11-01	\$35.64	\$31.53	\$32.44	\$28.74	\$27.60	\$25.54	\$28.19	\$41.05	\$43.29	\$43.84	\$12.24	\$55.98	\$54.71
2018-11-02	\$35.61	\$31.33	\$32.26	\$28.79	\$27.78	\$25.76	\$28.37	\$41.61	\$43.79	\$44.18	\$12.28	\$56.09	\$55.02
2018-11-05	\$35.77	\$31.50	\$32.44	\$28.79	\$27.67	\$25.62	\$28.33	\$41.24	\$43.75	\$45.45	\$12.37	\$55.93	\$54.82
2018-11-06	\$35.70	\$31.66	\$32.42	\$28.79	\$27.70	\$25.81	\$28.86	\$40.57	\$43.91	\$45.54	\$12.38	\$55.86	\$55.44
2018-11-07	\$36.10	\$32.30	\$32.90	\$29.19	\$28.03	\$26.20	\$29.11	\$40.37	\$44.04	\$45.70	\$12.85	\$57.24	\$56.02
2018-11-08	\$35.70	\$32.17	\$32.64	\$28.84	\$27.49	\$25.67	\$28.70	\$39.21	\$43.96	\$42.61	\$12.75	\$55.50	\$55.66
2018-11-09	\$35.35	\$31.82	\$32.38	\$28.69	\$27.48	\$25.45	\$28.84	\$39.46	\$43.07	\$42.74	\$12.72	\$53.94	\$55.10
2018-11-12	\$34.73	\$31.23	\$31.79	\$28.11	\$26.69	\$24.94	\$28.16	\$38.95	\$42.34	\$41.50	\$12.52	\$53.25	\$54.35
2018-11-13	\$34.65	\$31.17	\$31.99	\$28.31	\$27.10	\$25.07	\$28.45	\$38.32	\$42.14	\$40.58	\$12.33	\$54.56	\$54.15
2018-11-14	\$34.87	\$30.87	\$32.06	\$28.39	\$27.20	\$25.18	\$28.75	\$38.92	\$42.80	\$40.72	\$12.43	\$55.08	\$54.34
2018-11-15	\$35.64	\$31.08	\$31.87	\$28.45	\$27.30	\$25.22	\$28.76	\$39.87	\$43.60	\$40.24	\$12.66	\$56.40	\$54.66
2018-11-16	\$36.05	\$31.21	\$31.71	\$28.44	\$27.28	\$25.23	\$28.77	\$40.48	\$43.99	\$41.38	\$12.89	\$56.45	\$54.70
2018-11-19	\$35.95	\$30.61	\$31.60	\$28.16	\$26.95	\$25.11	\$28.56	\$39.91	\$43.78	\$41.18	\$12.74	\$55.25	\$54.46
2018-11-20	\$35.10	\$30.14	\$31.15	\$27.64	\$26.40	\$24.50	\$27.95	\$38.56	\$43.08	\$40.30	\$12.42	\$54.11	\$53.46
2018-11-21	\$35.45	\$30.32	\$31.67	\$27.90	\$26.85	\$24.82	\$28.18	\$39.40	\$43.60	\$40.36	\$12.31	\$55.40	\$54.28

2018-11-23	\$34.73	\$30.18	\$31.28	\$27.63	\$26.56	\$24.72	\$27.95	\$38.70	\$43.03	\$39.72	\$12.09	\$54.77	\$54.08
2018-11-26	\$34.86	\$30.70	\$31.79	\$27.99	\$27.06	\$25.43	\$28.61	\$37.42	\$43.03	\$37.76	\$12.11	\$56.06	\$54.81
2018-11-27	\$34.80	\$30.62	\$31.54	\$27.89	\$26.86	\$25.16	\$28.54	\$39.03	\$43.05	\$38.39	\$12.10	\$56.17	\$54.76
2018-11-28	\$35.39	\$31.31	\$31.95	\$28.30	\$27.23	\$25.60	\$29.00	\$39.81	\$43.46	\$40.10	\$12.07	\$57.69	\$55.48
2018-11-29	\$35.39	\$31.09	\$31.68	\$28.25	\$27.08	\$25.47	\$28.71	\$39.82	\$43.55	\$40.74	\$12.05	\$56.58	\$55.29
2018-11-30	\$35.29	\$31.25	\$31.43	\$28.08	\$26.84	\$25.39	\$28.50	\$39.80	\$43.04	\$40.33	\$12.18	\$57.48	\$55.34
2018-12-03	\$35.87	\$31.73	\$31.73	\$28.33	\$27.28	\$25.99	\$28.88	\$39.99	\$43.87	\$40.57	\$12.46	\$58.54	\$56.09
2018-12-04	\$35.86	\$30.73	\$31.05	\$27.65	\$26.48	\$25.14	\$28.02	\$39.28	\$43.36	\$39.89	\$12.51	\$57.42	\$54.02
2018-12-06	\$35.61	\$30.65	\$30.55	\$27.26	\$26.11	\$25.12	\$27.99	\$39.44	\$43.29	\$40.62	\$12.40	\$56.36	\$53.94
2018-12-07	\$35.56	\$29.84	\$30.30	\$27.04	\$25.66	\$24.75	\$27.73	\$38.66	\$42.84	\$40.60	\$12.30	\$55.36	\$53.54
2018-12-10	\$35.25	\$29.75	\$29.94	\$26.84	\$25.49	\$24.70	\$27.44	\$37.63	\$42.34	\$40.17	\$12.03	\$55.00	\$53.13
2018-12-11	\$35.44	\$29.72	\$30.03	\$26.95	\$25.61	\$24.67	\$27.40	\$38.05	\$42.06	\$40.08	\$12.01	\$55.45	\$53.09
2018-12-12	\$35.65	\$29.93	\$30.55	\$27.52	\$26.01	\$25.33	\$27.99	\$38.69	\$42.93	\$40.68	\$12.02	\$56.11	\$53.73
2018-12-13	\$35.71	\$29.83	\$30.54	\$27.45	\$25.95	\$25.30	\$28.21	\$38.83	\$43.06	\$40.36	\$11.96	\$56.36	\$53.57
2018-12-14	\$35.35	\$29.37	\$30.13	\$26.97	\$25.58	\$24.91	\$27.96	\$38.33	\$42.76	\$40.27	\$11.88	\$55.57	\$52.96
2018-12-17	\$35.54	\$28.59	\$29.85	\$26.77	\$25.38	\$24.71	\$27.92	\$37.84	\$42.07	\$39.66	\$11.76	\$54.47	\$52.54
2018-12-18	\$35.38	\$28.55	\$29.15	\$26.65	\$25.52	\$24.68	\$27.19	\$37.66	\$41.85	\$39.99	\$11.48	\$53.58	\$52.28
2018-12-19	\$34.87	\$28.12	\$29.04	\$26.43	\$25.32	\$24.64	\$27.15	\$36.89	\$41.50	\$40.12	\$11.40	\$52.49	\$51.51
2018-12-20	\$35.03	\$27.60	\$29.06	\$26.32	\$25.20	\$24.48	\$26.85	\$37.56	\$41.19	\$41.00	\$11.04	\$52.42	\$51.24
2018-12-21	\$34.81	\$27.25	\$28.82	\$25.97	\$24.95	\$23.85	\$26.42	\$37.14	\$41.00	\$40.42	\$10.82	\$52.06	\$49.66
2018-12-24	\$34.92	\$26.57	\$28.56	\$25.56	\$24.44	\$23.28	\$26.26	\$36.63	\$40.69	\$40.60	\$10.81	\$51.63	\$49.12
2018-12-26	\$35.32	\$27.75	\$29.27	\$26.26	\$25.11	\$23.89	\$26.70	\$37.30	\$41.85	\$41.00	\$11.07	\$52.95	\$50.05
2018-12-27	\$35.22	\$28.07	\$29.00	\$26.22	\$25.03	\$24.24	\$26.68	\$37.75	\$41.58	\$41.04	\$11.07	\$52.65	\$50.72
2018-12-28	\$35.19	\$27.60	\$29.38	\$26.32	\$25.23	\$24.12	\$26.75	\$38.08	\$41.33	\$41.14	\$11.20	\$52.78	\$50.78
2018-12-31	\$35.50	\$27.86	\$29.35	\$26.52	\$25.35	\$24.21	\$26.82	\$38.20	\$41.41	\$41.18	\$11.16	\$52.62	\$50.69
2019-01-02	\$35.70	\$27.82	\$29.33	\$26.29	\$25.16	\$24.15	\$26.87	\$40.64	\$41.63	\$42.32	\$11.38	\$52.33	\$51.04
2019-01-03	\$35.59	\$27.12	\$29.15	\$25.91	\$24.83	\$24.02	\$26.93	\$40.90	\$41.46	\$41.79	\$11.42	\$51.00	\$50.75
2019-01-04	\$36.14	\$27.99	\$29.96	\$26.61	\$25.76	\$24.90	\$27.61	\$41.82	\$42.85	\$42.65	\$11.76	\$53.07	\$52.47
2019-01-07	\$36.13	\$28.21	\$29.96	\$26.69	\$25.80	\$25.21	\$27.92	\$41.40	\$43.01	\$43.15	\$11.81	\$53.58	\$52.60

2019-01-08	\$36.12	\$28.52	\$30.14	\$26.99	\$25.96	\$25.21	\$28.06	\$41.90	\$43.33	\$43.86	\$12.08	\$53.99	\$52.85
2019-01-09	\$36.35	\$28.75	\$30.43	\$27.37	\$26.40	\$25.52	\$28.14	\$42.96	\$43.96	\$44.35	\$12.23	\$55.20	\$53.14
2019-01-10	\$36.51	\$28.88	\$30.56	\$27.33	\$26.39	\$25.73	\$28.21	\$42.90	\$44.53	\$44.45	\$12.21	\$55.65	\$53.46
2019-01-11	\$36.45	\$28.96	\$30.57	\$27.02	\$26.12	\$25.44	\$28.12	\$42.78	\$44.53	\$44.26	\$12.34	\$55.28	\$52.84
2019-01-14	\$36.67	\$28.75	\$30.37	\$26.91	\$26.08	\$25.39	\$28.02	\$42.98	\$44.78	\$44.47	\$12.36	\$54.62	\$52.65
2019-01-15	\$36.23	\$28.98	\$30.52	\$26.92	\$26.06	\$25.27	\$27.99	\$42.74	\$44.93	\$44.72	\$12.37	\$55.27	\$53.29
2019-01-16	\$36.54	\$29.09	\$30.43	\$26.97	\$26.08	\$25.57	\$28.10	\$42.67	\$45.38	\$45.21	\$12.45	\$56.09	\$53.55
2019-01-17	\$36.65	\$29.34	\$30.68	\$27.01	\$26.13	\$25.78	\$28.15	\$43.02	\$45.57	\$45.09	\$12.48	\$56.45	\$53.44
2019-01-18	\$36.60	\$29.75	\$30.96	\$27.29	\$26.69	\$25.83	\$28.53	\$43.20	\$45.89	\$45.07	\$12.49	\$57.15	\$54.15
2019-01-22	\$36.20	\$29.36	\$30.60	\$26.96	\$26.18	\$25.44	\$28.18	\$42.15	\$45.15	\$44.34	\$12.37	\$55.67	\$53.18
2019-01-23	\$36.25	\$29.32	\$30.82	\$27.14	\$26.38	\$25.56	\$28.67	\$43.29	\$45.19	\$44.68	\$12.43	\$56.08	\$53.03
2019-01-24	\$36.36	\$29.46	\$30.69	\$27.16	\$26.45	\$25.56	\$28.59	\$43.65	\$45.34	\$44.61	\$12.46	\$56.82	\$53.34
2019-01-25	\$36.90	\$29.78	\$30.90	\$27.61	\$26.95	\$25.97	\$28.85	\$43.82	\$45.59	\$44.81	\$12.49	\$57.84	\$53.92
2019-01-28	\$36.69	\$29.65	\$30.68	\$27.57	\$26.93	\$25.88	\$28.68	\$42.87	\$45.37	\$44.61	\$12.46	\$57.39	\$53.53
2019-01-29	\$37.08	\$29.70	\$30.89	\$27.76	\$26.86	\$25.97	\$28.74	\$43.44	\$45.47	\$44.81	\$12.55	\$57.37	\$53.58
2019-01-30	\$37.20	\$30.07	\$31.30	\$28.17	\$27.01	\$26.29	\$28.81	\$44.60	\$46.15	\$44.61	\$12.62	\$58.57	\$54.18
2019-01-31	\$37.76	\$30.31	\$31.49	\$28.15	\$26.79	\$26.17	\$28.66	\$45.37	\$46.72	\$45.00	\$12.95	\$59.31	\$54.28
2019-02-01	\$37.98	\$30.26	\$31.60	\$28.25	\$26.81	\$25.96	\$28.36	\$45.40	\$46.79	\$44.85	\$13.04	\$58.95	\$54.06
2019-02-04	\$38.13	\$30.41	\$31.69	\$28.24	\$26.82	\$26.14	\$28.29	\$45.46	\$47.36	\$45.09	\$13.12	\$59.12	\$54.18
2019-02-05	\$38.26	\$30.48	\$31.97	\$28.50	\$27.15	\$26.27	\$28.51	\$45.21	\$47.33	\$45.58	\$13.25	\$60.20	\$54.40
2019-02-06	\$38.21	\$30.52	\$31.85	\$28.36	\$26.92	\$26.34	\$28.43	\$43.33	\$46.84	\$45.23	\$13.24	\$59.58	\$53.95
2019-02-07	\$37.83	\$30.23	\$31.71	\$27.90	\$26.17	\$25.71	\$27.88	\$43.05	\$46.75	\$45.00	\$12.93	\$58.71	\$53.20
2019-02-08	\$37.94	\$30.24	\$31.69	\$27.76	\$25.91	\$25.59	\$27.74	\$43.07	\$46.03	\$44.43	\$12.89	\$58.77	\$52.73
2019-02-11	\$37.55	\$30.25	\$31.50	\$27.76	\$25.93	\$25.62	\$27.72	\$42.49	\$45.68	\$43.93	\$12.78	\$58.95	\$52.78
2019-02-12	\$37.54	\$30.64	\$31.73	\$28.14	\$26.36	\$26.00	\$28.01	\$43.70	\$45.70	\$43.98	\$12.92	\$59.17	\$53.71
2019-02-13	\$37.68	\$30.81	\$31.80	\$28.07	\$26.27	\$26.05	\$27.81	\$43.07	\$45.49	\$42.63	\$12.86	\$59.50	\$53.84
2019-02-14	\$37.70	\$30.79	\$31.80	\$28.13	\$26.15	\$25.96	\$27.82	\$44.25	\$45.37	\$43.36	\$12.78	\$59.21	\$53.80
2019-02-15	\$37.97	\$31.16	\$32.22	\$28.65	\$26.70	\$26.47	\$28.37	\$44.45	\$45.52	\$43.79	\$12.95	\$58.80	\$54.49
2019-02-19	\$38.53	\$31.19	\$32.39	\$28.86	\$26.82	\$26.57	\$28.61	\$44.15	\$46.09	\$43.96	\$12.99	\$59.54	\$54.58

2019-02-20	\$38.71	\$31.31	\$32.57	\$28.96	\$27.03	\$26.66	\$28.63	\$43.76	\$46.33	\$43.91	\$13.10	\$59.91	\$54.64
2019-02-21	\$38.29	\$31.18	\$32.36	\$28.93	\$26.95	\$26.50	\$28.62	\$43.55	\$46.60	\$44.17	\$12.97	\$59.78	\$54.56
2019-02-22	\$38.71	\$31.47	\$32.46	\$29.06	\$27.03	\$26.60	\$28.69	\$44.15	\$47.31	\$44.65	\$13.13	\$60.93	\$54.68
2019-02-25	\$38.58	\$31.44	\$32.48	\$29.15	\$27.11	\$26.77	\$28.70	\$43.92	\$47.51	\$44.77	\$13.32	\$62.05	\$54.99
2019-02-26	\$38.53	\$31.35	\$32.76	\$29.30	\$27.32	\$26.91	\$28.91	\$44.10	\$47.16	\$44.51	\$13.42	\$61.84	\$55.18
2019-02-27	\$38.60	\$31.28	\$32.72	\$29.19	\$27.17	\$26.90	\$28.81	\$44.16	\$46.32	\$44.09	\$13.39	\$61.11	\$54.89
2019-02-28	\$38.70	\$31.12	\$32.57	\$29.35	\$27.30	\$27.15	\$29.08	\$43.00	\$45.12	\$43.56	\$13.31	\$60.71	\$54.36
2019-03-01	\$38.29	\$31.31	\$32.63	\$29.58	\$27.60	\$27.32	\$29.11	\$42.35	\$44.82	\$43.29	\$13.27	\$61.21	\$54.52
2019-03-04	\$38.75	\$31.06	\$32.55	\$29.51	\$27.37	\$27.11	\$28.86	\$42.37	\$44.56	\$43.06	\$13.29	\$61.86	\$54.35
2019-03-05	\$38.59	\$31.00	\$32.73	\$29.46	\$27.44	\$27.10	\$28.82	\$42.69	\$44.64	\$42.86	\$13.25	\$62.86	\$54.40
2019-03-06	\$38.46	\$30.71	\$32.77	\$29.34	\$27.31	\$27.34	\$29.02	\$41.50	\$44.55	\$42.35	\$13.29	\$62.39	\$54.08
2019-03-07	\$38.35	\$30.45	\$32.42	\$28.88	\$26.79	\$26.82	\$28.42	\$41.18	\$43.94	\$41.77	\$13.19	\$60.68	\$53.44
2019-03-08	\$38.49	\$30.35	\$32.29	\$29.02	\$26.89	\$26.80	\$28.36	\$41.67	\$43.93	\$41.97	\$12.95	\$59.61	\$53.35
2019-03-11	\$38.70	\$30.79	\$32.57	\$29.17	\$27.13	\$26.98	\$28.53	\$43.07	\$44.39	\$42.45	\$13.12	\$61.14	\$53.93
2019-03-12	\$38.98	\$30.88	\$32.51	\$29.25	\$27.09	\$26.96	\$28.54	\$43.28	\$44.66	\$42.56	\$13.27	\$61.66	\$54.06
2019-03-13	\$39.22	\$31.08	\$32.96	\$29.56	\$27.32	\$27.22	\$28.86	\$43.75	\$44.41	\$42.67	\$13.43	\$61.42	\$54.27
2019-03-14	\$38.96	\$31.06	\$33.07	\$29.68	\$27.32	\$27.32	\$28.84	\$43.21	\$44.38	\$42.54	\$13.52	\$61.04	\$53.69
2019-03-15	\$39.43	\$31.15	\$33.42	\$30.08	\$27.58	\$27.54	\$29.30	\$43.69	\$44.82	\$43.16	\$13.63	\$61.83	\$54.31
2019-03-18	\$39.42	\$31.33	\$33.60	\$30.12	\$27.60	\$27.89	\$29.70	\$44.40	\$45.00	\$43.89	\$13.96	\$62.67	\$54.46
2019-03-19	\$39.55	\$31.29	\$33.67	\$30.19	\$27.86	\$28.04	\$29.80	\$44.35	\$44.69	\$43.82	\$14.08	\$62.87	\$54.48
2019-03-20	\$39.68	\$30.90	\$33.54	\$30.28	\$27.69	\$28.21	\$29.80	\$44.01	\$44.34	\$44.94	\$14.06	\$62.69	\$54.51
2019-03-21	\$39.73	\$31.40	\$33.48	\$30.11	\$27.50	\$28.25	\$29.60	\$43.00	\$44.04	\$45.07	\$14.19	\$62.78	\$54.87
2019-03-22	\$39.23	\$30.73	\$32.96	\$29.19	\$26.74	\$27.54	\$28.71	\$40.43	\$42.53	\$43.30	\$13.70	\$60.85	\$54.28
2019-03-25	\$39.08	\$30.67	\$32.91	\$29.19	\$26.82	\$27.62	\$28.71	\$40.94	\$42.72	\$43.92	\$13.68	\$60.95	\$54.31
2019-03-26	\$39.36	\$30.80	\$33.06	\$29.29	\$26.90	\$27.65	\$28.57	\$41.62	\$42.79	\$43.98	\$13.80	\$60.94	\$54.91
2019-03-27	\$39.13	\$30.71	\$33.15	\$29.37	\$26.89	\$27.77	\$28.83	\$39.28	\$42.49	\$43.49	\$13.45	\$60.89	\$54.72
2019-03-28	\$39.03	\$30.82	\$32.94	\$29.23	\$26.78	\$27.59	\$28.52	\$40.68	\$42.67	\$43.40	\$13.43	\$61.26	\$54.75
2019-03-29	\$39.29	\$31.03	\$33.01	\$29.47	\$26.92	\$27.79	\$28.61	\$40.99	\$43.18	\$43.59	\$13.58	\$62.43	\$54.72
2019-04-01	\$39.44	\$31.46	\$33.45	\$29.81	\$27.30	\$28.06	\$29.08	\$41.80	\$44.15	\$44.58	\$13.78	\$63.35	\$55.41

2019-04-02	\$39.47	\$31.39	\$33.64	\$29.88	\$27.46	\$28.01	\$29.11	\$41.77	\$43.35	\$44.16	\$13.67	\$63.12	\$55.03
2019-04-03	\$39.58	\$31.52	\$33.84	\$30.16	\$27.90	\$28.28	\$29.45	\$41.18	\$43.92	\$44.23	\$13.86	\$63.54	\$55.36
2019-04-04	\$39.85	\$31.63	\$33.72	\$30.18	\$27.91	\$28.18	\$29.63	\$42.10	\$44.19	\$44.92	\$13.86	\$64.19	\$55.33
2019-04-05	\$39.64	\$31.86	\$33.80	\$30.25	\$27.94	\$28.26	\$29.59	\$42.29	\$44.35	\$46.04	\$13.90	\$64.92	\$55.37
2019-04-08	\$40.04	\$31.84	\$33.86	\$30.27	\$27.90	\$28.37	\$29.49	\$42.65	\$44.49	\$46.75	\$14.06	\$64.85	\$55.24
2019-04-09	\$39.78	\$31.64	\$33.67	\$30.05	\$27.65	\$28.19	\$29.39	\$42.08	\$44.60	\$46.57	\$14.06	\$64.82	\$54.94
2019-04-10	\$39.50	\$31.84	\$33.78	\$30.18	\$27.85	\$28.12	\$29.39	\$42.25	\$44.63	\$46.61	\$14.10	\$64.96	\$54.95
2019-04-11	\$38.94	\$31.85	\$33.74	\$30.27	\$27.88	\$28.16	\$29.50	\$41.47	\$44.22	\$46.34	\$13.98	\$64.10	\$54.78
2019-04-12	\$39.30	\$31.91	\$33.94	\$30.56	\$28.22	\$28.43	\$29.79	\$40.32	\$44.66	\$46.51	\$13.88	\$65.03	\$55.06
2019-04-15	\$39.05	\$31.89	\$33.92	\$30.57	\$28.25	\$28.45	\$29.78	\$40.62	\$44.27	\$46.27	\$13.65	\$64.00	\$55.05
2019-04-16	\$39.09	\$31.69	\$33.87	\$30.64	\$28.40	\$28.39	\$29.71	\$40.79	\$44.44	\$46.64	\$13.48	\$64.72	\$55.27
2019-04-17	\$38.88	\$31.60	\$33.93	\$30.86	\$28.62	\$28.58	\$30.05	\$40.05	\$44.45	\$47.18	\$13.63	\$64.87	\$55.27
2019-04-18	\$38.54	\$31.71	\$33.81	\$30.78	\$28.57	\$28.36	\$29.81	\$40.46	\$44.44	\$47.13	\$13.71	\$64.89	\$55.35
2019-04-22	\$38.32	\$31.68	\$33.85	\$30.87	\$28.65	\$28.43	\$29.83	\$40.49	\$44.04	\$47.07	\$13.71	\$64.38	\$55.15
2019-04-23	\$38.07	\$32.03	\$33.86	\$30.76	\$28.59	\$28.34	\$29.66	\$41.14	\$43.61	\$46.64	\$13.74	\$64.41	\$55.46
2019-04-24	\$37.64	\$31.99	\$33.59	\$30.59	\$28.55	\$27.92	\$29.17	\$40.09	\$43.02	\$46.16	\$13.58	\$63.57	\$54.78
2019-04-25	\$37.36	\$31.84	\$33.47	\$30.47	\$28.47	\$27.99	\$29.43	\$41.08	\$42.83	\$46.41	\$13.45	\$63.26	\$54.90
2019-04-26	\$38.00	\$31.88	\$33.52	\$30.54	\$28.54	\$27.93	\$29.47	\$41.25	\$43.00	\$46.52	\$13.42	\$63.56	\$55.40
2019-04-29	\$37.88	\$31.88	\$33.59	\$30.76	\$28.71	\$28.10	\$29.69	\$41.23	\$42.67	\$46.22	\$13.30	\$63.72	\$55.62
2019-04-30	\$38.13	\$31.98	\$33.76	\$30.89	\$28.80	\$28.29	\$29.98	\$41.39	\$42.73	\$46.15	\$13.28	\$63.52	\$55.42
2019-05-01	\$37.54	\$31.67	\$33.38	\$30.69	\$28.61	\$28.06	\$29.73	\$40.70	\$42.18	\$45.69	\$13.22	\$63.41	\$55.23
2019-05-02	\$37.59	\$31.63	\$33.34	\$30.52	\$28.58	\$27.85	\$29.41	\$40.65	\$42.20	\$45.45	\$13.11	\$63.48	\$55.25
2019-05-03	\$37.84	\$31.90	\$33.87	\$30.72	\$28.95	\$28.14	\$29.53	\$41.19	\$42.37	\$46.00	\$13.11	\$64.58	\$55.96
2019-05-06	\$37.81	\$31.74	\$33.59	\$30.39	\$28.66	\$27.78	\$29.29	\$40.46	\$42.09	\$45.70	\$12.96	\$62.72	\$55.39
2019-05-07	\$37.76	\$31.22	\$32.93	\$29.72	\$28.03	\$27.34	\$28.73	\$40.12	\$41.25	\$44.96	\$12.71	\$60.81	\$54.38
2019-05-08	\$37.28	\$31.12	\$32.95	\$29.93	\$28.33	\$27.44	\$28.81	\$40.91	\$41.20	\$44.43	\$12.80	\$60.75	\$54.05
2019-05-09	\$37.09	\$30.98	\$32.88	\$29.76	\$28.14	\$27.29	\$28.63	\$40.29	\$41.15	\$44.14	\$12.92	\$59.74	\$53.70
2019-05-10	\$36.57	\$31.15	\$33.00	\$29.95	\$28.34	\$27.35	\$28.89	\$40.25	\$41.06	\$44.59	\$12.99	\$60.13	\$54.07
2019-05-13	\$36.10	\$30.33	\$32.36	\$29.24	\$27.52	\$26.78	\$28.37	\$38.84	\$40.05	\$43.93	\$12.64	\$57.84	\$52.85

2019-05-14	\$36.06	\$30.61	\$32.65	\$29.63	\$27.77	\$26.98	\$28.52	\$38.97	\$40.28	\$44.45	\$12.61	\$58.81	\$53.59
2019-05-15	\$35.96	\$30.70	\$32.72	\$29.80	\$28.04	\$27.00	\$28.67	\$38.44	\$40.29	\$44.53	\$12.61	\$59.35	\$53.67
2019-05-16	\$35.84	\$30.92	\$32.90	\$30.07	\$28.30	\$27.22	\$29.03	\$37.65	\$40.00	\$44.47	\$12.49	\$59.59	\$53.89
2019-05-17	\$35.66	\$30.71	\$32.68	\$29.91	\$28.05	\$27.10	\$28.88	\$36.99	\$39.69	\$44.23	\$12.44	\$57.68	\$53.69
2019-05-20	\$35.51	\$30.57	\$32.53	\$29.60	\$27.72	\$27.02	\$28.73	\$37.72	\$39.42	\$44.63	\$12.24	\$56.01	\$53.40
2019-05-21	\$35.85	\$30.90	\$32.71	\$29.81	\$27.97	\$27.19	\$28.87	\$39.26	\$39.58	\$44.58	\$12.26	\$56.86	\$53.77
2019-05-22	\$35.29	\$30.73	\$32.45	\$29.66	\$27.86	\$26.98	\$28.76	\$39.36	\$39.28	\$44.29	\$12.27	\$56.25	\$53.33
2019-05-23	\$34.96	\$30.29	\$32.04	\$29.26	\$27.50	\$26.54	\$28.51	\$39.09	\$38.95	\$43.98	\$11.97	\$55.20	\$52.93
2019-05-24	\$34.94	\$30.45	\$32.40	\$29.64	\$27.70	\$26.97	\$28.82	\$39.22	\$38.94	\$43.80	\$12.15	\$54.88	\$53.75
2019-05-28	\$34.72	\$30.10	\$32.08	\$29.29	\$27.47	\$26.56	\$28.60	\$40.28	\$38.06	\$43.30	\$11.97	\$55.31	\$53.30
2019-05-29	\$34.78	\$29.90	\$31.82	\$29.03	\$27.14	\$26.34	\$28.35	\$40.92	\$38.48	\$43.91	\$12.17	\$55.48	\$53.05
2019-05-30	\$34.91	\$29.94	\$31.93	\$29.20	\$27.28	\$26.17	\$28.62	\$41.36	\$38.69	\$44.54	\$12.20	\$55.45	\$53.29
2019-05-31	\$35.01	\$29.55	\$31.69	\$29.00	\$26.92	\$25.94	\$28.14	\$41.65	\$38.52	\$42.92	\$12.12	\$55.33	\$52.72
2019-06-03	\$35.37	\$29.69	\$31.76	\$29.22	\$27.13	\$26.18	\$28.33	\$41.96	\$39.66	\$42.67	\$12.23	\$55.68	\$53.03
2019-06-04	\$35.44	\$30.35	\$32.13	\$29.59	\$27.67	\$26.85	\$28.82	\$42.56	\$40.13	\$43.46	\$12.51	\$55.66	\$53.64
2019-06-05	\$35.64	\$30.58	\$32.10	\$29.66	\$27.57	\$26.65	\$28.77	\$41.56	\$39.85	\$43.74	\$12.37	\$55.18	\$53.67
2019-06-06	\$35.81	\$30.72	\$32.36	\$29.68	\$27.62	\$26.86	\$28.96	\$42.22	\$39.53	\$43.41	\$12.41	\$55.21	\$53.73
2019-06-07	\$36.51	\$31.00	\$32.75	\$30.31	\$27.87	\$27.18	\$29.31	\$42.60	\$39.77	\$43.57	\$12.65	\$55.82	\$54.38
2019-06-10	\$36.39	\$31.18	\$32.80	\$30.38	\$27.91	\$27.28	\$29.38	\$42.27	\$40.02	\$44.86	\$12.76	\$56.81	\$54.63
2019-06-11	\$36.62	\$31.15	\$32.97	\$30.57	\$28.10	\$27.47	\$29.40	\$43.35	\$40.80	\$45.10	\$12.77	\$57.61	\$54.81
2019-06-12	\$36.47	\$31.10	\$32.72	\$30.28	\$27.90	\$27.14	\$29.16	\$42.78	\$40.39	\$44.92	\$12.82	\$56.54	\$54.20
2019-06-13	\$36.46	\$31.28	\$32.76	\$30.27	\$28.00	\$27.38	\$29.13	\$43.21	\$40.47	\$44.67	\$12.80	\$56.65	\$54.14
2019-06-14	\$36.41	\$31.14	\$32.48	\$30.05	\$27.69	\$27.25	\$28.88	\$42.24	\$39.90	\$44.34	\$12.76	\$55.99	\$54.00
2019-06-17	\$35.59	\$30.99	\$31.58	\$29.46	\$26.93	\$26.38	\$28.35	\$41.71	\$39.16	\$43.28	\$12.56	\$55.98	\$53.67
2019-06-18	\$35.91	\$31.33	\$31.96	\$30.05	\$27.42	\$26.97	\$28.65	\$42.81	\$39.54	\$43.66	\$12.77	\$57.80	\$53.99
2019-06-19	\$35.87	\$31.46	\$32.06	\$30.27	\$27.50	\$27.12	\$28.77	\$43.30	\$39.72	\$44.03	\$12.89	\$58.37	\$54.47
2019-06-20	\$36.69	\$31.71	\$32.29	\$30.54	\$27.79	\$27.51	\$28.89	\$44.18	\$40.28	\$44.57	\$13.23	\$59.33	\$55.00
2019-06-21	\$36.81	\$31.60	\$32.15	\$30.47	\$27.76	\$27.62	\$28.99	\$44.37	\$40.34	\$44.07	\$13.12	\$59.00	\$54.46
2019-06-24	\$37.11	\$31.52	\$32.25	\$30.57	\$27.75	\$27.70	\$29.02	\$44.38	\$40.77	\$44.08	\$13.16	\$58.99	\$54.46

2019-06-25	\$36.71	\$31.26	\$32.12	\$30.44	\$27.54	\$27.40	\$28.84	\$43.20	\$40.68	\$43.96	\$13.23	\$58.05	\$54.22
2019-06-26	\$37.01	\$31.30	\$32.15	\$30.40	\$27.66	\$27.32	\$28.81	\$43.55	\$40.81	\$44.22	\$13.22	\$58.90	\$54.14
2019-06-27	\$37.04	\$31.47	\$32.09	\$30.43	\$27.75	\$27.38	\$28.76	\$43.69	\$40.63	\$43.55	\$13.27	\$59.48	\$54.36
2019-06-28	\$37.04	\$31.76	\$32.32	\$30.65	\$28.05	\$27.55	\$28.91	\$43.72	\$40.86	\$43.38	\$13.27	\$59.45	\$54.58
2019-07-01	\$37.07	\$31.97	\$32.48	\$30.67	\$28.12	\$27.37	\$29.02	\$43.88	\$40.68	\$43.86	\$13.34	\$60.64	\$55.36
2019-07-02	\$37.21	\$31.98	\$32.60	\$30.69	\$28.14	\$27.58	\$29.08	\$43.48	\$40.43	\$43.89	\$13.14	\$60.61	\$55.53
2019-07-03	\$37.23	\$32.25	\$32.78	\$30.97	\$28.37	\$28.28	\$29.41	\$43.88	\$40.44	\$43.98	\$13.10	\$60.39	\$55.69
2019-07-05	\$37.37	\$32.24	\$32.42	\$30.66	\$28.07	\$28.16	\$29.12	\$45.24	\$40.34	\$44.10	\$13.38	\$59.65	\$55.45
2019-07-08	\$37.28	\$32.10	\$32.33	\$30.54	\$27.89	\$28.06	\$28.86	\$45.57	\$40.26	\$44.54	\$13.29	\$58.91	\$55.13
2019-07-09	\$37.15	\$32.08	\$32.16	\$30.50	\$27.79	\$28.05	\$28.82	\$46.02	\$40.04	\$43.16	\$13.30	\$58.76	\$54.64
2019-07-10	\$37.38	\$32.15	\$32.26	\$30.61	\$27.73	\$28.43	\$28.91	\$46.73	\$40.38	\$43.16	\$13.47	\$58.92	\$54.97
2019-07-11	\$37.34	\$32.24	\$32.27	\$30.48	\$27.63	\$28.56	\$29.11	\$46.57	\$40.72	\$43.56	\$13.46	\$58.64	\$55.07
2019-07-12	\$37.53	\$32.60	\$32.26	\$30.62	\$27.63	\$28.59	\$29.09	\$46.33	\$40.70	\$43.51	\$13.50	\$58.91	\$55.09
2019-07-15	\$37.42	\$32.56	\$32.24	\$30.66	\$27.80	\$28.53	\$29.11	\$45.89	\$40.79	\$44.07	\$13.55	\$59.46	\$55.13
2019-07-16	\$37.62	\$32.47	\$32.06	\$30.62	\$27.71	\$28.36	\$29.16	\$45.72	\$40.54	\$43.65	\$13.65	\$59.40	\$54.72
2019-07-17	\$37.75	\$32.22	\$32.00	\$30.48	\$27.50	\$28.19	\$28.87	\$45.97	\$40.31	\$43.26	\$13.64	\$59.25	\$54.67
2019-07-18	\$37.92	\$32.32	\$32.16	\$30.56	\$27.45	\$28.45	\$28.89	\$46.67	\$40.36	\$42.83	\$13.51	\$59.33	\$54.53
2019-07-19	\$37.80	\$32.20	\$32.11	\$30.41	\$27.28	\$27.61	\$28.49	\$46.02	\$39.90	\$42.46	\$13.59	\$59.33	\$54.67
2019-07-22	\$37.75	\$32.20	\$32.10	\$30.45	\$27.40	\$27.82	\$28.45	\$46.19	\$39.66	\$42.02	\$13.57	\$59.09	\$54.75
2019-07-23	\$37.54	\$32.45	\$32.22	\$30.65	\$27.74	\$28.05	\$28.72	\$45.70	\$39.27	\$41.39	\$13.50	\$59.75	\$55.19
2019-07-24	\$37.82	\$32.62	\$32.10	\$30.62	\$27.86	\$28.15	\$28.85	\$45.94	\$39.09	\$41.92	\$13.43	\$60.14	\$55.26
2019-07-25	\$37.60	\$32.46	\$31.82	\$30.28	\$27.42	\$27.83	\$28.61	\$45.09	\$38.90	\$41.72	\$13.39	\$59.80	\$54.67
2019-07-26	\$37.27	\$32.56	\$32.04	\$30.43	\$27.54	\$27.73	\$28.42	\$45.44	\$39.18	\$41.49	\$13.29	\$59.92	\$54.81
2019-07-29	\$37.03	\$32.55	\$32.14	\$30.51	\$27.59	\$27.64	\$28.47	\$45.49	\$38.93	\$42.17	\$13.27	\$59.56	\$54.74
2019-07-30	\$36.60	\$32.48	\$31.78	\$29.96	\$26.98	\$27.12	\$27.67	\$45.17	\$38.84	\$41.85	\$13.03	\$59.11	\$54.39
2019-07-31	\$35.87	\$32.12	\$31.54	\$29.79	\$26.82	\$27.03	\$27.44	\$44.50	\$38.47	\$41.27	\$13.10	\$58.47	\$54.35
2019-08-01	\$35.44	\$31.74	\$31.17	\$29.65	\$26.80	\$26.93	\$27.31	\$44.13	\$37.98	\$40.75	\$12.74	\$56.66	\$54.34
2019-08-02	\$34.87	\$31.36	\$30.71	\$29.18	\$26.52	\$26.83	\$27.28	\$43.92	\$37.27	\$40.23	\$12.54	\$56.00	\$54.06
2019-08-05	\$34.13	\$30.49	\$29.88	\$28.57	\$25.98	\$26.50	\$26.98	\$42.14	\$36.03	\$39.16	\$12.12	\$53.48	\$52.72

2019-08-06	\$34.19	\$30.91	\$29.96	\$28.80	\$26.05	\$26.55	\$27.13	\$42.93	\$36.23	\$39.58	\$12.23	\$54.17	\$53.39
2019-08-07	\$34.51	\$30.98	\$30.06	\$29.04	\$26.22	\$26.46	\$27.25	\$43.19	\$36.56	\$40.13	\$12.21	\$54.65	\$53.76
2019-08-08	\$34.89	\$31.53	\$30.35	\$29.32	\$26.41	\$26.32	\$27.30	\$44.27	\$37.32	\$40.56	\$12.59	\$55.38	\$54.14
2019-08-09	\$34.22	\$31.19	\$30.09	\$29.29	\$26.27	\$25.93	\$27.19	\$43.99	\$37.40	\$40.51	\$12.63	\$54.61	\$53.57
2019-08-12	\$33.85	\$30.78	\$29.88	\$29.04	\$26.01	\$25.87	\$26.82	\$42.59	\$36.43	\$39.49	\$12.61	\$54.04	\$53.06
2019-08-13	\$33.83	\$31.22	\$30.10	\$29.37	\$26.26	\$26.21	\$26.94	\$43.44	\$37.03	\$39.61	\$12.82	\$55.15	\$53.66
2019-08-14	\$33.07	\$30.25	\$29.40	\$28.44	\$25.41	\$25.27	\$26.11	\$41.35	\$36.19	\$38.23	\$12.22	\$53.57	\$52.36
2019-08-15	\$33.16	\$30.34	\$29.51	\$28.44	\$25.25	\$25.30	\$26.19	\$41.36	\$36.19	\$38.43	\$12.27	\$54.33	\$52.86
2019-08-16	\$33.33	\$30.81	\$29.80	\$28.73	\$25.60	\$25.66	\$26.61	\$41.65	\$36.51	\$39.12	\$12.51	\$55.37	\$53.41
2019-08-19	\$33.31	\$31.18	\$30.01	\$29.04	\$25.84	\$26.04	\$26.63	\$40.75	\$36.31	\$38.82	\$12.53	\$56.41	\$53.40
2019-08-20	\$33.35	\$30.88	\$29.81	\$28.94	\$25.71	\$25.84	\$26.35	\$40.89	\$36.25	\$39.07	\$12.62	\$56.32	\$53.29
2019-08-21	\$33.25	\$31.25	\$30.05	\$29.32	\$26.11	\$26.27	\$26.56	\$41.97	\$36.23	\$39.73	\$12.64	\$56.71	\$53.47
2019-08-22	\$33.13	\$31.26	\$30.13	\$29.16	\$26.02	\$26.27	\$26.70	\$40.91	\$35.75	\$39.33	\$12.46	\$56.10	\$53.39
2019-08-23	\$33.08	\$30.48	\$29.79	\$28.77	\$25.69	\$25.76	\$26.38	\$39.51	\$34.92	\$38.97	\$12.17	\$54.76	\$52.79
2019-08-26	\$32.84	\$30.68	\$29.83	\$29.04	\$25.92	\$26.25	\$26.62	\$38.89	\$34.59	\$39.30	\$12.18	\$55.35	\$53.56
2019-08-27	\$33.14	\$30.52	\$29.92	\$29.05	\$25.95	\$26.52	\$26.62	\$39.03	\$34.87	\$39.53	\$12.17	\$55.50	\$53.39
2019-08-28	\$33.47	\$30.74	\$29.96	\$29.00	\$25.89	\$26.53	\$26.66	\$39.46	\$34.44	\$39.80	\$12.14	\$55.61	\$53.37
2019-08-29	\$33.54	\$31.19	\$30.17	\$29.38	\$26.19	\$27.02	\$26.75	\$40.29	\$34.86	\$40.62	\$12.35	\$56.24	\$53.75
2019-08-30	\$33.86	\$31.28	\$30.34	\$29.49	\$26.25	\$26.91	\$26.72	\$40.99	\$35.69	\$41.51	\$12.38	\$56.42	\$53.92
2019-09-03	\$33.81	\$31.07	\$30.32	\$29.31	\$26.14	\$27.03	\$26.66	\$39.93	\$35.11	\$40.96	\$12.31	\$56.23	\$53.95
2019-09-04	\$34.15	\$31.41	\$30.83	\$29.82	\$26.54	\$27.49	\$26.95	\$41.19	\$35.32	\$41.86	\$12.61	\$57.22	\$54.25
2019-09-05	\$34.47	\$31.90	\$30.91	\$30.10	\$26.75	\$27.65	\$27.23	\$41.61	\$36.17	\$42.30	\$12.73	\$58.25	\$54.64
2019-09-06	\$34.45	\$31.98	\$30.98	\$30.08	\$26.86	\$27.61	\$27.25	\$42.13	\$36.50	\$42.70	\$12.62	\$58.28	\$54.83
2019-09-09	\$34.06	\$32.12	\$30.90	\$30.10	\$27.04	\$27.69	\$27.37	\$42.13	\$36.77	\$42.58	\$12.78	\$58.58	\$55.19
2019-09-10	\$34.16	\$32.26	\$31.09	\$30.06	\$27.16	\$27.66	\$27.65	\$42.01	\$36.77	\$42.49	\$12.79	\$58.35	\$55.35
2019-09-11	\$34.50	\$32.51	\$31.32	\$30.18	\$27.24	\$27.49	\$27.58	\$42.61	\$37.19	\$42.69	\$12.96	\$58.94	\$55.84
2019-09-12	\$34.69	\$32.48	\$31.34	\$30.44	\$27.41	\$27.97	\$27.83	\$42.99	\$37.83	\$42.80	\$13.04	\$59.38	\$56.21
2019-09-13	\$35.07	\$32.50	\$31.63	\$30.51	\$27.51	\$28.01	\$27.97	\$42.28	\$38.28	\$43.15	\$13.07	\$59.82	\$56.87
2019-09-16	\$34.95	\$32.48	\$31.43	\$30.09	\$27.21	\$27.57	\$27.59	\$42.35	\$38.20	\$43.05	\$13.13	\$59.19	\$56.57

2019-09-17	\$34.86	\$32.53	\$31.60	\$30.33	\$27.32	\$27.54	\$27.61	\$42.86	\$38.19	\$43.81	\$13.07	\$59.05	\$56.78
2019-09-18	\$34.58	\$32.49	\$31.52	\$30.31	\$27.29	\$27.72	\$27.68	\$42.61	\$38.11	\$43.37	\$13.09	\$58.76	\$56.66
2019-09-19	\$34.57	\$32.44	\$31.69	\$30.43	\$27.33	\$27.78	\$27.82	\$41.92	\$38.05	\$43.29	\$13.06	\$58.53	\$57.08
2019-09-20	\$34.61	\$32.27	\$31.56	\$30.41	\$27.18	\$27.64	\$27.81	\$42.20	\$37.97	\$43.73	\$12.95	\$58.20	\$56.95
2019-09-23	\$34.62	\$32.32	\$31.51	\$30.21	\$27.02	\$27.55	\$27.61	\$41.84	\$37.58	\$43.60	\$12.89	\$57.83	\$56.89
2019-09-24	\$34.51	\$31.89	\$31.27	\$30.08	\$26.84	\$27.40	\$27.61	\$41.67	\$37.31	\$43.16	\$12.87	\$56.85	\$56.97
2019-09-25	\$34.59	\$32.05	\$31.15	\$29.89	\$26.66	\$27.31	\$27.52	\$41.96	\$37.10	\$43.01	\$12.86	\$57.18	\$57.20
2019-09-26	\$34.93	\$31.95	\$31.40	\$29.95	\$26.74	\$27.50	\$27.62	\$42.26	\$37.28	\$42.85	\$12.87	\$56.78	\$57.30
2019-09-27	\$35.01	\$31.79	\$31.39	\$29.93	\$26.82	\$27.34	\$27.65	\$42.23	\$37.65	\$42.53	\$12.82	\$55.54	\$56.48
2019-09-30	\$35.06	\$31.92	\$31.43	\$30.14	\$26.91	\$27.57	\$27.84	\$42.13	\$37.44	\$42.72	\$12.69	\$56.08	\$56.74
2019-10-01	\$33.98	\$31.45	\$31.08	\$29.78	\$26.65	\$27.29	\$27.64	\$41.68	\$37.24	\$42.36	\$12.61	\$55.78	\$56.49
2019-10-02	\$33.79	\$30.91	\$30.19	\$28.98	\$26.05	\$26.64	\$27.03	\$40.78	\$37.11	\$41.76	\$12.52	\$55.77	\$55.79
2019-10-03	\$34.00	\$31.11	\$30.36	\$29.25	\$26.18	\$26.82	\$27.13	\$41.20	\$37.55	\$42.34	\$12.75	\$56.75	\$56.07
2019-10-04	\$34.34	\$31.50	\$30.59	\$29.50	\$26.44	\$26.95	\$27.27	\$42.11	\$37.99	\$43.64	\$12.90	\$56.69	\$56.72
2019-10-07	\$34.07	\$31.37	\$30.56	\$29.47	\$26.40	\$27.05	\$27.33	\$40.87	\$37.66	\$43.00	\$12.68	\$56.28	\$56.36
2019-10-08	\$34.03	\$30.86	\$30.17	\$29.12	\$26.11	\$26.70	\$26.98	\$40.58	\$37.06	\$42.49	\$12.68	\$55.37	\$56.03
2019-10-09	\$33.69	\$31.12	\$30.29	\$29.47	\$26.41	\$26.98	\$27.22	\$41.13	\$37.47	\$42.62	\$12.72	\$56.13	\$56.52
2019-10-10	\$33.92	\$31.37	\$30.73	\$29.82	\$26.57	\$27.35	\$27.54	\$41.17	\$37.89	\$43.49	\$12.78	\$56.90	\$56.45
2019-10-11	\$34.67	\$31.82	\$31.64	\$30.34	\$27.29	\$27.82	\$28.12	\$42.23	\$38.83	\$44.12	\$12.90	\$58.01	\$57.15
2019-10-14	\$34.67	\$31.78	\$31.38	\$30.27	\$27.34	\$27.78	\$28.08	\$42.13	\$38.65	\$44.17	\$12.87	\$57.80	\$56.90
2019-10-15	\$34.62	\$32.08	\$31.83	\$30.64	\$27.68	\$28.09	\$28.45	\$41.80	\$38.77	\$44.24	\$12.85	\$58.49	\$57.75
2019-10-16	\$34.70	\$31.95	\$31.79	\$30.67	\$27.84	\$28.23	\$28.63	\$42.36	\$38.65	\$44.57	\$12.77	\$58.59	\$57.63
2019-10-17	\$34.33	\$32.03	\$32.01	\$30.76	\$28.00	\$28.28	\$28.66	\$42.04	\$39.13	\$44.44	\$12.79	\$58.68	\$57.48
2019-10-18	\$34.57	\$31.97	\$32.00	\$30.68	\$28.09	\$28.40	\$28.78	\$42.42	\$39.17	\$44.33	\$12.89	\$57.73	\$57.37
2019-10-21	\$34.43	\$32.29	\$32.14	\$30.69	\$28.34	\$28.55	\$28.89	\$42.80	\$37.17	\$44.80	\$12.80	\$58.38	\$57.78
2019-10-22	\$34.59	\$32.34	\$32.10	\$30.53	\$28.21	\$28.35	\$28.77	\$43.85	\$36.81	\$44.67	\$13.02	\$58.00	\$57.85
2019-10-23	\$34.82	\$32.40	\$32.40	\$30.70	\$28.40	\$28.36	\$28.92	\$44.46	\$36.44	\$44.78	\$13.16	\$57.77	\$58.09
2019-10-24	\$34.85	\$32.51	\$32.52	\$30.81	\$28.46	\$28.43	\$28.84	\$44.13	\$36.98	\$44.80	\$13.08	\$57.95	\$58.12
2019-10-25	\$35.03	\$32.79	\$32.46	\$30.92	\$28.41	\$28.53	\$28.84	\$44.67	\$36.43	\$44.76	\$13.25	\$58.59	\$58.09

2019-10-28	\$35.14	\$33.00	\$32.60	\$31.06	\$28.59	\$28.66	\$28.96	\$45.13	\$36.65	\$45.13	\$13.31	\$59.32	\$58.26
2019-10-29	\$35.25	\$33.02	\$32.49	\$31.17	\$28.51	\$28.74	\$28.88	\$44.62	\$35.98	\$44.97	\$13.34	\$58.68	\$58.51
2019-10-30	\$35.13	\$32.97	\$32.72	\$31.37	\$28.62	\$28.77	\$28.66	\$45.28	\$34.76	\$44.88	\$13.24	\$58.69	\$58.67
2019-10-31	\$35.36	\$32.80	\$32.53	\$31.23	\$28.55	\$28.87	\$28.60	\$44.60	\$34.53	\$44.31	\$13.27	\$58.47	\$58.68
2019-11-01	\$36.07	\$33.13	\$32.68	\$31.43	\$28.78	\$29.22	\$28.80	\$45.09	\$35.21	\$45.14	\$13.58	\$59.37	\$59.26
2019-11-04	\$35.88	\$33.33	\$32.82	\$31.61	\$29.07	\$29.51	\$28.99	\$45.02	\$34.95	\$45.03	\$13.68	\$60.36	\$59.66
2019-11-05	\$35.56	\$33.35	\$32.88	\$31.54	\$28.95	\$29.37	\$28.89	\$45.25	\$33.94	\$44.59	\$13.72	\$60.70	\$59.74
2019-11-06	\$35.42	\$33.31	\$32.85	\$31.63	\$28.97	\$29.30	\$28.76	\$44.34	\$33.37	\$45.09	\$13.65	\$60.71	\$59.61
2019-11-07	\$35.51	\$33.50	\$32.79	\$31.65	\$29.11	\$29.32	\$28.77	\$44.53	\$33.64	\$45.45	\$13.62	\$61.44	\$59.96
2019-11-08	\$34.85	\$33.55	\$32.60	\$31.68	\$29.02	\$29.50	\$28.67	\$43.02	\$33.51	\$45.02	\$13.54	\$61.13	\$59.93
2019-11-11	\$34.73	\$33.51	\$32.60	\$31.73	\$28.93	\$29.45	\$28.69	\$43.62	\$32.66	\$44.98	\$13.48	\$60.39	\$59.78
2019-11-12	\$34.41	\$33.53	\$32.66	\$31.71	\$28.94	\$29.69	\$28.27	\$42.79	\$31.09	\$43.99	\$13.24	\$60.00	\$59.91
2019-11-13	\$34.32	\$33.47	\$32.62	\$31.65	\$28.88	\$29.37	\$27.92	\$42.40	\$30.74	\$43.78	\$12.99	\$59.14	\$59.70
2019-11-14	\$34.19	\$33.53	\$32.56	\$31.71	\$28.82	\$29.35	\$27.86	\$42.48	\$30.05	\$44.08	\$12.89	\$59.05	\$59.44
2019-11-15	\$34.63	\$33.82	\$32.64	\$31.93	\$29.04	\$29.48	\$28.11	\$43.02	\$33.27	\$44.70	\$13.16	\$59.17	\$59.79
2019-11-18	\$34.86	\$33.83	\$32.74	\$31.98	\$29.01	\$29.44	\$28.22	\$42.21	\$33.27	\$44.35	\$13.05	\$59.30	\$59.84
2019-11-19	\$34.72	\$33.76	\$32.77	\$31.86	\$29.04	\$29.28	\$28.24	\$42.00	\$32.81	\$44.36	\$12.91	\$59.91	\$59.65
2019-11-20	\$34.59	\$33.67	\$32.44	\$31.70	\$28.85	\$29.18	\$28.09	\$41.96	\$32.80	\$44.19	\$12.91	\$59.30	\$59.47
2019-11-21	\$34.57	\$33.63	\$32.41	\$31.67	\$28.88	\$29.23	\$28.13	\$42.77	\$32.20	\$44.14	\$12.89	\$59.34	\$59.53
2019-11-22	\$34.47	\$33.69	\$32.60	\$31.70	\$28.87	\$29.12	\$28.19	\$43.16	\$31.80	\$44.47	\$13.01	\$59.43	\$59.57
2019-11-25	\$34.55	\$33.94	\$33.05	\$31.83	\$29.00	\$29.25	\$28.35	\$42.71	\$31.62	\$44.41	\$12.90	\$60.47	\$59.98
2019-11-26	\$34.45	\$34.05	\$32.97	\$31.90	\$29.06	\$29.35	\$28.30	\$42.10	\$30.96	\$43.73	\$12.60	\$60.60	\$59.88
2019-11-27	\$34.33	\$34.14	\$33.19	\$31.81	\$29.08	\$29.16	\$28.39	\$42.10	\$30.35	\$43.77	\$12.48	\$60.82	\$60.00
2019-11-29	\$34.35	\$33.96	\$32.93	\$31.66	\$28.94	\$28.89	\$28.37	\$42.47	\$29.99	\$43.52	\$12.52	\$59.66	\$59.43
2019-12-02	\$34.46	\$33.65	\$32.70	\$31.34	\$28.67	\$28.47	\$27.98	\$43.07	\$30.20	\$43.10	\$12.54	\$59.49	\$59.31
2019-12-03	\$34.15	\$33.40	\$32.31	\$31.17	\$28.78	\$28.59	\$28.03	\$43.12	\$30.31	\$42.82	\$12.47	\$59.18	\$59.54
2019-12-04	\$34.21	\$33.56	\$32.64	\$31.40	\$29.00	\$28.91	\$28.35	\$43.61	\$31.36	\$43.07	\$12.80	\$59.44	\$60.21
2019-12-05	\$34.40	\$33.65	\$32.52	\$31.49	\$28.88	\$28.80	\$28.23	\$44.01	\$32.55	\$43.21	\$12.90	\$60.01	\$59.97
2019-12-06	\$34.42	\$33.94	\$32.90	\$31.69	\$28.95	\$28.91	\$28.53	\$44.71	\$32.60	\$43.00	\$13.02	\$60.50	\$60.66

2019-12-09	\$34.46	\$33.80	\$32.92	\$31.46	\$28.76	\$28.51	\$28.44	\$44.59	\$32.71	\$43.12	\$13.08	\$59.98	\$60.32
2019-12-10	\$34.43	\$33.75	\$32.93	\$31.63	\$28.83	\$28.81	\$28.41	\$44.41	\$32.64	\$43.85	\$13.07	\$60.33	\$60.29
2019-12-11	\$34.77	\$33.84	\$32.99	\$31.78	\$29.08	\$28.98	\$28.69	\$44.92	\$33.16	\$44.62	\$13.18	\$61.33	\$60.42
2019-12-12	\$34.92	\$34.10	\$33.20	\$32.01	\$29.33	\$29.42	\$29.10	\$45.80	\$33.53	\$45.15	\$13.35	\$62.34	\$60.57
2019-12-13	\$35.20	\$34.10	\$34.10	\$32.12	\$29.41	\$29.25	\$29.22	\$45.69	\$33.94	\$45.75	\$13.40	\$62.11	\$60.73
2019-12-16	\$34.85	\$34.18	\$34.20	\$32.43	\$29.70	\$29.25	\$28.85	\$45.56	\$33.96	\$45.68	\$13.41	\$62.43	\$60.29
2019-12-17	\$34.94	\$34.16	\$33.60	\$32.35	\$29.46	\$29.48	\$28.86	\$45.53	\$33.69	\$45.71	\$13.30	\$63.13	\$60.16
2019-12-18	\$35.23	\$34.15	\$33.64	\$32.21	\$29.26	\$29.46	\$28.80	\$46.19	\$33.51	\$46.31	\$13.41	\$63.41	\$59.92
2019-12-19	\$35.55	\$34.25	\$33.54	\$32.31	\$29.27	\$29.58	\$28.82	\$46.55	\$33.58	\$46.06	\$13.60	\$63.25	\$59.86
2019-12-20	\$36.30	\$34.47	\$33.52	\$32.35	\$29.30	\$29.74	\$28.82	\$46.25	\$33.82	\$45.84	\$13.59	\$63.54	\$59.82
2019-12-23	\$36.39	\$34.44	\$33.60	\$32.49	\$29.33	\$29.70	\$28.82	\$46.70	\$33.46	\$45.67	\$13.70	\$63.58	\$59.77
2019-12-24	\$36.59	\$34.42	\$33.68	\$32.42	\$29.31	\$29.59	\$28.77	\$46.66	\$33.49	\$45.51	\$13.91	\$63.62	\$59.53
2019-12-26	\$37.03	\$34.52	\$33.86	\$32.61	\$29.41	\$29.68	\$28.94	\$47.69	\$33.57	\$45.80	\$13.90	\$64.19	\$59.69
2019-12-27	\$36.97	\$34.49	\$33.98	\$32.67	\$29.56	\$29.62	\$29.08	\$47.31	\$33.46	\$45.90	\$13.88	\$64.27	\$59.58
2019-12-30	\$37.02	\$34.36	\$33.81	\$32.52	\$29.21	\$29.38	\$28.94	\$47.20	\$33.10	\$44.98	\$13.89	\$64.00	\$59.05
2019-12-31	\$37.05	\$34.48	\$34.10	\$32.71	\$29.40	\$29.50	\$28.92	\$47.45	\$33.33	\$45.03	\$13.90	\$64.09	\$59.24
2020-01-02	\$37.24	\$34.61	\$34.15	\$32.94	\$29.88	\$29.90	\$29.30	\$48.41	\$34.10	\$46.26	\$13.99	\$66.23	\$59.86
2020-01-03	\$36.94	\$34.35	\$33.84	\$32.60	\$29.31	\$29.49	\$28.87	\$47.99	\$33.87	\$45.92	\$14.05	\$64.99	\$59.20
2020-01-06	\$36.98	\$34.31	\$34.05	\$32.75	\$29.35	\$29.61	\$29.01	\$47.25	\$33.74	\$46.13	\$14.08	\$64.88	\$59.41
2020-01-07	\$36.83	\$34.33	\$33.83	\$32.54	\$29.30	\$29.48	\$28.64	\$47.22	\$34.09	\$45.70	\$14.01	\$65.16	\$59.51
2020-01-08	\$36.70	\$34.47	\$33.86	\$32.65	\$29.57	\$29.64	\$28.70	\$47.01	\$34.26	\$46.11	\$14.01	\$65.35	\$59.52
2020-01-09	\$36.57	\$34.65	\$33.88	\$32.68	\$29.84	\$29.81	\$28.70	\$46.65	\$34.09	\$46.14	\$13.91	\$66.06	\$59.94
2020-01-10	\$36.60	\$34.61	\$33.63	\$32.53	\$29.76	\$29.66	\$28.54	\$46.27	\$34.50	\$46.39	\$13.94	\$66.49	\$59.52
2020-01-13	\$36.53	\$34.84	\$33.72	\$32.70	\$29.84	\$29.68	\$28.66	\$46.67	\$34.34	\$46.71	\$13.89	\$67.78	\$59.86
2020-01-14	\$36.64	\$34.83	\$33.84	\$32.72	\$29.82	\$29.62	\$28.50	\$46.82	\$34.14	\$46.42	\$13.84	\$67.01	\$59.88
2020-01-15	\$36.66	\$34.76	\$33.84	\$32.70	\$29.73	\$29.45	\$28.42	\$45.75	\$33.58	\$46.28	\$13.78	\$66.74	\$59.66
2020-01-16	\$36.77	\$35.06	\$33.96	\$32.83	\$29.80	\$29.82	\$28.73	\$45.88	\$33.69	\$47.20	\$13.79	\$67.15	\$59.70
2020-01-17	\$36.91	\$35.14	\$34.09	\$32.96	\$29.85	\$29.98	\$28.89	\$46.76	\$33.69	\$48.01	\$13.77	\$67.44	\$59.74
2020-01-21	\$36.71	\$35.10	\$33.73	\$32.58	\$29.82	\$29.50	\$28.56	\$45.67	\$32.27	\$47.61	\$13.69	\$65.00	\$59.42

2020-01-22	\$36.93	\$35.20	\$33.87	\$32.47	\$29.79	\$29.34	\$28.52	\$46.51	\$32.26	\$47.77	\$13.64	\$65.35	\$59.69
2020-01-23	\$36.83	\$35.26	\$33.73	\$32.41	\$29.63	\$29.39	\$28.49	\$47.06	\$31.91	\$47.40	\$13.56	\$64.50	\$59.76
2020-01-24	\$36.52	\$35.05	\$33.66	\$32.25	\$29.63	\$29.37	\$28.24	\$46.49	\$32.05	\$46.88	\$13.51	\$63.40	\$59.53
2020-01-27	\$35.65	\$34.53	\$32.95	\$31.55	\$28.96	\$28.76	\$27.82	\$44.75	\$30.99	\$45.56	\$13.16	\$61.00	\$58.46
2020-01-28	\$35.54	\$34.88	\$33.18	\$31.85	\$29.19	\$29.54	\$28.15	\$45.77	\$31.22	\$46.74	\$13.23	\$61.61	\$58.98
2020-01-29	\$35.22	\$34.77	\$33.16	\$31.95	\$29.15	\$29.61	\$28.27	\$44.96	\$30.73	\$47.23	\$13.21	\$62.21	\$58.79
2020-01-30	\$34.85	\$34.77	\$33.14	\$31.85	\$29.02	\$29.56	\$28.47	\$44.81	\$30.83	\$46.77	\$13.13	\$61.26	\$58.71
2020-01-31	\$34.44	\$34.03	\$32.64	\$31.40	\$28.53	\$28.78	\$28.01	\$43.76	\$30.67	\$45.86	\$13.07	\$60.11	\$57.75
2020-02-03	\$34.27	\$34.28	\$32.39	\$31.52	\$28.59	\$28.92	\$28.00	\$44.43	\$31.09	\$46.75	\$13.03	\$60.97	\$58.19
2020-02-04	\$35.12	\$34.78	\$32.90	\$31.98	\$29.10	\$29.42	\$28.47	\$44.72	\$31.80	\$47.24	\$13.33	\$63.31	\$59.07
2020-02-05	\$35.40	\$35.29	\$33.10	\$32.26	\$29.43	\$29.83	\$28.83	\$44.99	\$32.21	\$47.15	\$13.50	\$63.30	\$59.60
2020-02-06	\$35.00	\$35.40	\$33.01	\$32.42	\$29.52	\$30.13	\$28.99	\$44.17	\$32.09	\$46.52	\$13.40	\$63.61	\$60.05
2020-02-07	\$34.50	\$35.14	\$32.63	\$32.23	\$29.24	\$29.85	\$28.87	\$43.38	\$31.59	\$46.23	\$13.34	\$62.95	\$59.47
2020-02-10	\$34.31	\$35.30	\$32.75	\$32.26	\$29.24	\$29.88	\$28.95	\$42.99	\$31.22	\$46.19	\$13.16	\$63.64	\$59.40
2020-02-11	\$34.55	\$35.47	\$33.02	\$32.35	\$29.48	\$30.04	\$29.08	\$43.91	\$31.39	\$47.19	\$13.30	\$64.53	\$59.70
2020-02-12	\$34.78	\$35.66	\$33.27	\$32.57	\$29.70	\$30.20	\$29.22	\$44.11	\$31.61	\$47.86	\$13.49	\$65.78	\$59.41
2020-02-13	\$34.67	\$35.73	\$33.07	\$32.35	\$29.46	\$29.94	\$29.03	\$43.67	\$31.07	\$47.55	\$13.55	\$64.88	\$58.89
2020-02-14	\$34.57	\$35.74	\$32.92	\$32.29	\$29.48	\$29.94	\$29.18	\$43.86	\$31.21	\$47.71	\$13.50	\$64.82	\$58.45
2020-02-18	\$34.30	\$35.70	\$32.76	\$32.19	\$29.21	\$30.28	\$29.28	\$43.32	\$30.48	\$47.48	\$13.42	\$64.82	\$57.58
2020-02-19	\$34.61	\$35.80	\$32.87	\$32.38	\$29.50	\$30.43	\$29.44	\$43.91	\$30.26	\$47.56	\$13.51	\$65.30	\$57.48
2020-02-20	\$34.58	\$35.78	\$32.74	\$32.23	\$29.34	\$30.06	\$29.10	\$42.84	\$30.12	\$46.80	\$13.44	\$64.56	\$57.11
2020-02-21	\$34.57	\$35.46	\$32.70	\$32.09	\$29.14	\$29.72	\$29.03	\$42.46	\$30.19	\$46.61	\$13.25	\$64.31	\$56.63
2020-02-24	\$33.97	\$34.41	\$31.38	\$30.75	\$27.90	\$28.12	\$27.90	\$40.34	\$29.07	\$45.03	\$12.87	\$62.16	\$54.72
2020-02-25	\$32.99	\$33.42	\$30.71	\$30.01	\$27.27	\$27.48	\$27.00	\$39.77	\$28.77	\$44.30	\$12.76	\$61.80	\$54.63
2020-02-26	\$32.85	\$33.17	\$30.63	\$29.98	\$27.18	\$27.84	\$27.22	\$39.20	\$28.30	\$43.86	\$12.50	\$62.55	\$54.90
2020-02-27	\$31.51	\$31.69	\$29.47	\$29.18	\$26.49	\$27.37	\$26.47	\$37.78	\$27.60	\$42.13	\$12.12	\$61.81	\$53.02
2020-02-28	\$31.24	\$31.32	\$29.30	\$28.93	\$26.22	\$27.24	\$26.29	\$38.36	\$26.96	\$41.62	\$11.71	\$62.13	\$52.96
2020-03-02	\$31.89	\$32.69	\$29.53	\$29.62	\$26.63	\$27.26	\$26.88	\$39.39	\$28.60	\$43.00	\$12.00	\$62.96	\$53.63
2020-03-03	\$31.69	\$31.86	\$29.16	\$29.22	\$26.29	\$26.71	\$26.44	\$38.49	\$28.21	\$43.03	\$11.85	\$62.61	\$52.94

2020-03-04	\$32.59	\$33.14	\$30.33	\$30.24	\$27.12	\$27.65	\$27.37	\$38.78	\$28.77	\$43.89	\$11.97	\$63.62	\$54.09
2020-03-05	\$31.93	\$32.25	\$29.45	\$29.18	\$26.27	\$26.66	\$26.15	\$36.66	\$27.33	\$42.13	\$11.73	\$63.48	\$53.11
2020-03-06	\$30.94	\$31.63	\$28.94	\$28.54	\$26.01	\$26.26	\$25.68	\$35.10	\$27.29	\$40.58	\$11.32	\$62.11	\$52.60
2020-03-09	\$28.85	\$29.31	\$26.21	\$25.89	\$23.76	\$23.03	\$23.32	\$29.79	\$25.74	\$36.15	\$9.54	\$59.67	\$49.92
2020-03-10	\$30.03	\$30.59	\$27.21	\$26.81	\$24.54	\$23.36	\$23.59	\$32.81	\$26.33	\$37.72	\$9.81	\$61.96	\$51.41
2020-03-11	\$28.19	\$28.96	\$25.60	\$25.23	\$23.17	\$22.18	\$22.48	\$29.68	\$25.05	\$35.82	\$9.00	\$59.84	\$49.67
2020-03-12	\$24.85	\$25.99	\$23.04	\$22.03	\$20.23	\$18.71	\$19.20	\$24.74	\$22.71	\$33.13	\$7.93	\$55.34	\$44.80
2020-03-13	\$25.50	\$28.22	\$24.02	\$23.63	\$21.22	\$20.81	\$20.91	\$29.10	\$23.48	\$34.36	\$7.92	\$58.26	\$46.27
2020-03-16	\$23.11	\$24.82	\$21.14	\$20.64	\$18.73	\$18.09	\$18.10	\$22.38	\$20.30	\$29.12	\$6.75	\$52.57	\$43.22
2020-03-17	\$24.28	\$26.14	\$22.05	\$21.50	\$19.41	\$18.81	\$19.55	\$25.30	\$21.14	\$31.39	\$6.67	\$55.18	\$45.34
2020-03-18	\$21.51	\$24.69	\$20.24	\$20.03	\$18.03	\$18.40	\$18.12	\$21.39	\$17.84	\$28.75	\$5.68	\$52.36	\$44.38
2020-03-19	\$22.19	\$24.82	\$20.61	\$20.07	\$18.15	\$18.39	\$18.61	\$22.20	\$19.28	\$28.60	\$6.02	\$52.74	\$45.00
2020-03-20	\$21.72	\$23.62	\$20.06	\$20.47	\$18.25	\$18.55	\$18.33	\$22.33	\$19.00	\$27.04	\$6.01	\$52.60	\$45.11
2020-03-23	\$21.14	\$22.90	\$19.66	\$20.45	\$18.59	\$18.82	\$18.38	\$20.82	\$18.17	\$25.12	\$5.81	\$52.78	\$44.64
2020-03-24	\$21.26	\$25.15	\$21.93	\$22.31	\$20.59	\$20.08	\$19.73	\$23.33	\$18.90	\$26.71	\$6.09	\$55.91	\$47.74
2020-03-25	\$22.64	\$25.47	\$22.84	\$23.41	\$21.12	\$20.87	\$20.49	\$25.04	\$20.00	\$28.91	\$6.87	\$57.01	\$48.64
2020-03-26	\$23.61	\$27.00	\$24.26	\$24.64	\$21.98	\$21.60	\$21.46	\$26.18	\$21.16	\$30.35	\$7.73	\$58.80	\$50.24
2020-03-27	\$22.23	\$26.20	\$23.35	\$23.64	\$21.12	\$20.74	\$20.23	\$23.79	\$20.50	\$27.92	\$7.51	\$55.86	\$50.18
2020-03-30	\$22.38	\$26.99	\$23.77	\$23.72	\$21.52	\$20.89	\$20.38	\$24.00	\$20.54	\$27.68	\$7.25	\$57.12	\$50.79
2020-03-31	\$23.08	\$26.45	\$23.88	\$23.44	\$21.48	\$20.77	\$20.32	\$23.56	\$21.68	\$28.35	\$7.36	\$57.25	\$49.39
2020-04-01	\$22.30	\$25.17	\$22.73	\$22.19	\$20.38	\$19.87	\$19.47	\$22.57	\$21.06	\$26.68	\$6.92	\$55.21	\$47.04
2020-04-02	\$22.41	\$25.64	\$23.25	\$22.55	\$20.73	\$20.37	\$19.71	\$23.06	\$22.08	\$26.61	\$7.23	\$56.87	\$47.64
2020-04-03	\$21.87	\$25.17	\$22.55	\$21.85	\$20.43	\$19.59	\$19.60	\$21.79	\$22.24	\$25.60	\$7.46	\$56.20	\$46.57
2020-04-06	\$22.60	\$27.18	\$23.56	\$23.23	\$21.80	\$20.75	\$20.47	\$23.46	\$23.19	\$27.07	\$7.84	\$58.41	\$49.32
2020-04-07	\$23.02	\$27.23	\$23.72	\$23.31	\$21.97	\$20.75	\$20.50	\$24.49	\$22.80	\$27.45	\$7.96	\$58.42	\$49.85
2020-04-08	\$23.39	\$28.30	\$24.12	\$23.71	\$22.24	\$21.02	\$20.69	\$25.65	\$23.66	\$27.91	\$8.20	\$58.47	\$49.73
2020-04-09	\$24.13	\$28.79	\$24.99	\$24.39	\$23.04	\$21.50	\$21.13	\$25.65	\$24.14	\$28.26	\$8.28	\$58.39	\$50.38
2020-04-13	\$24.63	\$28.35	\$24.71	\$24.03	\$22.68	\$21.10	\$20.97	\$25.46	\$24.20	\$28.25	\$8.26	\$58.49	\$50.17
2020-04-14	\$25.02	\$29.17	\$24.93	\$24.36	\$23.27	\$21.29	\$21.20	\$25.80	\$24.42	\$28.74	\$8.29	\$59.74	\$51.09

2020-04-15	\$24.53	\$28.33	\$23.88	\$23.27	\$22.19	\$20.14	\$20.45	\$25.17	\$23.90	\$27.22	\$8.06	\$59.04	\$50.58
2020-04-16	\$24.71	\$28.48	\$24.03	\$23.12	\$22.13	\$20.04	\$20.07	\$24.68	\$23.67	\$27.03	\$7.99	\$59.70	\$50.15
2020-04-17	\$24.85	\$29.32	\$24.85	\$24.12	\$23.04	\$20.53	\$20.56	\$25.23	\$23.88	\$28.21	\$8.12	\$60.17	\$50.82
2020-04-20	\$24.51	\$28.69	\$24.34	\$23.74	\$22.68	\$20.18	\$20.01	\$24.92	\$23.43	\$27.60	\$7.91	\$60.08	\$50.04
2020-04-21	\$23.94	\$27.77	\$23.67	\$23.28	\$22.17	\$19.78	\$19.73	\$24.10	\$22.74	\$26.76	\$7.49	\$58.66	\$49.57
2020-04-22	\$24.40	\$28.30	\$24.24	\$23.47	\$22.44	\$19.93	\$19.95	\$24.96	\$22.95	\$27.00	\$7.57	\$59.95	\$50.43
2020-04-23	\$24.61	\$28.18	\$24.32	\$23.27	\$22.23	\$19.84	\$19.70	\$24.00	\$23.24	\$26.64	\$7.71	\$59.51	\$50.50
2020-04-24	\$24.54	\$28.62	\$24.48	\$23.59	\$22.51	\$20.12	\$19.87	\$22.16	\$22.97	\$26.71	\$7.56	\$59.66	\$50.89
2020-04-27	\$24.59	\$29.22	\$24.88	\$24.01	\$22.98	\$20.65	\$20.10	\$23.10	\$23.77	\$27.42	\$7.57	\$60.51	\$51.59
2020-04-28	\$24.79	\$29.37	\$25.14	\$24.12	\$23.02	\$20.73	\$20.22	\$24.56	\$24.94	\$28.61	\$7.76	\$60.32	\$52.34
2020-04-29	\$25.72	\$30.25	\$26.00	\$24.95	\$23.99	\$21.56	\$21.11	\$25.93	\$25.68	\$30.33	\$8.03	\$61.34	\$53.26
2020-04-30	\$25.28	\$29.50	\$25.25	\$24.48	\$23.58	\$21.15	\$20.77	\$24.67	\$25.17	\$29.27	\$7.92	\$59.98	\$51.76
2020-05-01	\$24.87	\$28.62	\$24.59	\$24.01	\$23.07	\$20.72	\$20.37	\$23.58	\$24.65	\$28.10	\$7.67	\$57.69	\$50.85
2020-05-04	\$25.54	\$28.71	\$24.71	\$23.77	\$22.92	\$20.56	\$20.20	\$23.88	\$24.69	\$29.30	\$7.70	\$57.90	\$50.60
2020-05-05	\$25.98	\$28.98	\$24.74	\$23.76	\$22.93	\$20.54	\$20.03	\$23.68	\$24.96	\$29.70	\$7.75	\$58.71	\$51.09
2020-05-06	\$25.86	\$28.75	\$24.56	\$23.47	\$22.66	\$20.23	\$19.77	\$23.17	\$24.98	\$29.36	\$7.67	\$59.14	\$50.70
2020-05-07	\$26.36	\$29.09	\$24.91	\$23.98	\$23.13	\$20.31	\$19.97	\$22.43	\$25.43	\$29.66	\$7.89	\$59.63	\$51.46
2020-05-08	\$26.57	\$29.82	\$25.35	\$24.39	\$23.58	\$20.79	\$20.24	\$23.42	\$25.30	\$30.86	\$8.07	\$61.05	\$52.34
2020-05-11	\$26.40	\$29.81	\$25.13	\$24.15	\$23.42	\$20.66	\$19.96	\$22.67	\$24.56	\$30.49	\$7.99	\$61.23	\$52.84
2020-05-12	\$26.06	\$29.01	\$24.86	\$23.74	\$23.06	\$20.62	\$20.01	\$22.11	\$24.24	\$29.88	\$7.81	\$60.76	\$52.15
2020-05-13	\$25.54	\$28.38	\$24.49	\$23.21	\$22.74	\$20.28	\$19.75	\$22.02	\$23.46	\$29.19	\$7.43	\$61.00	\$52.40
2020-05-14	\$25.52	\$28.73	\$24.20	\$23.04	\$22.53	\$20.01	\$19.74	\$22.63	\$23.76	\$29.56	\$7.38	\$60.83	\$51.62
2020-05-15	\$26.01	\$28.76	\$24.17	\$23.07	\$22.70	\$19.96	\$19.52	\$22.25	\$23.17	\$28.90	\$7.47	\$60.31	\$51.71
2020-05-18	\$27.08	\$29.97	\$25.28	\$24.37	\$24.05	\$21.01	\$20.59	\$23.71	\$24.54	\$30.43	\$7.77	\$62.70	\$53.00
2020-05-19	\$26.60	\$29.64	\$24.84	\$23.83	\$23.81	\$20.34	\$19.68	\$23.42	\$24.37	\$29.27	\$7.73	\$62.48	\$52.38
2020-05-20	\$27.48	\$30.21	\$25.35	\$24.32	\$24.48	\$20.77	\$20.12	\$23.80	\$24.89	\$30.37	\$7.88	\$62.89	\$53.17
2020-05-21	\$27.40	\$30.03	\$25.17	\$24.10	\$24.15	\$20.68	\$20.21	\$24.80	\$24.78	\$30.38	\$7.96	\$61.35	\$52.60
2020-05-22	\$26.96	\$30.06	\$25.01	\$24.12	\$24.23	\$20.84	\$20.22	\$24.66	\$24.52	\$30.59	\$7.89	\$59.08	\$52.67
2020-05-26	\$27.21	\$30.62	\$25.51	\$24.97	\$25.14	\$21.58	\$21.18	\$26.59	\$24.56	\$31.81	\$7.99	\$60.17	\$54.46

2020-05-27	\$27.23	\$31.07	\$25.83	\$25.60	\$25.72	\$21.97	\$21.80	\$27.80	\$24.30	\$32.25	\$8.11	\$59.68	\$55.16
2020-05-28	\$27.21	\$30.89	\$26.03	\$25.90	\$25.74	\$22.38	\$21.79	\$26.93	\$24.02	\$31.93	\$8.22	\$59.24	\$55.88
2020-05-29	\$27.30	\$31.11	\$25.73	\$25.93	\$25.79	\$22.46	\$21.72	\$27.19	\$23.89	\$31.89	\$8.10	\$61.00	\$55.41
2020-06-01	\$27.78	\$31.25	\$26.44	\$26.48	\$26.50	\$23.05	\$22.18	\$27.50	\$24.70	\$32.82	\$8.38	\$62.07	\$56.25
2020-06-02	\$28.03	\$31.41	\$26.75	\$27.03	\$26.83	\$23.61	\$22.71	\$29.10	\$25.56	\$33.73	\$8.86	\$63.43	\$56.50
2020-06-03	\$28.93	\$31.79	\$27.45	\$28.03	\$27.92	\$24.64	\$23.60	\$30.39	\$26.23	\$34.44	\$9.13	\$64.33	\$56.89
2020-06-04	\$28.92	\$31.72	\$27.27	\$28.12	\$27.91	\$24.63	\$23.47	\$30.33	\$26.54	\$33.70	\$9.14	\$63.61	\$56.25
2020-06-05	\$30.30	\$32.44	\$27.88	\$28.87	\$28.44	\$25.08	\$24.11	\$31.50	\$28.10	\$35.24	\$9.59	\$64.70	\$57.06
2020-06-08	\$30.35	\$32.92	\$28.31	\$29.22	\$28.83	\$25.55	\$24.61	\$33.27	\$28.64	\$36.27	\$9.75	\$64.52	\$57.90
2020-06-09	\$30.01	\$32.46	\$27.51	\$28.59	\$28.24	\$25.05	\$24.13	\$32.83	\$28.35	\$34.85	\$9.43	\$64.44	\$57.60
2020-06-10	\$30.31	\$32.21	\$27.49	\$28.40	\$28.11	\$24.84	\$23.80	\$31.78	\$27.94	\$34.28	\$9.19	\$65.28	\$57.57
2020-06-11	\$28.48	\$30.30	\$25.69	\$26.47	\$26.43	\$23.21	\$22.25	\$29.29	\$26.12	\$31.44	\$8.45	\$62.81	\$55.15
2020-06-12	\$29.06	\$30.55	\$26.24	\$27.01	\$26.82	\$23.77	\$22.62	\$30.39	\$26.68	\$33.05	\$8.55	\$63.77	\$56.14
2020-06-15	\$28.67	\$30.67	\$26.04	\$27.12	\$26.83	\$23.91	\$22.64	\$29.53	\$25.92	\$32.75	\$8.44	\$63.45	\$55.09
2020-06-16	\$28.68	\$31.25	\$26.38	\$27.38	\$27.12	\$24.22	\$22.81	\$29.35	\$26.25	\$32.97	\$8.60	\$64.25	\$56.15
2020-06-17	\$28.71	\$31.14	\$26.27	\$27.43	\$27.15	\$24.09	\$22.79	\$29.78	\$26.14	\$32.94	\$8.42	\$64.79	\$56.40
2020-06-18	\$28.14	\$31.01	\$25.97	\$27.22	\$26.98	\$23.96	\$22.51	\$29.39	\$25.51	\$32.10	\$8.44	\$65.16	\$56.30
2020-06-19	\$28.48	\$31.04	\$25.89	\$26.99	\$26.75	\$23.89	\$22.40	\$29.70	\$25.54	\$33.07	\$8.45	\$65.08	\$56.03
2020-06-22	\$28.58	\$31.12	\$26.23	\$27.43	\$27.20	\$24.31	\$22.74	\$29.66	\$25.61	\$32.94	\$8.48	\$65.97	\$56.41
2020-06-23	\$28.84	\$31.12	\$26.42	\$27.60	\$27.51	\$24.59	\$22.90	\$30.53	\$25.66	\$33.24	\$8.53	\$66.92	\$56.56
2020-06-24	\$28.54	\$30.30	\$25.50	\$26.89	\$26.74	\$23.81	\$22.21	\$29.04	\$25.73	\$32.38	\$8.35	\$66.30	\$55.38
2020-06-25	\$28.07	\$30.55	\$25.96	\$27.43	\$27.11	\$24.10	\$22.65	\$29.66	\$26.16	\$32.49	\$8.47	\$66.06	\$56.01
2020-06-26	\$28.18	\$30.12	\$25.48	\$26.96	\$26.57	\$23.64	\$22.06	\$28.20	\$25.53	\$31.56	\$8.21	\$65.59	\$55.47
2020-06-29	\$28.24	\$30.61	\$25.76	\$27.40	\$27.00	\$24.18	\$22.53	\$28.95	\$26.02	\$31.94	\$8.29	\$65.57	\$55.48
2020-06-30	\$28.43	\$31.07	\$25.76	\$27.42	\$27.11	\$24.08	\$22.46	\$28.76	\$25.20	\$31.88	\$8.25	\$65.45	\$54.92
2020-07-01	\$28.23	\$30.99	\$25.94	\$27.46	\$27.09	\$24.06	\$22.47	\$29.70	\$25.87	\$32.19	\$8.31	\$66.03	\$54.81
2020-07-02	\$28.07	\$31.17	\$26.14	\$27.84	\$27.57	\$24.58	\$23.07	\$29.46	\$27.29	\$32.70	\$8.62	\$68.24	\$55.17
2020-07-06	\$28.38	\$31.61	\$26.41	\$28.37	\$28.19	\$24.96	\$23.50	\$30.40	\$28.11	\$33.03	\$8.78	\$73.20	\$55.88
2020-07-07	\$28.76	\$31.23	\$25.93	\$27.90	\$27.57	\$24.74	\$23.04	\$29.73	\$28.01	\$32.23	\$8.68	\$71.78	\$55.38

2020-07-08	\$28.81	\$31.32	\$26.26	\$28.13	\$27.96	\$25.10	\$23.25	\$30.69	\$27.90	\$32.03	\$8.76	\$74.87	\$55.34
2020-07-09	\$28.54	\$31.11	\$25.75	\$27.57	\$27.77	\$24.41	\$22.78	\$30.46	\$26.65	\$31.53	\$8.68	\$75.05	\$55.07
2020-07-10	\$28.73	\$31.42	\$26.05	\$27.93	\$28.06	\$24.87	\$23.20	\$30.79	\$26.45	\$31.56	\$8.79	\$74.37	\$55.79
2020-07-13	\$28.37	\$31.15	\$25.75	\$27.87	\$27.83	\$24.61	\$23.12	\$30.00	\$27.20	\$31.02	\$8.79	\$73.52	\$55.50
2020-07-14	\$28.57	\$31.64	\$26.18	\$28.37	\$28.37	\$25.12	\$23.43	\$30.77	\$27.77	\$31.35	\$8.78	\$72.88	\$55.94
2020-07-15	\$28.87	\$32.08	\$26.65	\$28.84	\$28.68	\$25.49	\$23.77	\$31.03	\$27.10	\$32.08	\$8.81	\$72.99	\$56.65
2020-07-16	\$28.80	\$32.02	\$26.44	\$28.68	\$28.60	\$25.58	\$23.75	\$30.91	\$26.71	\$31.82	\$8.84	\$70.76	\$56.07
2020-07-17	\$28.94	\$32.21	\$26.60	\$28.80	\$28.84	\$25.83	\$23.80	\$31.34	\$26.44	\$31.46	\$8.77	\$71.15	\$56.16
2020-07-20	\$29.42	\$32.32	\$26.62	\$28.85	\$29.18	\$26.06	\$23.94	\$32.02	\$25.92	\$31.61	\$8.75	\$72.69	\$56.20
2020-07-21	\$29.89	\$32.37	\$26.69	\$28.95	\$29.38	\$26.11	\$23.94	\$32.69	\$26.43	\$32.43	\$8.92	\$73.25	\$56.23
2020-07-22	\$30.10	\$32.63	\$26.58	\$29.01	\$29.66	\$26.28	\$23.95	\$33.50	\$26.86	\$32.92	\$8.92	\$72.13	\$56.08
2020-07-23	\$29.70	\$32.41	\$26.37	\$28.70	\$29.35	\$25.88	\$23.69	\$32.18	\$27.25	\$32.56	\$8.95	\$71.93	\$55.89
2020-07-24	\$30.02	\$31.95	\$26.27	\$28.58	\$29.05	\$25.65	\$23.67	\$32.29	\$27.28	\$32.76	\$8.86	\$70.94	\$55.83
2020-07-27	\$30.97	\$32.27	\$26.50	\$28.77	\$29.50	\$25.86	\$23.66	\$33.28	\$27.70	\$33.58	\$8.99	\$71.02	\$56.94
2020-07-28	\$30.47	\$32.00	\$26.49	\$28.56	\$29.18	\$25.63	\$23.66	\$33.09	\$27.90	\$33.53	\$8.90	\$70.76	\$56.59
2020-07-29	\$31.11	\$32.44	\$26.85	\$29.06	\$29.59	\$25.95	\$23.79	\$33.48	\$27.67	\$33.55	\$8.90	\$72.09	\$56.62
2020-07-30	\$30.56	\$32.35	\$26.47	\$28.63	\$28.82	\$25.28	\$23.31	\$33.39	\$27.16	\$32.92	\$8.79	\$71.66	\$55.77
2020-07-31	\$30.51	\$32.56	\$25.93	\$27.95	\$28.25	\$24.73	\$22.64	\$32.54	\$27.32	\$32.53	\$8.70	\$71.51	\$54.33
2020-08-03	\$30.36	\$32.86	\$26.40	\$28.47	\$28.98	\$25.17	\$22.96	\$31.87	\$27.16	\$32.49	\$8.62	\$72.94	\$55.44
2020-08-04	\$30.36	\$33.00	\$26.51	\$28.64	\$29.00	\$25.54	\$23.17	\$31.51	\$26.80	\$32.30	\$8.54	\$74.01	\$56.06
2020-08-05	\$31.22	\$33.08	\$26.71	\$28.85	\$29.12	\$25.73	\$23.18	\$31.91	\$26.44	\$33.27	\$8.50	\$74.61	\$56.02
2020-08-06	\$31.34	\$33.06	\$26.69	\$28.91	\$29.29	\$25.57	\$23.18	\$32.04	\$26.73	\$33.26	\$8.57	\$74.78	\$55.98
2020-08-07	\$31.08	\$33.26	\$26.51	\$28.71	\$29.20	\$25.45	\$22.96	\$31.25	\$26.48	\$33.28	\$8.43	\$72.34	\$56.00
2020-08-10	\$30.96	\$33.47	\$26.66	\$28.77	\$29.20	\$25.59	\$23.16	\$31.17	\$25.96	\$33.52	\$8.52	\$71.90	\$56.27
2020-08-11	\$30.10	\$33.17	\$26.83	\$29.01	\$29.32	\$25.85	\$23.48	\$30.99	\$26.32	\$33.82	\$8.53	\$71.81	\$56.73
2020-08-12	\$30.61	\$33.55	\$27.41	\$29.67	\$30.02	\$26.50	\$23.93	\$30.82	\$26.57	\$33.91	\$8.56	\$72.86	\$57.93
2020-08-13	\$30.97	\$33.45	\$27.13	\$29.55	\$29.82	\$26.28	\$23.76	\$30.75	\$26.42	\$34.14	\$8.56	\$72.32	\$57.86
2020-08-14	\$31.03	\$33.48	\$26.81	\$29.13	\$29.65	\$26.02	\$23.50	\$30.72	\$26.30	\$34.68	\$8.56	\$72.28	\$57.85
2020-08-17	\$31.33	\$33.57	\$27.01	\$29.32	\$29.92	\$26.03	\$23.45	\$29.85	\$26.19	\$34.67	\$8.49	\$73.78	\$58.09

2020-08-18	\$31.41	\$33.52	\$27.02	\$29.24	\$29.98	\$25.99	\$23.38	\$30.70	\$26.52	\$34.55	\$8.57	\$74.01	\$58.29
2020-08-19	\$31.03	\$33.46	\$26.83	\$29.16	\$29.87	\$26.04	\$23.29	\$29.85	\$26.49	\$34.39	\$8.66	\$73.23	\$57.98
2020-08-20	\$30.96	\$33.43	\$26.78	\$29.00	\$29.77	\$25.84	\$23.15	\$29.92	\$26.53	\$34.28	\$8.65	\$73.45	\$57.77
2020-08-21	\$30.71	\$33.49	\$26.51	\$28.78	\$29.47	\$25.62	\$22.99	\$29.65	\$26.38	\$33.97	\$8.61	\$74.25	\$57.61
2020-08-24	\$30.65	\$33.80	\$26.93	\$29.32	\$30.08	\$26.12	\$23.38	\$29.93	\$26.59	\$33.91	\$8.70	\$75.36	\$58.25
2020-08-25	\$30.53	\$33.80	\$26.79	\$29.47	\$30.20	\$26.07	\$23.44	\$30.18	\$26.09	\$34.26	\$8.76	\$76.54	\$58.17
2020-08-26	\$30.81	\$33.88	\$26.94	\$29.72	\$30.51	\$26.17	\$23.40	\$29.32	\$25.83	\$33.75	\$8.86	\$76.82	\$58.33
2020-08-27	\$30.62	\$33.98	\$26.71	\$29.30	\$30.09	\$25.69	\$23.18	\$29.52	\$25.82	\$33.29	\$8.77	\$76.29	\$57.79
2020-08-28	\$31.40	\$34.17	\$26.92	\$29.59	\$30.27	\$26.00	\$23.60	\$30.89	\$26.08	\$34.19	\$8.97	\$77.25	\$58.10
2020-08-31	\$31.49	\$34.15	\$26.64	\$29.26	\$30.10	\$25.74	\$23.15	\$29.82	\$25.35	\$32.91	\$8.86	\$75.65	\$58.02
2020-09-01	\$31.52	\$34.32	\$26.43	\$29.21	\$30.12	\$25.67	\$23.04	\$31.06	\$25.24	\$33.70	\$9.27	\$77.34	\$58.18
2020-09-02	\$31.57	\$34.95	\$26.83	\$29.81	\$30.72	\$26.01	\$23.13	\$31.11	\$25.86	\$33.43	\$9.39	\$77.19	\$58.76
2020-09-03	\$31.21	\$33.80	\$26.07	\$29.25	\$29.91	\$25.39	\$22.92	\$31.10	\$25.66	\$32.89	\$9.21	\$75.03	\$57.73
2020-09-04	\$31.11	\$33.59	\$26.16	\$29.31	\$29.85	\$25.54	\$23.14	\$31.19	\$25.74	\$33.18	\$9.13	\$74.81	\$58.05
2020-09-08	\$30.67	\$32.73	\$25.85	\$28.81	\$29.56	\$25.07	\$22.64	\$30.33	\$25.70	\$32.47	\$9.01	\$72.64	\$57.57
2020-09-09	\$31.03	\$33.31	\$26.37	\$29.45	\$30.42	\$25.71	\$23.02	\$31.22	\$25.59	\$33.22	\$9.11	\$73.32	\$57.77
2020-09-10	\$30.36	\$32.73	\$25.73	\$29.12	\$30.11	\$25.48	\$22.75	\$30.22	\$24.70	\$32.94	\$8.91	\$71.91	\$57.80
2020-09-11	\$30.06	\$32.76	\$25.99	\$29.40	\$30.31	\$25.66	\$22.80	\$30.09	\$25.11	\$33.56	\$8.90	\$72.73	\$58.55
2020-09-14	\$30.35	\$33.28	\$26.10	\$29.57	\$30.35	\$25.61	\$22.86	\$31.07	\$25.31	\$34.42	\$8.91	\$73.80	\$58.97
2020-09-15	\$30.11	\$33.45	\$26.40	\$29.66	\$30.40	\$25.89	\$23.12	\$30.92	\$25.55	\$34.12	\$8.90	\$74.82	\$59.24
2020-09-16	\$30.16	\$33.40	\$26.53	\$29.46	\$30.28	\$25.64	\$23.04	\$30.98	\$25.36	\$34.33	\$8.90	\$74.56	\$59.45
2020-09-17	\$30.22	\$33.23	\$26.43	\$29.54	\$30.46	\$25.55	\$23.18	\$31.23	\$25.25	\$33.93	\$8.84	\$74.08	\$59.52
2020-09-18	\$30.21	\$32.89	\$26.11	\$29.13	\$30.27	\$25.27	\$22.69	\$29.80	\$24.84	\$33.35	\$8.83	\$73.99	\$59.26
2020-09-21	\$29.54	\$32.47	\$25.21	\$28.10	\$29.01	\$24.49	\$22.03	\$29.35	\$24.64	\$32.69	\$8.66	\$73.71	\$58.38
2020-09-22	\$29.70	\$32.77	\$25.29	\$27.88	\$28.97	\$24.43	\$21.66	\$29.06	\$24.22	\$32.31	\$8.57	\$73.24	\$58.56
2020-09-23	\$28.63	\$31.93	\$25.10	\$27.48	\$28.54	\$24.07	\$21.35	\$28.06	\$23.12	\$31.26	\$8.35	\$72.47	\$58.90
2020-09-24	\$29.04	\$32.08	\$25.07	\$27.54	\$28.73	\$24.32	\$21.54	\$28.81	\$23.75	\$32.17	\$8.45	\$71.89	\$58.67
2020-09-25	\$29.13	\$32.58	\$25.22	\$27.50	\$28.56	\$24.10	\$21.49	\$28.62	\$23.63	\$32.22	\$8.29	\$71.60	\$58.76
2020-09-28	\$29.29	\$33.09	\$25.70	\$27.99	\$29.27	\$24.55	\$21.97	\$27.46	\$23.86	\$32.65	\$8.40	\$72.49	\$59.58

2020-09-29	\$29.31	\$33.02	\$25.54	\$28.07	\$29.37	\$24.50	\$21.86	\$27.17	\$23.50	\$32.59	\$8.25	\$72.40	\$59.53
2020-09-30	\$29.50	\$33.20	\$25.49	\$27.94	\$29.13	\$24.38	\$21.76	\$27.66	\$24.09	\$33.36	\$8.32	\$74.17	\$59.07
2020-10-01	\$29.31	\$33.43	\$25.54	\$28.10	\$29.32	\$24.49	\$21.91	\$27.67	\$24.02	\$33.10	\$8.32	\$74.85	\$59.08
2020-10-02	\$29.39	\$33.29	\$25.74	\$28.10	\$29.17	\$24.47	\$22.01	\$27.16	\$24.05	\$33.26	\$8.27	\$73.99	\$58.79
2020-10-05	\$29.69	\$34.01	\$26.07	\$28.62	\$29.78	\$24.97	\$22.45	\$28.38	\$24.15	\$33.98	\$8.34	\$74.39	\$59.27
2020-10-06	\$29.45	\$33.67	\$25.68	\$28.35	\$29.46	\$24.68	\$22.38	\$27.97	\$23.57	\$33.58	\$8.32	\$75.04	\$59.14
2020-10-07	\$29.42	\$34.28	\$25.85	\$28.61	\$29.73	\$25.04	\$22.62	\$27.91	\$23.54	\$34.30	\$8.26	\$75.88	\$59.45
2020-10-08	\$29.73	\$34.58	\$26.13	\$28.82	\$30.04	\$25.18	\$22.91	\$28.72	\$23.72	\$35.35	\$8.39	\$76.36	\$59.47
2020-10-09	\$30.00	\$34.75	\$26.37	\$29.09	\$30.20	\$25.24	\$22.86	\$28.96	\$24.04	\$35.82	\$8.42	\$76.77	\$59.46
2020-10-12	\$30.13	\$35.23	\$26.46	\$29.27	\$30.41	\$25.41	\$22.85	\$29.32	\$24.17	\$35.56	\$8.50	\$78.31	\$59.62
2020-10-13	\$30.22	\$35.07	\$25.99	\$28.82	\$29.89	\$25.01	\$22.40	\$29.05	\$23.80	\$35.09	\$8.29	\$78.36	\$59.43
2020-10-14	\$29.91	\$34.92	\$25.87	\$28.71	\$29.88	\$25.05	\$22.53	\$29.14	\$23.62	\$35.09	\$8.30	\$77.60	\$59.52
2020-10-15	\$29.82	\$35.03	\$25.42	\$28.50	\$29.27	\$24.47	\$22.27	\$28.92	\$23.74	\$35.17	\$8.29	\$76.94	\$59.02
2020-10-16	\$30.05	\$35.00	\$25.67	\$28.75	\$29.61	\$24.76	\$22.33	\$28.66	\$23.89	\$35.26	\$8.32	\$77.81	\$58.90
2020-10-19	\$29.58	\$34.54	\$25.42	\$28.68	\$29.40	\$24.64	\$22.28	\$28.88	\$24.04	\$34.81	\$8.37	\$77.34	\$58.97
2020-10-20	\$29.74	\$34.70	\$25.57	\$28.99	\$29.49	\$25.10	\$22.78	\$29.38	\$24.34	\$35.65	\$8.49	\$78.27	\$58.98
2020-10-21	\$30.30	\$34.60	\$25.45	\$28.58	\$29.13	\$24.63	\$22.47	\$29.32	\$25.10	\$35.99	\$8.58	\$78.46	\$59.44
2020-10-22	\$30.32	\$34.76	\$25.51	\$28.66	\$29.13	\$24.67	\$22.42	\$29.84	\$25.54	\$36.21	\$8.50	\$78.22	\$59.27
2020-10-23	\$30.53	\$34.79	\$25.77	\$29.05	\$29.40	\$24.97	\$22.76	\$29.49	\$25.50	\$36.48	\$8.54	\$78.53	\$59.30
2020-10-26	\$30.22	\$34.15	\$25.38	\$28.33	\$28.08	\$24.50	\$22.41	\$29.56	\$24.85	\$35.79	\$8.39	\$77.84	\$58.73
2020-10-27	\$30.57	\$33.94	\$25.13	\$27.68	\$27.68	\$24.01	\$21.87	\$28.72	\$24.69	\$35.44	\$8.38	\$79.11	\$58.94
2020-10-28	\$29.41	\$32.84	\$24.16	\$26.52	\$26.38	\$22.89	\$21.09	\$27.17	\$24.04	\$34.30	\$8.12	\$77.55	\$58.14
2020-10-29	\$29.32	\$33.10	\$24.40	\$26.66	\$26.48	\$22.86	\$20.96	\$27.52	\$24.03	\$33.72	\$8.05	\$79.09	\$58.58
2020-10-30	\$29.30	\$32.84	\$24.34	\$26.67	\$26.28	\$22.81	\$21.01	\$26.86	\$23.90	\$34.16	\$8.14	\$77.72	\$58.24
2020-11-02	\$29.70	\$33.38	\$24.62	\$27.16	\$26.64	\$23.32	\$21.46	\$27.17	\$24.29	\$34.09	\$8.22	\$79.00	\$58.85
2020-11-03	\$30.18	\$34.03	\$25.31	\$28.01	\$27.51	\$24.23	\$22.15	\$27.52	\$24.27	\$34.60	\$8.32	\$78.00	\$60.09
2020-11-04	\$29.57	\$34.73	\$25.54	\$28.44	\$27.88	\$24.56	\$22.02	\$28.39	\$24.24	\$34.94	\$8.34	\$81.44	\$59.99
2020-11-05	\$30.45	\$35.34	\$26.03	\$29.17	\$28.61	\$25.35	\$22.77	\$29.88	\$25.33	\$36.46	\$8.54	\$82.36	\$61.47
2020-11-06	\$30.85	\$35.16	\$26.10	\$29.21	\$28.64	\$25.52	\$22.77	\$30.76	\$26.14	\$36.76	\$8.61	\$82.81	\$61.52

2020-11-09	\$31.95	\$35.32	\$27.33	\$30.86	\$29.44	\$26.55	\$24.43	\$31.42	\$26.75	\$38.19	\$9.13	\$82.05	\$63.33
2020-11-10	\$29.89	\$35.35	\$28.13	\$31.72	\$29.73	\$26.94	\$25.52	\$31.74	\$27.39	\$38.89	\$9.23	\$79.34	\$63.09
2020-11-11	\$30.32	\$35.61	\$28.46	\$31.77	\$29.94	\$27.02	\$25.64	\$31.77	\$27.42	\$39.08	\$9.24	\$79.68	\$63.47
2020-11-12	\$29.93	\$35.22	\$27.88	\$31.20	\$29.48	\$26.63	\$25.26	\$30.74	\$26.43	\$38.19	\$9.08	\$79.74	\$62.49
2020-11-13	\$30.59	\$35.88	\$28.31	\$31.73	\$29.93	\$27.29	\$25.93	\$31.32	\$26.98	\$39.17	\$9.16	\$80.46	\$63.38
2020-11-16	\$30.65	\$36.35	\$28.71	\$32.22	\$30.07	\$27.58	\$26.35	\$32.10	\$27.55	\$40.51	\$9.34	\$80.66	\$64.28
2020-11-17	\$31.46	\$36.14	\$28.53	\$32.31	\$30.07	\$27.88	\$26.31	\$32.99	\$27.36	\$40.73	\$9.35	\$80.32	\$64.03
2020-11-18	\$31.76	\$35.74	\$28.36	\$32.12	\$29.98	\$27.81	\$26.12	\$32.37	\$27.64	\$40.84	\$9.41	\$79.87	\$63.60
2020-11-19	\$31.48	\$35.92	\$28.60	\$32.39	\$30.14	\$28.14	\$26.45	\$32.91	\$27.33	\$40.72	\$9.42	\$80.28	\$64.02
2020-11-20	\$31.83	\$35.70	\$28.58	\$32.32	\$30.09	\$28.10	\$26.36	\$32.17	\$27.36	\$40.94	\$9.48	\$81.50	\$64.74
2020-11-23	\$32.06	\$35.98	\$28.63	\$32.33	\$30.13	\$28.11	\$26.48	\$32.35	\$27.60	\$41.06	\$9.48	\$81.13	\$64.78
2020-11-24	\$32.93	\$36.37	\$29.18	\$32.88	\$30.52	\$28.89	\$27.15	\$33.44	\$28.21	\$41.85	\$9.73	\$82.05	\$65.76
2020-11-25	\$33.10	\$36.23	\$28.97	\$32.91	\$30.58	\$29.08	\$27.13	\$33.86	\$28.01	\$41.56	\$9.74	\$81.24	\$65.29
2020-11-27	\$33.55	\$36.34	\$28.94	\$33.15	\$30.73	\$29.14	\$27.27	\$34.03	\$27.82	\$41.40	\$9.67	\$82.43	\$66.23
2020-11-30	\$33.40	\$36.17	\$28.26	\$32.49	\$30.56	\$28.56	\$26.77	\$33.25	\$26.89	\$40.57	\$9.47	\$79.81	\$64.39
2020-12-01	\$33.99	\$36.52	\$29.09	\$33.37	\$31.17	\$29.07	\$27.38	\$34.89	\$28.20	\$42.05	\$9.85	\$80.44	\$65.71
2020-12-02	\$34.09	\$36.39	\$29.18	\$33.42	\$31.08	\$28.99	\$27.71	\$34.88	\$27.99	\$42.62	\$10.06	\$79.96	\$65.60
2020-12-03	\$34.37	\$36.47	\$29.54	\$33.37	\$31.03	\$28.98	\$27.63	\$35.47	\$28.19	\$43.00	\$10.18	\$80.70	\$65.76
2020-12-04	\$34.45	\$36.87	\$29.85	\$33.67	\$31.14	\$29.25	\$28.13	\$36.15	\$28.91	\$43.10	\$10.49	\$80.74	\$66.06
2020-12-07	\$34.30	\$36.82	\$29.56	\$33.35	\$31.07	\$29.05	\$27.86	\$36.17	\$28.37	\$42.53	\$10.65	\$80.33	\$65.09
2020-12-08	\$34.34	\$37.00	\$29.69	\$33.44	\$31.22	\$29.13	\$27.85	\$36.25	\$28.67	\$42.74	\$10.65	\$80.58	\$65.24
2020-12-09	\$34.24	\$36.73	\$29.80	\$33.20	\$31.15	\$29.10	\$27.78	\$35.65	\$28.66	\$42.06	\$10.85	\$79.24	\$65.70
2020-12-10	\$34.41	\$36.63	\$29.70	\$33.28	\$31.23	\$29.24	\$27.72	\$37.39	\$28.93	\$42.64	\$10.95	\$80.35	\$65.81
2020-12-11	\$33.81	\$36.53	\$29.37	\$33.13	\$30.90	\$29.02	\$27.47	\$37.14	\$28.66	\$42.30	\$10.85	\$79.60	\$65.95
2020-12-14	\$33.39	\$36.55	\$28.97	\$32.97	\$30.71	\$28.75	\$27.22	\$36.23	\$28.35	\$41.84	\$10.89	\$78.53	\$65.91
2020-12-15	\$33.99	\$37.05	\$29.39	\$33.36	\$31.24	\$29.18	\$27.36	\$37.02	\$28.46	\$42.42	\$11.15	\$78.87	\$66.38
2020-12-16	\$34.50	\$37.14	\$29.64	\$33.35	\$31.71	\$29.23	\$27.27	\$37.51	\$28.67	\$42.75	\$11.13	\$79.51	\$66.37
2020-12-17	\$34.85	\$37.39	\$29.72	\$33.49	\$32.11	\$29.47	\$27.44	\$37.89	\$29.85	\$43.49	\$11.35	\$80.39	\$66.76
2020-12-18	\$34.82	\$37.30	\$29.38	\$33.31	\$32.04	\$29.28	\$27.08	\$37.70	\$29.72	\$42.59	\$11.37	\$80.34	\$66.57

2020-12-21	\$34.41	\$37.11	\$28.88	\$32.82	\$31.39	\$28.85	\$26.54	\$36.62	\$29.05	\$41.88	\$10.88	\$79.96	\$65.85
2020-12-22	\$33.97	\$37.21	\$28.82	\$32.79	\$31.29	\$29.03	\$26.53	\$36.60	\$29.39	\$40.98	\$10.90	\$79.34	\$65.82
2020-12-23	\$34.44	\$37.31	\$29.37	\$33.26	\$31.77	\$29.47	\$27.12	\$36.66	\$29.54	\$42.21	\$10.88	\$79.80	\$66.06
2020-12-24	\$34.50	\$37.40	\$29.43	\$33.24	\$31.84	\$29.47	\$27.23	\$36.96	\$29.73	\$42.38	\$10.93	\$77.62	\$65.82
2020-12-28	\$34.54	\$37.48	\$29.39	\$33.55	\$32.20	\$29.68	\$27.42	\$36.81	\$30.00	\$42.52	\$11.02	\$77.40	\$66.49
2020-12-29	\$34.59	\$37.30	\$29.68	\$33.70	\$32.19	\$29.69	\$27.51	\$37.23	\$30.01	\$43.59	\$11.20	\$79.16	\$67.32
2020-12-30	\$35.00	\$37.44	\$29.62	\$33.71	\$32.17	\$29.77	\$27.45	\$37.15	\$30.40	\$43.51	\$11.39	\$80.92	\$67.35
2020-12-31	\$34.68	\$37.67	\$29.29	\$33.26	\$31.77	\$29.44	\$27.04	\$37.07	\$30.21	\$42.99	\$11.36	\$80.97	\$67.56

	Perú	Estados Unidos	Reino Unido	Francia	Alemania	Italia	España	Brasil	Chile	México	Colombia	China	Japón	
2015-05-01	0.01074	0.00968	0.00052	0.01280	0.01275	0.01495	0.00970	-	0.00990	0.00496	0.00113	0.00921	0.01236	
2015-05-04	0.00581	0.00720	0.00260	0.00620	0.00067	0.00453	0.00581	0.00221	0.00919	0.01176	0.00623	0.00819	0.00460	
2015-05-05	0.00577	0.01364	0.01622	0.01697	0.01920	0.02560	0.02471	0.01265	0.01550	0.00321	0.00225	0.03089	0.01930	
2015-05-06	-	-	-	-	-	-	-	-	-	-	-	-	-	
2015-05-07	0.00706	0.00934	0.00369	0.01257	0.01217	0.01321	0.01215	0.00768	0.00535	0.00321	0.00341	0.02174	0.00078	
2015-05-07	0.00193	0.01135	0.00263	0.00812	0.00168	0.00066	0.00281	0.00440	0.00324	0.00237	0.00226	0.00547	0.00156	
2015-05-08	-	0.00683	0.03469	0.01980	0.02196	0.02461	0.02255	0.01955	0.00851	0.01834	0.00226	0.02300	0.02310	
2015-05-11	0.00585	0.00260	0.00609	0.01426	0.01225	0.01029	0.00774	0.02230	0.00206	0.00989	0.00965	0.00652	0.01611	
2015-05-12	0.00291	-	0.00955	0.00813	0.00369	0.00568	0.00065	0.00083	0.00412	0.00160	0.00574	0.01157	0.00508	-
2015-05-13	0.01093	0.00575	0.00509	0.00810	0.00235	0.01158	0.01050	-	0.01157	0.00389	0.00439	0.00585	0.00908	0.00617
2015-05-14	0.00415	0.00420	0.00959	0.01961	0.02554	0.02088	0.01473	0.01948	0.00867	0.01921	0.01577	0.00710	0.00537	

2015-05-15	0.00381	-	-	0.00302	0.00216	0.00262	0.00500	0.00190	0.00866	0.00476	0.00692	0.00392	0.01697	0.00458
2015-05-18	-	0.01727	-	-	-	-	0.01002	0.01173	0.02730	0.00817	0.00560	0.01117	0.01139	0.00834
2015-05-19	-	0.01103	0.00815	0.00763	0.00181	0.00262	0.00126	0.00633	0.01646	0.01864	0.00863	0.01771	0.01075	0.00075
2015-05-20	-	0.00196	0.00356	0.00611	0.00217	0.00131	-	0.00276	0.00169	0.00652	0.00017	0.00683	0.00748	-
2015-05-21	-	0.00164	0.00158	0.01010	0.00324	0.00262	0.00315	0.00412	0.01045	0.00047	0.00552	0.01145	0.00409	0.00376
2015-05-22	-	0.00394	-	0.01010	0.00867	0.01317	0.00883	0.01242	0.02967	0.00680	0.00673	-	0.02843	0.00226
2015-05-26	-	0.01623	0.00913	0.01741	0.02164	0.02789	0.02958	0.04024	0.03451	0.01136	0.01205	0.03835	0.00413	0.01288
2015-05-27	-	0.00704	0.00466	0.00772	0.01801	0.01286	0.02131	0.01464	0.01203	0.00167	0.00596	0.00404	0.00095	0.00684
2015-05-28	-	0.00371	0.00091	0.00103	0.00146	0.00303	0.00319	0.00313	0.00841	0.00478	0.00017	0.03028	0.03604	0.00228
2015-05-29	-	0.00203	-	0.00824	0.01803	0.01804	0.00896	0.01085	0.02721	0.01205	0.00664	0.00129	0.01525	0.00915
2015-06-01	-	0.00203	-	0.01040	0.00298	0.00310	0.00386	0.00288	0.00679	0.01317	0.00566	-	0.01097	0.00459
2015-06-02	-	0.01112	0.00178	0.00417	0.01479	0.00892	0.01854	0.01940	0.03330	0.00542	0.00617	0.02736	0.00165	0.00229
2015-06-03	-	0.00403	-	0.00052	0.01312	0.01559	0.01071	0.00788	0.00957	0.00694	0.00789	0.02286	0.00791	0.00382
2015-06-04	-	0.00642	-	0.00993	0.01643	0.01286	0.01706	0.01896	0.01453	0.01100	0.00656	0.02326	0.00891	0.00688
2015-06-05	-	0.00441	-	0.00897	0.01708	0.01856	0.02386	0.00861	0.00214	0.00479	0.01150	0.00607	0.00682	0.00615
2015-06-08	-	0.00238	0.01055	0.00159	0.00112	0.00104	0.00261	0.00058	0.01003	0.00177	0.00525	0.00797	0.00217	-

2015-06-09	-0.00068	0.00281	0.00532	0.00150	0.00522	0.00065	0.00260	0.00362	0.00151	0.00192	0.03214	0.01442	0.01014
2015-06-10	0.00239	0.01078	0.02478	0.02338	0.03162	0.03158	0.02427	0.01377	0.01005	0.00849	0.01474	0.00746	0.01632
2015-06-11	0.00136	0.00633	0.00208	0.00403	0.00034	0.00317	0.00366	0.00059	0.00025	0.00757	-	0.00628	0.00462
2015-06-12	0.00509	0.00649	0.00573	0.01472	0.01191	0.01658	0.01187	0.00866	0.00050	0.00171	0.00254	0.00825	0.00539
2015-06-15	-0.00986	0.00262	0.00577	0.01269	0.01379	0.01883	0.01317	0.00813	0.01208	0.00775	0.03388	0.02703	0.00308
2015-06-16	-0.00171	0.00358	0.00053	0.00038	-	0.00262	0.00289	0.02182	0.00253	0.00706	0.02815	0.01353	0.00463
2015-06-17	0.01427	0.00040	0.00629	0.00603	0.00383	0.00461	0.00260	0.00295	0.00354	0.00957	0.01608	0.00470	0.00854
2015-06-18	0.00840	0.01378	0.00987	0.01053	0.02001	0.02090	0.01923	0.01782	0.00101	0.00509	-	0.00486	0.00078
2015-06-19	-0.01009	0.00196	0.00518	0.00262	0.00996	0.00258	0.00085	0.02137	0.01865	0.00441	0.01608	0.00956	0.00078
2015-06-22	0.00304	0.00547	0.01137	0.03536	0.03359	0.03547	0.03467	0.00854	0.01434	0.00610	0.00448	0.01198	0.01544
2015-06-23	0.00135	0.00078	0.00051	0.00072	0.00234	0.00374	0.00828	0.00088	0.01188	0.00034	-	0.02370	0.01143
2015-06-24	-0.01038	0.00548	0.00463	0.00654	0.01144	0.01384	0.01255	0.00824	0.00883	0.00712	0.00256	0.00168	0.01066
2015-06-25	-0.01273	0.00590	0.01875	0.01617	0.01328	0.00827	0.01527	0.03733	0.02932	0.00751	-	0.02590	0.00307
2015-06-26	0.00538	-	0.00633	0.00481	0.00411	0.00763	0.00653	0.01462	0.00026	0.00017	0.00320	0.02624	0.00460
2015-06-29	-0.01589	0.02355	0.02953	0.04025	0.04112	0.05805	0.05319	0.01707	0.02456	0.02516	0.02929	0.02877	0.02555
2015-06-30	-0.00615	0.00282	0.00546	0.01236	0.00822	-	0.00149	0.00766	0.01907	0.00333	-	0.02201	0.00469

2015-07-01	0.00308	0.01121	0.00219	0.00736	0.00857	0.01334	0.00060	-	0.01569	0.01400	0.00632	0.01124	0.00716	0.00700
2015-07-02	0.00307	-	0.00439	0.00491	0.00503	0.00321	0.00732	-	0.02207	0.00716	0.01591	0.01893	0.00054	-
2015-07-06	-	0.00821	0.00562	0.01535	0.03311	0.02492	0.05629	0.03552	0.03330	0.02433	0.01081	0.01688	0.05179	0.00700
2015-07-07	-	0.01245	0.00719	0.00832	0.00160	0.00329	0.00709	0.00862	0.00408	0.01088	0.00245	0.03612	0.04133	0.00234
2015-07-08	-	0.01296	0.00477	0.01799	0.01654	0.01543	0.00071	0.01762	0.03231	0.01767	0.01480	0.00766	0.06896	0.04215
2015-07-09	-	0.00141	0.00242	0.01464	0.01974	0.01943	0.03010	0.02159	0.01099	0.01547	0.00602	0.00280	0.04905	0.01211
2015-07-10	-	0.00946	0.00885	0.02920	0.05207	0.04786	0.05370	0.05260	0.03040	0.02652	0.01280	0.00140	0.05021	0.01592
2015-07-13	-	0.00383	0.00687	0.00595	0.00152	0.00347	0.00919	0.00290	0.01701	0.00506	0.00365	0.00035	0.00515	0.01334
2015-07-14	-	0.00139	-	0.01180	0.00793	0.00312	0.00329	0.00377	0.00306	0.01136	0.00606	0.01563	0.00076	0.00622
2015-07-15	-	0.01011	0.00666	0.00214	0.00490	0.00382	0.00328	0.00145	0.00767	0.00738	0.00675	0.01598	0.02370	0.00077
2015-07-16	-	0.00105	-	0.00586	0.01053	0.00796	0.01367	0.01295	0.00401	0.00607	0.00312	0.00140	0.01912	0.00387
2015-07-17	-	0.01235	-	0.00213	0.00262	0.00484	0.00324	0.00459	0.02537	0.00422	0.00747	0.00492	0.00933	0.00231
2015-07-20	-	0.02154	0.00079	0.00053	0.00300	0.00484	0.00904	0.00487	0.01213	0.00159	0.00052	0.00282	0.00437	-
2015-07-21	-	0.00615	0.00634	0.00641	0.00149	0.00380	0.00257	0.00114	0.00481	0.00265	0.00087	0.02868	0.00551	0.00309
2015-07-22	-	0.00869	0.00119	0.00807	0.00449	0.00695	0.00258	0.00229	0.02688	0.01712	0.02368	0.00730	0.01277	0.00465
2015-07-23	-	0.01429	0.00278	0.01304	0.00112	0.00105	0.00065	0.00343	0.04156	0.01167	0.00089	0.00883	0.00019	-

2015-07-24	-0.00666	-	0.01377	0.00677	0.01441	0.00779	0.01501	0.02495	0.01264	0.01749	0.00900	0.01119	0.00937
2015-07-27	-0.01724	0.01929	0.00445	0.01100	0.01139	0.02040	-	0.01592	0.02208	0.01226	0.03096	0.04543	0.00393
2015-07-28	0.01127	0.00526	0.01603	0.01100	0.01104	0.02754	0.01099	0.01697	0.00028	0.00971	-	0.01750	0.00471
2015-07-29	0.01484	0.01284	0.00765	0.00113	0.00071	0.00844	0.00375	0.01944	0.00564	0.00600	0.03105	0.01347	0.00391
2015-07-30	-0.00888	0.00080	0.00597	0.00151	0.00569	0.00131	0.01396	0.02014	0.01672	0.00181	0.00075	0.01367	0.00156
2015-07-31	0.00037	0.00283	0.00270	0.01051	0.00958	0.01104	0.00322	0.00629	0.02036	0.02262	0.00818	0.00180	0.00776
2015-08-03	-0.01761	0.00155	0.00595	0.00261	0.00703	-	0.00291	0.02292	0.01296	0.00018	0.03082	0.01571	0.00387
2015-08-04	-0.00873	0.00878	0.00433	0.00298	0.00035	0.00974	0.01289	0.00143	0.00341	0.00177	0.00381	0.00486	0.00155
2015-08-05	-0.00574	0.00798	0.00700	0.01114	0.01116	0.01167	0.00764	0.00825	0.00539	0.01302	0.01147	0.00725	0.00620
2015-08-06	0.00115	0.00750	0.00269	0.00369	0.00035	0.00064	0.00175	0.02037	0.00141	0.00144	0.01685	0.01130	0.00310
2015-08-07	-0.00885	-	0.00269	0.00110	0.00312	0.00514	-	0.01593	0.01236	0.00910	0.00328	0.01029	0.00310
2015-08-10	0.01876	-	0.00752	0.01099	0.01313	0.01779	0.01565	0.03522	0.01000	0.00972	0.01627	0.02263	0.01458
2015-08-11	-0.01644	-	0.01185	0.01358	0.02291	0.00886	0.00924	0.02741	0.02406	0.02566	-	0.01244	0.01767
2015-08-12	-0.00968	0.00772	0.00380	0.01152	0.01059	0.00573	0.00116	0.00781	0.00227	0.00761	0.01400	0.01946	0.00622
2015-08-13	-0.01530	0.00964	0.00491	0.00374	0.00605	0.00128	0.00993	0.02304	0.02238	0.01226	0.01356	0.00384	0.00777
2015-08-14	-0.03909	-	0.00436	-	0.00150	0.00214	0.00192	0.00323	0.00457	0.00232	0.00037	0.00382	0.00383

2015-08-17	-0.02076	0.00319	0.00600	-	0.00931	0.00064	0.00502	0.00496	-0.01223	0.00184	0.00399	0.00443	0.00232
2015-08-18	-0.01267	0.00675	0.00274	0.01019	0.01121	0.01030	0.00951	0.00762	-0.00294	0.00295	0.01269	0.02206	0.00697
2015-08-19	-0.01240	0.00595	0.01604	0.00609	0.01060	0.00519	0.00090	0.02341	-0.00353	0.01861	0.02026	0.02192	0.01095
2015-08-20	-0.00995	0.01322	0.01461	0.02513	0.02795	0.03173	0.02142	0.01005	-0.00353	0.01648	0.01792	0.03021	0.03033
2015-08-21	-0.03764	0.03614	0.02812	0.01579	0.01715	0.01830	0.01505	0.03561	-0.02711	0.03558	0.03949	0.03093	0.03463
2015-08-24	-0.06093	0.04754	0.03796	0.02988	0.01472	0.03409	0.03048	0.04440	-0.03598	0.03259	0.08591	0.07426	0.03587
2015-08-25	-0.00819	0.00215	0.00362	0.00409	0.00700	0.01754	0.00191	0.00878	-0.00562	0.01078	0.01891	0.03000	0.00607
2015-08-26	-0.01249	0.02144	0.01198	0.02100	0.02563	0.03149	0.02205	0.03954	-0.03036	0.02082	0.01320	0.02547	0.03899
2015-08-27	-0.07185	0.02423	0.01594	0.00955	0.00602	0.01139	0.00807	0.04810	-0.04978	0.03809	0.05267	0.04733	0.01812
2015-08-28	-0.03193	0.00227	0.00468	0.00795	0.01057	0.01004	0.00341	0.02297	-0.00490	0.00019	0.07037	0.02629	0.00489
2015-08-31	-0.00259	0.00295	0.00526	0.00160	0.00076	0.00405	0.00685	0.02029	-0.01148	0.00798	0.01251	0.01284	0.01556
2015-09-01	-0.02934	0.02999	0.03824	0.02427	0.02460	0.02601	0.02914	0.04732	-0.01438	0.03074	0.01840	0.04712	0.04644
2015-09-02	-0.01061	0.00866	0.01870	0.01342	0.01353	0.01446	0.00513	0.00881	-0.00520	0.01222	0.02046	0.01275	0.01799
2015-09-03	-0.00919	-	0.00060	0.00081	0.00307	0.00341	0.01450	0.01204	-0.01146	0.00557	0.03304	0.00585	0.00761
2015-09-04	-0.01980	0.00215	0.02357	0.02208	0.02127	0.02483	0.01669	0.04776	-0.02451	0.01779	0.00921	0.02816	0.03254
2015-09-08	-0.01675	-	0.03486	0.02732	0.03533	0.03432	0.01831	0.02014	-0.00175	0.01549	0.00455	0.06368	0.02323

2015-09-09	-	0.00746	0.02758	-	0.00474	0.00484	0.01444	0.01290	0.00324	0.00340	0.00793	0.00791	0.00119	0.00023	0.00170
2015-09-10	-	0.00964	-	0.00886	0.01165	0.01369	0.01829	0.00938	-	0.01458	0.01434	0.00791	0.00835	0.00405	0.00085
2015-09-11	-	0.00435	0.01518	0.00295	0.00320	-	0.00134	0.00549	0.01086	0.00524	0.00289	0.01567	0.00715	0.00085	
2015-09-14	-	0.00435	0.00339	0.01127	0.01210	0.00492	0.01558	0.01041	0.03729	0.00263	0.00538	0.00822	0.01007	0.00256	
2015-09-15	-	0.00175	0.00927	0.00773	0.00768	0.00454	0.01491	0.00847	-	0.00760	0.00870	0.00954	0.02606	0.01163	0.00766
2015-09-16	-	0.01086	-	0.02283	0.01359	0.00377	0.00737	0.01449	0.03458	0.02678	0.02678	0.00391	0.02936	0.00844	
2015-09-17	-	0.00946	0.02335	-	0.00580	0.01145	0.00638	0.00996	0.02025	0.01153	0.00225	0.00593	0.00807	0.01414	0.00084
2015-09-18	-	0.01902	0.02461	0.01762	0.03313	0.03734	0.03840	0.03086	0.06018	0.01897	0.01009	0.02005	0.02013	0.03248	
2015-09-21	-	0.00262	-	0.00059	0.00041	0.00740	0.00206	0.01105	0.00973	0.00660	0.00019	0.02295	0.01750	0.00606	
2015-09-22	-	0.01543	0.01815	0.03188	0.03009	0.03867	0.02780	0.02917	0.02747	0.03753	0.01877	0.03202	0.01638	0.01479	
2015-09-23	-	0.00848	0.00309	-	0.00084	0.00041	0.00636	0.01218	0.04244	0.02389	0.01815	0.02164	0.01643	-	
2015-09-24	-	0.00134	-	0.00061	0.00504	0.00203	0.00213	0.00341	0.03649	0.01368	0.00350	0.00332	0.00500	0.00704	
2015-09-25	-	-	0.00548	0.01172	0.00568	0.00849	0.00103	-	-	-	-	-	-	0.02441	
2015-09-28	-	0.02544	0.03449	0.02647	0.02187	0.01509	0.02209	0.00514	0.04731	0.02946	0.01801	0.01134	0.02387	0.02441	
2015-09-29	-	0.00459	-	0.00062	0.00551	0.00369	0.00718	0.01060	0.01634	0.00714	0.00994	0.00088	0.00211	0.01243	
2015-09-30	-	0.01500	0.02371	0.02283	0.01760	0.01302	0.02403	0.00880	0.04520	0.01899	0.01959	0.00088	0.02519	0.02122	

2015-10-01	0.00630	0.00173	0.00365	-0.00042	0.00852	-0.00350	0.00839	-0.00046	0.00182	-0.00175	0.02169	0.00682	0.00697	
2015-10-02	0.00581	-	0.02640	0.01771	0.01336	0.02765	0.01592	0.04805	0.02313	0.01140	-	0.03847	0.01209	
2015-10-05	0.03634	0.02692	0.01586	0.02261	0.01715	0.01421	0.02791	0.02573	0.02464	0.01903	0.04695	0.01343	0.02459	
2015-10-06	0.00557	-	0.00175	0.00756	0.00827	0.00469	0.01177	0.00969	0.01353	0.00620	0.02747	0.01343	0.00841	
2015-10-07	0.01190	0.00084	0.01673	0.00868	0.01208	0.00467	0.01631	0.01910	0.01391	0.00821	0.02596	0.03578	0.01592	
2015-10-08	0.00295	0.00253	0.01081	0.00782	0.00887	0.00862	0.00713	0.02639	0.00113	0.01439	0.00850	0.00734	0.00332	
2015-10-09	0.01919	0.01005	0.00511	0.00195	0.00841	0.00527	0.00923	0.01155	0.00534	0.00675	0.00690	0.00671	0.00248	
2015-10-12	0.01751	0.00250	0.00399	0.00312	0.00076	0.01255	0.00676	0.02243	0.00614	0.00584	0.00382	0.00147	0.00165	
2015-10-13	-	0.00464	0.00125	0.01786	0.00941	0.00919	-	0.01459	0.05324	0.02139	0.00900	0.02702	0.01204	0.01078
2015-10-14	0.00632	-	0.00868	0.00667	0.00192	0.00398	0.00561	0.01020	-	0.00405	0.00471	0.00149	0.01175	
2015-10-15	0.00335	-	0.01884	0.01012	0.01183	0.01642	0.00434	0.01261	0.01131	0.00879	0.00157	0.03565	0.02500	
2015-10-16	-	0.00883	0.00376	0.00227	0.00116	0.00456	0.00523	0.00617	0.00923	0.00645	0.00509	0.00474	0.00205	0.00493
2015-10-19	-	0.01189	0.00499	0.00341	0.00350	0.00114	-	0.00803	0.00761	0.02146	0.00363	0.02159	0.00883	0.00493
2015-10-20	-	0.00257	-	0.00228	0.00585	0.00038	0.00591	0.00654	0.01540	0.00114	0.00127	0.00081	0.00021	0.00578
2015-10-21	-	0.00990	0.00191	0.00629	0.00039	0.00266	0.00727	0.00094	0.01302	0.00890	0.00989	0.01458	0.01266	0.01316
2015-10-22	0.01118	0.00274	0.00971	0.01013	0.01583	0.00793	0.00622	0.03351	0.02055	0.01625	0.02503	0.02312	0.01218	

2015-10-23	0.01021	0.00104	0.00567	0.01538	0.01668	0.00528	0.00124	0.00296	0.01124	0.00236	0.00722	0.01780	0.00964
2015-10-26	- 0.00212	0.00392	0.00453	0.00651	- 0.00597	- 0.00031	- 0.01322	- 0.00084	- 0.00489	- 0.00489	- 0.02004	- 0.00080	- 0.00080
2015-10-27	- 0.01238	- 0.00165	- 0.01027	- 0.00888	- 0.00998	- 0.01138	- 0.01501	- 0.00560	- 0.01012	- 0.00798	- 0.02610	- 0.00760	- 0.00803
2015-10-28	- 0.00215	0.01068	0.01027	0.00387	0.00740	0.00872	0.00220	0.00867	0.00169	0.00474	0.00913	0.01181	0.00963
2015-10-29	- 0.00475	0.00041	0.00626	0.00503	0.00295	0.01006	0.00631	0.00787	0.01248	0.00495	0.00090	0.01069	0.01125
2015-10-30	- 0.00607	0.00122	0.00229	0.00078	0.00222	0.00135	0.00476	0.00394	0.00400	0.00587	0.00531	0.00317	0.00486
2015-11-02	0.00217	0.00893	0.00968	0.01424	0.01501	0.00941	0.01232	0.02462	0.00343	0.00982	0.00419	0.00968	0.00728
2015-11-03	0.00735	- -	- 0.00421	- 0.00693	- 0.00604	- 0.00031	- 0.05519	- 0.01727	- 0.01526	- 0.02117	- 0.00146	- 0.00081	- 0.00081
2015-11-04	- 0.00822	- -	- 0.00057	- 0.00771	- 0.01772	- 0.01971	- 0.00915	- 0.02659	- 0.00959	- 0.00733	- 0.00478	- 0.01081	- 0.00485
2015-11-05	- 0.01136	- 0.00081	- 0.01657	- 0.00694	- 0.00223	- 0.00413	- 0.00572	- 0.01400	- 0.00968	- 0.00992	- 0.01118	- 0.00475	- 0.00727
2015-11-06	0.00220	0.00121	0.01101	0.00771	0.00037	0.00618	0.00255	0.01483	0.01180	0.01131	0.00116	0.00640	0.00242
2015-11-09	- 0.00837	0.01141	0.00760	0.01443	0.01648	0.01588	0.01254	0.03119	0.01606	0.01776	0.02179	0.02115	0.00404
2015-11-10	- 0.00221	0.00327	0.00176	0.00433	0.00265	0.00555	0.00486	0.01782	0.00177	0.00242	0.00249	0.00637	0.01047
2015-11-11	0.00707	- -	0.00528	0.00472	0.00302	0.00486	0.00033	0.02081	0.00236	0.00372	0.01850	0.00170	0.00400
2015-11-12	- 0.01508	- -	- 0.02068	- 0.01583	- 0.00682	- 0.02393	- 0.01871	- 0.02460	- 0.00886	- 0.00913	- 0.05096	- 0.00106	- 0.00962
2015-11-13	- 0.00988	- 0.02690	- 0.00779	- 0.01083	- 0.00993	- 0.00143	- 0.00432	- 0.01961	- 0.00894	- 0.00789	- 0.02609	- 0.01696	- 0.00485

2015-11-16	-0.00135	0.00042	0.01966	0.00883	0.00803	0.00923	0.00862	0.03094	-	0.01033	0.00091	0.01696	0.00967
2015-11-17	-0.00999	-	0.00412	0.00279	0.00456	0.00212	0.00033	0.00334	0.01600	-	0.03246	0.00512	0.00240
2015-11-18	0.01135	-	0.01110	0.00913	0.01206	0.00353	0.00985	0.03011	0.00939	0.00967	0.00567	0.00979	0.00479
2015-11-19	-0.00316	0.02035	0.00810	0.00276	0.01043	0.00211	0.00910	0.02091	0.00421	0.01505	0.00755	0.00190	-
2015-11-20	0.00587	0.00737	0.00985	0.00831	0.00446	0.00991	0.01434	0.01383	0.01549	0.01123	0.03331	0.01511	0.00477
2015-11-23	-0.01451	-	0.00818	0.00837	0.00523	0.00497	0.00659	0.02504	0.01970	0.00542	0.02115	0.00815	0.00477
2015-11-24	0.00501	-	0.00059	0.00723	0.00676	0.00568	0.00494	0.01518	-	0.00127	0.01121	0.00021	0.00477
2015-11-25	-0.01188	0.00204	0.00701	0.00603	0.01310	0.01132	0.00726	0.04748	0.00696	0.00838	0.00756	0.00336	0.00636
2015-11-27	-0.01017	-	0.00058	0.00799	0.01036	0.01120	0.00529	0.03038	0.01314	0.00753	0.02493	0.02603	0.00480
2015-11-30	0.00093	-	-	0.00199	0.00294	0.00139	0.00329	0.03576	0.00246	0.01242	0.00194	0.01054	0.00805
2015-12-01	0.00463	0.00203	0.00985	0.00357	0.00073	0.00208	0.01273	0.00266	0.00680	0.01500	0.00483	0.00427	0.01523
2015-12-02	-0.02053	0.00693	0.01451	0.01274	0.01627	0.01537	0.01635	0.02450	0.00967	0.01799	0.03433	0.00834	0.00799
2015-12-03	0.00094	0.01402	0.01236	0.00805	0.00598	0.00772	0.00329	0.03273	0.00780	0.01737	0.00696	0.00646	0.00967
2015-12-04	0.01913	0.01688	0.00708	0.01324	0.00970	0.01457	0.01500	0.01815	0.00062	0.00551	0.00198	0.01054	0.00565
2015-12-07	-0.01256	0.00286	0.01123	0.00080	0.00223	0.01387	0.01631	0.00812	0.01503	0.02144	0.08235	0.01032	0.00242
2015-12-08	-0.02272	0.00987	0.01860	0.01365	0.01757	0.02046	0.01859	0.00086	0.01174	0.01678	0.00064	0.01415	0.01300

2015-12-09	0.01048	-0.00789	0.00121	-0.00812	0.00454	0.00356	0.00501	0.02500	0.00795	0.00059	0.00216	-0.00903	-0.01151
2015-12-10	-0.00427	0.00623	0.00303	-0.00204	0.00038	-0.00641	0.00602	0.04318	0.00508	0.00691	-	0.00644	0.00906
2015-12-11	-0.01341	0.02219	0.01837	-0.01689	0.02414	0.01876	0.01555	0.01852	0.01281	0.02446	0.00408	0.02845	0.01570
2015-12-14	-0.01262	0.00509	0.00310	-0.00125	0.00116	0.00292	0.00478	0.00357	0.00517	0.00445	0.02462	0.01229	0.00912
2015-12-15	0.00438	0.01394	0.00495	0.00991	0.01120	0.01450	0.01191	-0.00089	0.01512	0.03240	0.03771	0.01660	0.00413
2015-12-16	0.01112	0.01706	0.01652	0.01792	0.01676	0.01216	0.01577	0.02123	0.02085	0.01956	0.03111	0.01655	0.02455
2015-12-17	-0.01355	0.00870	0.01344	-0.01463	0.00303	0.01361	0.01071	0.02706	0.00933	0.00038	0.01685	0.01255	0.00975
2015-12-18	-0.01671	0.01933	0.01362	-0.01485	0.01181	0.01160	0.01458	-0.04695	0.00435	0.01566	0.02301	0.00508	0.01232
2015-12-21	-0.00646	0.00542	0.01318	-0.00332	0.00688	0.00654	0.03758	0.02288	0.00373	0.00783	0.00309	0.00442	0.00414
2015-12-22	0.00745	0.01462	0.00692	0.00619	0.00418	0.00722	0.00777	0.00912	0.00341	0.00333	0.00615	0.00288	0.00744
2015-12-23	0.01864	0.00841	0.02601	0.01633	0.01542	0.01499	0.02227	0.02826	0.01940	0.00176	0.04981	0.01469	0.01065
2015-12-24	-0.01351	0.00124	0.00183	-0.00325	-	0.00142	0.00172	0.00186	0.00981	0.00450	0.03251	0.00305	0.01230
2015-12-28	-0.02328	0.00455	0.00489	-0.00407	0.00224	0.00142	0.00828	0.01065	0.00432	0.00157	0.00254	0.01318	0.00082
2015-12-29	-0.00492	0.01155	0.00611	-0.00934	0.01153	0.00708	0.00242	0.00554	-	0.00631	0.00976	0.00199	0.01473
2015-12-30	-0.00395	0.00329	0.00673	-0.00730	0.01565	0.01493	0.00554	-0.03822	0.00621	0.01575	0.00765	0.01199	0.00570
2015-12-31	-0.00099	0.01075	-0.00986	-0.01435	-0.01629	-0.01588	-0.01788	-0.00531	-0.00656	0.00161	0.01410	0.00313	-0.00985

2016-01-04	-0.00596	0.01677	0.01624	0.01624	0.02435	0.01466	0.01353	0.03644	0.01103	0.01537	0.02569	0.03536	0.01580
2016-01-05	0.00100	0.00842	0.00252	0.00970	0.00943	0.00296	0.00864	0.01394	0.00726	0.00306	0.00194	0.00093	0.01249
2016-01-06	-0.01708	0.01521	0.01848	0.01581	0.01152	0.02703	0.01899	0.01495	0.00789	0.02065	0.02072	0.01687	0.01754
2016-01-07	-0.02151	0.01978	0.02804	0.01388	0.02018	0.01071	0.01448	0.03786	0.03549	0.03981	0.01882	0.04175	0.01528
2016-01-08	-0.00884	0.00715	0.00664	0.00833	0.00983	0.00772	0.00939	0.00470	0.01356	0.01488	-	0.01490	0.02162
2016-01-11	-0.01420	0.01640	0.00266	0.00220	0.00779	0.00233	0.00339	0.00842	0.00033	0.01401	0.01523	0.00426	0.00697
2016-01-12	-0.00905	0.01509	0.00066	0.01309	0.01581	0.01005	0.00712	0.00474	0.00233	0.00628	0.02531	0.00276	0.00522
2016-01-13	-0.01345	0.02330	0.01673	0.01926	0.02525	0.01394	0.02038	0.02341	0.00732	0.00628	0.02865	0.02178	0.00876
2016-01-14	0.00378	0.01137	0.01872	0.00880	0.01148	0.01086	0.01137	0.02498	0.00661	0.00973	0.01592	0.01297	0.01225
2016-01-15	-0.01687	0.01861	0.04055	0.03161	0.03738	0.04095	0.03803	0.03798	0.02297	0.03661	-	0.04576	0.02822
2016-01-19	0.01159	0.00086	0.00413	0.01258	0.01220	0.01784	0.00078	0.00602	0.00235	0.00290	0.04478	0.02250	0.00802
2016-01-20	-0.00609	0.00862	0.02152	0.02121	0.01814	0.03667	0.02179	0.02443	-0.00472	0.01277	0.01788	0.02940	0.03890
2016-01-21	-	0.00228	0.01394	0.00727	0.01017	0.02845	0.00996	0.02620	0.00067	0.00475	0.04646	0.00478	0.00370
2016-01-22	0.02776	0.02115	0.02932	0.03033	0.01879	0.01556	0.03084	0.04237	0.03904	0.03013	-	0.03209	0.04437
2016-01-25	-	-	-	-	-	-	-	-	-	-	-	-	-
2016-01-26	0.00430	0.01571	0.01831	0.01193	0.00872	0.02717	0.02610	0.02520	0.01273	0.01931	-	0.02075	0.02149

2016-01-27	0.00419	-0.01305	-0.00805	-0.00699	-0.00698	-0.01646	-0.00772	-0.01329	-0.00163	-0.00197	-	-	-0.01548	-0.00089
2016-01-28	0.00989	0.00317	0.01272	0.00524	-	-	-	-	-	-	-	-	-	-
2016-01-29	0.01440	0.02055	0.02172	0.01514	0.00701	0.01418	0.01992	0.06997	0.03429	0.04006	0.01353	0.02867	0.02376	-
2016-02-01	-	0.00661	0.00130	0.00043	0.00082	0.00332	0.00114	0.00252	0.00581	0.00560	-	-	0.01669	0.00611
2016-02-02	-	0.03216	0.02428	0.03037	0.03009	0.02541	0.03899	0.03872	0.06709	0.03630	0.02931	0.03131	0.02782	0.01055
2016-02-03	0.03114	0.00162	0.01398	0.01799	0.01881	0.00431	0.00708	0.05901	0.01723	0.02306	-	0.01427	0.01246	-
2016-02-04	0.02173	0.00090	0.00264	0.00347	0.00373	0.01198	0.02171	0.04123	0.02424	0.00999	0.02257	0.00976	0.00269	-
2016-02-05	0.01833	0.01447	0.01595	0.01440	0.01930	0.02671	0.00230	0.02413	-	-	-	-	-	-
2016-02-08	-	0.00789	0.01886	0.02647	0.02357	0.02532	0.03646	0.03761	0.02371	0.00554	0.02124	0.01934	0.02137	0.00183
2016-02-09	-	0.01999	0.00440	0.00968	0.00950	0.00174	0.02383	0.01691	0.01388	0.00650	0.01728	0.00288	0.01459	0.01940
2016-02-10	0.01950	0.00392	0.00069	0.00318	0.00304	0.02835	0.01291	0.02100	0.00279	0.00044	-	0.00801	0.01788	-
2016-02-11	-	0.00740	0.01718	0.01329	0.01782	0.00741	0.03021	0.02681	0.04298	-	-	-	-	-
2016-02-12	0.04469	0.01902	0.03052	0.00872	0.01087	0.02840	0.00861	0.02301	0.02345	0.02328	0.02695	0.02380	0.00868	-
2016-02-16	-	0.00094	0.02218	0.01424	0.02438	0.01375	0.02410	0.02300	0.00721	0.00547	0.01798	0.00785	0.03942	0.03585
2016-02-17	-	0.00796	0.01348	0.02264	0.02206	0.02111	0.01662	0.02287	0.03679	0.01714	0.03733	0.00490	0.01643	0.00831
2016-02-18	-	0.00234	0.00044	-	-	0.00613	0.00125	0.02370	0.02088	0.02607	0.00089	0.00188	0.04607	0.00936

2016-02-19	-0.00328	0.00524	0.00132	0.00088	0.00334	0.00892	0.00719	0.00608	0.00535	0.00084	0.00376	0.00625	0.00461
2016-02-22	0.01537	0.01429	0.00066	0.00743	0.01041	0.02827	0.01670	0.06309	0.00826	0.01721	0.01588	0.02587	0.01648
2016-02-23	-0.00649	0.00418	0.02413	0.01580	0.01840	0.02469	0.01590	0.02641	0.01899	0.01889	0.00370	0.02717	0.01648
2016-02-24	0.01018	0.00352	0.00544	0.00177	0.01274	0.00537	0.01412	0.00782	0.00390	0.00167	-	0.00156	0.01011
2016-02-25	0.00368	0.00439	0.01758	0.01320	0.01105	0.01338	0.01612	0.00147	0.00689	0.01123	0.00833	0.00416	0.01181
2016-02-26	0.00458	0.00567	0.00067	0.00482	0.00042	0.00265	-	0.01734	0.00389	0.01040	0.01320	0.00104	0.00090
2016-02-29	0.00091	0.00305	0.00201	0.00264	0.01234	0.00354	0.00120	0.02370	0.00511	0.01308	0.00055	0.00208	0.01549
2016-03-01	0.01449	0.01731	0.02522	0.02523	0.03698	0.03485	0.02951	0.05137	0.02617	0.02887	0.04345	0.03409	0.02449
2016-03-02	0.03837	0.00748	0.00523	0.00129	0.00083	0.00853	0.01463	0.02473	0.01022	0.01492	0.00365	0.01650	0.01424
2016-03-03	0.00990	0.00276	0.00844	0.01070	0.00986	0.02017	0.01479	0.07113	0.01585	0.00435	0.01977	0.00050	0.00704
2016-03-04	0.03370	0.00534	0.00644	0.00552	0.00408	0.00584	-	0.05131	0.01222	0.01104	0.01353	0.02667	0.01047
2016-03-07	0.01276	0.00312	0.00321	0.00042	0.00285	0.00925	-	0.00723	0.00028	0.00742	0.01665	0.00995	0.01047
2016-03-08	-0.01774	0.01229	0.01354	0.00935	0.01026	0.00254	0.00566	0.00442	0.01308	0.02523	0.03873	0.02269	0.00970
2016-03-09	0.02386	0.00149	0.00518	0.00511	0.00412	0.00591	0.00076	0.01117	0.00571	0.01191	0.01955	0.00374	0.00089
2016-03-10	0.00122	0.00331	0.00778	0.00212	0.00370	0.01504	0.02060	0.03010	0.00341	0.00613	0.02731	0.00799	0.00444
2016-03-11	0.01090	0.02045	0.02061	0.03006	0.03485	0.04776	0.03925	0.00729	0.00847	0.01751	0.03568	0.03448	0.02636

2016-03-14	0.00281	-0.00204	-0.00383	-0.00247	0.00516	-0.01033	-0.00286	-0.02948	-0.00169	-0.00744	-0.00753	-0.00048	-0.00433
2016-03-15	-0.01330	-0.00631	-0.01223	-0.00538	0.00437	-0.00882	-0.01585	-0.06590	-0.00934	-0.01644	-0.01525	-0.00704	-0.01304
2016-03-16	0.01490	0.00710	0.01223	0.00990	0.01540	0.00962	0.00651	0.02163	0.00990	0.02661	0.00341	0.01091	0.00175
2016-03-17	0.03110	0.00540	0.02027	-	0.00039	-	0.00719	0.08478	0.02858	0.02800	0.03348	0.00649	0.00349
2016-03-18	0.01271	0.00619	-0.00377	0.00328	0.00157	-0.00560	-0.00536	0.01315	0.00191	0.00227	0.00785	0.00930	0.00349
2016-03-21	0.00420	0.00206	0.00568	0.00739	0.00117	0.00480	0.00500	0.00410	0.00327	0.00038	0.00953	0.00544	0.00436
2016-03-22	-0.00267	0.00633	0.01210	0.00496	-	0.00320	0.00575	0.00074	0.00546	0.00320	0.03628	0.00710	0.00607
2016-03-23	-0.01618	0.01415	0.01095	0.00707	0.00353	0.02269	0.01634	0.04792	-0.02017	0.01344	0.03139	0.01533	0.01305
2016-03-24	-0.00117	0.00587	-0.00324	-0.01175	0.01028	-0.00823	-0.00735	0.00039	-0.00308	0.00248	0.00895	0.00484	0.00615
2016-03-28	-0.00585	0.00915	0.00712	0.00211	0.00278	-0.00577	0.00368	0.03820	0.00224	0.01083	0.00324	0.00749	0.01487
2016-03-29	0.01591	0.00775	0.01155	0.01629	0.01377	0.00574	0.01132	0.00225	0.00752	0.01408	0.01547	0.01220	0.01036
2016-03-30	0.01300	0.00049	0.00826	0.01358	0.01320	0.01056	0.00290	0.00448	0.01868	0.00854	0.02831	0.01205	0.00344
2016-03-31	0.00114	-	-0.00826	-0.01151	-0.00774	-0.01384	-0.01570	-0.02107	-0.00435	-0.00779	-0.01425	-0.00141	-0.01651
2016-04-01	-0.01260	0.00328	0.00961	0.00872	0.00820	0.01320	0.00590	0.02219	0.00217	0.00037	0.00471	0.00353	0.02485
2016-04-04	-0.01940	-	0.00321	0.00042	0.00471	-0.01338	-0.00706	-0.05112	-0.00434	-0.01350	-0.01022	-0.01163	-
2016-04-05	-0.00275	0.01273	0.02010	0.02192	0.02391	-0.03164	-0.02224	-0.00628	-0.01477	-0.02582	-0.01674	-0.02100	-0.02180

2016-04-06	-	0.01425	0.00244	0.01430	0.01523	0.01401	0.01637	0.00910	-	0.00870	0.00664	0.00849	-	0.01539	0.02171	0.01639
2016-04-07	-	0.03323	0.01248	0.01496	0.01907	0.02211	0.03656	0.02640	-	0.00838	0.01933	-	-	-	-	-
2016-04-08	0.03283	0.00626	0.01754	0.01613	0.01693	0.04167	0.02376	0.06213	0.01041	0.00529	0.01596	0.00918	0.02865			
2016-04-11	0.09792	0.00208	0.00514	0.00042	0.00359	0.01267	0.00717	0.02344	0.00531	0.00603	0.02644	0.01100	0.00620			-
2016-04-12	0.04731	0.00802	0.01589	0.01296	0.01266	0.00843	0.01084	0.03292	0.01821	0.01998	0.02354	0.01394	0.02283			
2016-04-13	-	0.00242	0.01098	0.01253	0.01893	0.01212	0.02508	0.02389	0.02876	0.00790	0.00645	0.00693	0.03414	0.02740		
2016-04-14	-	0.01603	0.00328	0.00125	0.00041	0.00349	0.00412	0.00036	0.01288	0.00676	0.00208	0.00182	0.00159	0.00421		
2016-04-15	0.00630	0.00082	0.00312	0.00245	0.00116	0.00082	0.00181	0.00140	-	0.00622	0.01005	0.00654	0.01280	0.00929		
2016-04-18	0.01799	0.00291	0.00872	0.00773	0.01118	0.01549	0.00794	-	0.03054	0.00837	0.00153	0.00245	0.00733	0.00761		
2016-04-19	0.03867	0.00200	0.01782	0.01728	0.02536	0.00726	0.01605	0.03890	0.02023	0.02692	0.03849	0.01022	0.01505			
2016-04-20	-	0.00463	0.00610	0.00305	0.00120	0.00075	0.00641	0.01196	0.00941	-	0.00687	0.00149	0.01042	0.01000	0.00579	
2016-04-21	-	0.00232	0.00937	0.00736	0.00520	0.00412	-	0.00279	0.01588	-	0.00452	0.01518	0.01285	0.00756	-	
2016-04-22	-	0.00901	0.00531	0.00123	0.00201	0.00526	0.00160	0.00313	0.00249	0.01423	0.00151	0.00994	0.00438	0.00740		
2016-04-25	0.01214	0.00326	0.00369	0.00080	0.00491	0.01287	0.00592	0.01364	0.01224	0.00947	0.01367	0.00812	0.00657			
2016-04-26	0.02611	0.00326	0.00860	0.00201	0.00076	0.01925	0.01836	0.03097	0.00763	0.01511	0.00977	0.00209	0.00413			
2016-04-27	0.01117	0.00183	0.00244	0.00720	0.00566	0.00317	0.00650	0.02458	0.01456	0.01360	0.00948	0.00394	-	-		

2016-04-28	0.01202	-0.00919	0.00367	-0.00961	0.00718	0.00237	-0.01166	0.00171	0.01409	-0.01228	0.02469	-0.00907	-0.04664
2016-04-29	0.01092	-0.00907	0.00123	-0.00443	0.00570	0.00394	-0.00519	0.00748	0.00631	0.01191	0.00527	-0.01246	-0.00872
2016-05-02	-0.00480	0.00825	0.00550	0.01045	0.01137	0.00552	-0.00242	0.01881	0.00816	0.00111	0.00149	0.00403	0.01822
2016-05-03	-0.03561	0.00991	0.02157	0.01775	0.01864	0.02727	-0.02949	0.04448	0.01304	0.02780	0.04543	0.02355	0.00950
2016-05-04	-0.02765	0.00708	0.01570	0.01146	0.01275	0.00407	-0.01580	0.01540	0.00349	0.01594	0.01109	-0.01076	-0.00872
2016-05-05	-0.00686	0.00461	0.00063	0.00661	0.00624	0.00902	-0.00690	0.01757	0.00429	0.00875	0.01687	0.00319	0.00524
2016-05-06	0.01605	-0.00126	0.00253	0.00414	0.00702	-	0.00979	0.01151	0.00454	0.00312	0.00162	0.00417	0.00521
2016-05-09	-0.02991	0.00837	0.00697	0.00207	0.00349	0.01243	-0.01089	0.01732	0.03195	0.01866	0.00162	0.01612	0.00087
2016-05-10	0.03059	0.00470	0.00887	0.01192	0.01040	0.01408	-0.01233	0.05315	0.00713	0.02158	0.01212	0.01711	0.02484
2016-05-11	0.01479	-0.00678	0.00253	0.00574	0.00885	0.01075	-0.01379	0.00172	0.00055	0.00428	0.02067	0.01187	0.01879
2016-05-12	-0.01920	0.00360	0.00190	0.00288	0.00971	0.00083	-0.00292	0.00034	0.00603	0.00370	0.01018	0.00474	0.00773
2016-05-13	-0.02948	0.00816	0.00955	0.01411	0.00627	0.01340	-0.01173	0.04364	0.01356	0.01743	0.01255	0.01562	0.01378
2016-05-16	0.01116	0.00967	0.01334	0.01040	0.00705	0.01007	-0.01391	0.00681	0.01037	0.00689	0.01669	0.02457	0.01378
2016-05-17	0.00293	-0.00756	0.00126	0.01082	0.01098	0.01939	-0.00913	0.01657	0.00702	0.00314	0.00080	0.00372	0.00687
2016-05-18	-0.02438	-	0.01068	0.00167	0.00039	0.00255	-0.00403	0.02837	0.01351	0.01567	0.01211	0.00874	0.00086
2016-05-19	-0.01208	-0.00528	0.00753	0.00378	-0.00952	0.00170	-0.00697	-0.01052	0.00711	-0.01045	-0.01544	-0.00882	-0.00691

2016-05-20	-	0.00865	0.00440	0.01171	0.00833	0.00678	0.00770	0.01425	0.00768	0.00945	0.00508	0.01207	0.00691
2016-05-23	0.00236	0.00126	0.00314	0.00500	0.00515	0.00508	0.00549	0.03062	0.00198	0.00905	0.00414	0.00125	0.00431
2016-05-24	0.01664	0.01171	0.02607	0.01903	0.01654	0.02515	0.01963	0.00727	0.00142	0.00664	0.00165	0.01860	0.00775
2016-05-25	0.01630	0.00456	0.01218	0.00979	0.00972	0.01723	0.02137	0.00535	0.00765	0.00680	0.00331	0.00978	0.00684
2016-05-26	0.00034	0.00041	0.00303	0.00849	0.00886	0.00163	0.00424	0.00915	0.00787	0.00675	0.00416	0.00049	0.00085
2016-05-27	0.01323	0.00619	0.00365	0.00403	0.00307	0.00489	0.00461	0.02071	0.00140	0.00059	0.00083	0.00944	0.00256
2016-05-31	0.00376	0.00164	0.01783	0.00202	0.00270	0.00820	0.00678	0.01405	0.01354	0.01334	0.01343	0.01767	0.00766
2016-06-01	0.00342	0.00041	0.00560	0.00040	0.00116	0.00578	0.00646	0.01676	0.00199	0.00161	0.01272	0.01119	0.00085
2016-06-02	0.00273	0.00328	0.00436	0.00202	0.00154	0.00249	0.00575	0.02179	0.00369	0.00887	0.02196	0.00858	0.00853
2016-06-03	0.04007	0.00123	0.01050	0.00484	0.00460	-	0.00395	0.03054	0.02133	0.00928	0.02114	0.00047	0.00427
2016-06-06	0.00815	0.00368	0.00061	0.00361	0.00153	0.00662	0.00180	0.00256	0.01707	0.00020	0.00857	0.01344	0.01018
2016-06-07	0.00456	0.00570	0.00552	0.00759	0.01178	0.01392	0.00501	0.01092	0.00626	0.01968	0.03105	0.00700	0.00673
2016-06-08	0.00033	0.00203	0.00244	-	0.00076	0.00648	-	0.04943	0.00837	0.01795	-	0.00233	0.00585
2016-06-09	0.00261	0.00272	0.01043	0.01685	0.01829	0.01629	0.01475	0.01948	0.01299	0.02012	0.02349	0.00608	0.01174
2016-06-10	0.02469	0.00992	0.03705	0.03248	0.03362	0.04449	0.04182	0.04527	0.01815	0.03167	-	0.02518	0.01787
2016-06-13	0.01275	0.00787	0.01288	0.01601	0.01603	0.02697	0.01946	0.00923	0.01397	-	0.04028	0.01845	0.01819

2016-06-14	-	0.01018	0.00743	0.02361	0.02320	0.01179	0.01779	0.01906	0.02023	0.00141	0.01293	0.00214	0.00318	0.00438
2016-06-15	0.02059	0.00582	0.00595	0.00779	0.00327	0.00894	0.00705	0.01092	0.00786	0.01127	0.00161	0.00512	0.00961	
2016-06-16	-	0.00637	0.00041	0.00723	0.00602	0.00609	0.00355	0.00893	0.01080	0.00084	0.00352	-	0.00122	0.00436
2016-06-17	0.00704	-	0.00266	0.02138	0.01320	0.00967	0.03313	0.01990	0.01616	0.00834	0.00701	0.00125	0.00782	0.00175
2016-06-20	0.01327	0.00844	0.03959	0.02383	0.02378	0.02373	0.02100	0.02412	0.01348	0.01710	0.01734	0.01605	0.02249	
2016-06-21	-	0.00330	0.00330	0.00981	0.00986	0.00819	0.00501	0.00850	0.00638	0.00871	0.00121	0.00251	0.00817	0.00682
2016-06-22	-	0.00530	0.00165	0.01723	0.02610	0.02041	0.03476	0.02232	0.01281	0.01832	0.00040	0.01227	0.00264	0.01714
2016-06-23	0.01189	0.00904	0.02695	0.03628	0.03200	0.04883	0.03874	0.03863	0.01859	0.02274	0.01898	0.02231	0.02222	
2016-06-24	-	0.02797	0.03280	0.12742	0.12032	0.10306	0.16199	0.17777	0.04329	0.05226	0.06898	0.04382	0.05375	0.04230
2016-06-27	-	0.01566	0.02703	0.04062	0.02356	0.02456	0.02842	0.00043	0.01669	0.01872	0.02179	0.04286	0.00946	0.00531
2016-06-28	0.01970	0.01679	0.04199	0.02994	0.02030	0.03324	0.03025	0.04261	0.04186	0.02873	0.03604	0.02445	0.01496	
2016-06-29	0.02360	0.01777	0.02571	0.01754	0.01359	0.01621	0.02609	0.03985	0.01906	0.03464	0.02966	0.01885	0.01302	
2016-06-30	0.01467	0.01581	0.02637	0.01943	0.01424	0.02615	0.02104	0.01637	0.00682	0.02066	0.00315	0.01473	0.00866	
2016-07-01	0.00452	0.00206	-	0.00087	0.00291	0.00277	0.00040	0.01153	0.00920	0.00278	0.00396	0.00729	0.00174	
2016-07-05	0.00482	0.00998	0.02370	0.03151	0.03159	0.04055	0.03130	0.03330	0.00865	0.03444	0.02239	0.02035	-	
2016-07-06	0.01338	0.00046	0.00870	0.00361	0.00300	0.00870	0.00083	0.00611	0.02280	0.00617	0.00487	0.00144	-	

2016-07-07	-	0.00699	0.00021	0.00539	0.00681	0.00732	0.01862	0.00663	0.01096	0.01462	0.00186	-	-	0.00192	0.00087
2016-07-08	0.02237	0.01711	0.01142	0.01806	0.02223	0.04260	0.02627	0.04578	0.01764	0.02610	0.00325	0.01523	0.00694		
2016-07-11	0.01546	0.00286	0.01393	0.01510	0.01594	0.00849	0.00928	0.00950	0.00269	0.00742	0.01448	0.01384	0.02391		
2016-07-12	-	0.00246	0.00816	0.01892	0.01834	0.01569	0.03418	0.02732	0.00909	0.01313	0.01605	0.01254	0.01457	0.00589	
2016-07-13	-	0.01487	0.00158	0.00194	0.00518	0.00164	0.00546	0.00039	0.01347	0.00239	0.00690	0.00142	0.00576	0.00168	
2016-07-14	0.03648	0.00564	0.00838	0.01028	0.01542	0.01180	0.00855	0.01957	0.01398	0.00612	0.01955	0.01421	0.00168		
2016-07-15	-	0.00968	0.00241	0.00644	0.00813	0.00404	0.00181	0.00505	0.00094	0.00157	0.00355	0.00271	0.00228	0.00336	
2016-07-18	0.00757	0.00301	0.00580	0.00129	0.00040	0.00272	0.00156	0.01764	0.01407	0.01314	0.00210	0.00908	0.00252		
2016-07-19	-	0.00514	0.00382	0.01099	0.00907	0.01138	0.00819	0.00625	0.00367	0.00129	0.00802	0.00926	0.01549	0.00674	
2016-07-20	-	0.01589	0.00482	0.00841	0.00821	0.01259	0.00365	0.00781	0.00092	0.00310	0.00509	0.00550	0.01255	0.00842	
2016-07-21	0.00828	0.00345	0.00258	0.00172	0.00081	0.00182	0.00156	0.01074	0.00129	0.00215	0.02432	0.00182	0.00757		
2016-07-22	0.00244	0.01024	0.00194	0.00129	0.00040	0.00091	0.00116	0.01410	0.00567	0.00586	0.00817	0.00611	0.00169		
2016-07-25	-	0.01257	0.00159	0.00129	0.00043	0.00443	0.00733	0.00467	0.01348	0.00826	0.02304	0.01331	0.00748	0.00338	
2016-07-26	0.01653	0.00219	0.00129	0.00601	0.00721	0.00459	0.00039	0.00462	0.00364	0.00319	0.03522	0.01153	0.00085		
2016-07-27	0.02784	0.00419	0.00644	0.01276	0.00913	0.01002	0.01662	0.00061	0.00469	0.00541	0.00973	0.00248	0.00169		
2016-07-28	0.01232	0.00160	-	0.00321	0.00506	0.00473	0.00545	0.01079	0.01142	0.00157	0.00483	0.00164	0.00316	-	

2016-07-29	0.00117	-	0.00385	0.00670	0.00901	0.01986	0.01728	0.03117	0.00652	0.00323	0.00206	0.00453	-	0.01757
2016-08-01	0.00058	-	-	-	-	-	-	-	-	-	-	-	0.00045	0.00331
2016-08-02	0.00349	-	0.01165	0.00839	0.00805	0.00944	0.01659	0.01718	0.00957	0.00105	0.00770	0.00303	0.00478	0.01247
2016-08-03	0.00636	0.00804	-	-	-	-	-	-	-	-	-	-	-	-
2016-08-04	0.00575	0.00040	0.00386	0.00299	0.00040	0.00186	0.00750	0.02156	0.00341	0.00060	0.01077	0.00318	0.01420	-
2016-08-05	-	0.01095	0.00841	0.00064	0.00638	0.00827	0.01566	0.01172	0.01090	0.00367	0.01500	0.00963	0.01577	0.00331
2016-08-08	0.00980	0.00040	0.00128	0.00127	0.00508	0.00638	0.00349	0.00059	0.00733	0.01302	0.01639	0.00602	0.00412	-
2016-08-09	-	0.00403	0.00120	0.00128	0.00969	0.02427	0.00724	0.00963	0.01021	0.00805	0.01401	0.01117	0.00620	0.00901
2016-08-10	0.01146	0.00120	0.00128	0.00586	0.00418	0.00808	0.01068	0.00992	-	0.00482	-	0.00155	0.00326	-
2016-08-11	0.00738	0.00478	0.00891	0.00831	0.00567	0.00535	0.00341	0.02203	0.01794	0.01886	0.03967	0.02079	0.00729	-
2016-08-12	-	0.00397	0.00199	0.00190	0.00124	0.00113	0.00355	0.00189	0.01211	0.00893	0.00038	0.02002	0.00820	0.00485
2016-08-15	0.00255	0.00285	0.00127	0.00165	0.00489	0.00442	0.00264	0.01097	0.00282	0.01574	0.00077	0.01746	0.00566	-
2016-08-16	0.00254	0.00524	0.00506	-	0.00113	0.00709	0.00415	0.00720	0.00667	0.00335	0.02272	0.00275	0.00891	-
2016-08-17	-	0.00510	0.00159	-	0.00330	0.00451	0.00445	0.00531	0.00203	0.01843	0.01069	0.00489	0.00169	0.00810
2016-08-18	0.01297	0.00239	0.00942	0.00578	0.00751	0.00800	0.00190	0.00581	0.00366	0.00564	0.00645	0.00613	0.00485	-
2016-08-19	-	0.00393	0.00278	-	-	-	-	-	-	-	-	-	-	-

2016-08-22	-0.01645	0.00186	0.00063	0.00208	0.00491	0.00271	0.00383	0.02466	0.01482	0.00550	0.01504	0.00912	0.00567
2016-08-23	-0.00660	0.00503	0.00690	0.00042	0.00528	0.01610	0.00572	0.00566	0.00454	0.02424	0.00837	0.00192	0.00081
2016-08-24	-0.03010	0.00503	0.00313	0.00166	0.00339	0.00089	0.00228	0.00328	0.01118	0.00660	0.00609	0.00449	0.00081
2016-08-25	-0.00208	0.00052	0.00314	0.00500	0.00568	0.00444	0.00228	0.00658	0.00633	0.00482	0.02029	0.00021	0.00486
2016-08-26	-0.00387	0.00438	0.00631	0.00209	0.00686	0.00357	0.00419	0.01116	0.01377	0.01708	0.00351	0.00107	0.00734
2016-08-29	0.00625	0.00617	0.00379	0.00251	0.00458	0.00089	0.00229	0.02928	0.00053	0.00371	0.00577	0.00557	0.00327
2016-08-30	-0.02219	0.00147	0.00316	0.00042	0.00228	0.00357	0.00228	0.00531	0.00777	0.01020	0.00228	0.00829	-
2016-08-31	-0.03079	0.00008	0.00190	0.00209	0.00457	0.00622	0.00644	0.00773	0.01791	0.00534	0.01575	0.01000	0.00163
2016-09-01	-0.02623	0.00518	0.00632	0.00959	0.00343	0.00706	0.01238	0.00328	0.00219	0.00494	0.01175	0.00724	0.00730
2016-09-02	-0.02526	0.00795	0.02058	0.01524	0.00908	0.00876	0.01149	0.02264	0.02349	0.01487	0.02458	0.01726	0.00725
2016-09-06	-0.02116	0.00008	0.00185	0.00530	0.00564	0.00261	0.00551	0.01672	0.00824	0.01024	0.03751	0.02494	0.00560
2016-09-07	-0.00204	0.00466	0.00618	0.00203	0.00374	0.00693	0.00694	0.00057	0.00877	0.00927	0.00360	0.00449	0.00478
2016-09-08	-0.00276	0.00124	0.00041	0.00524	0.01116	0.01481	0.00400	0.00831	0.01565	0.00758	0.00713	0.00478	-
2016-09-09	-0.02777	0.02319	0.01880	0.02009	0.02200	0.02595	0.01736	0.05927	0.01437	0.03083	0.03677	0.02529	0.01609
2016-09-12	-0.00180	0.01142	0.00631	0.00784	0.00688	0.00350	0.00255	0.01976	0.00273	0.00547	0.01945	0.00685	0.00808
2016-09-13	-0.02116	0.01102	0.02289	0.02034	0.01342	0.02924	0.02692	0.05014	0.01703	0.02353	0.02912	0.01942	0.01786

2016-09-14	0.00548	-0.00243	0.00129	0.00547	-0.00039	0.00270	-0.00375	-0.00375	0.00055	-0.01313	0.00933	0.00253	-0.00657
2016-09-15	0.00485	0.01000	0.01086	0.00379	0.00808	0.00629	0.00561	0.02928	0.00937	-0.00526	0.02356	0.01606	0.00493
2016-09-16	-0.01339	0.00193	0.01537	0.01566	0.02247	0.03279	0.01959	0.00762	0.01048	0.01401	0.02514	0.00228	0.00824
2016-09-19	0.00519	0.00681	0.00771	0.00892	0.00625	0.01105	0.00418	0.00336	0.00277	0.00107	0.01379	0.00291	0.00330
2016-09-20	0.00486	-0.00120	0.00064	0.00211	0.00427	0.00920	-0.00114	0.00941	0.00744	-0.00150	0.00917	0.00042	0.01392
2016-09-21	0.02870	0.01153	0.01082	0.01341	0.01348	0.02103	0.02102	0.02801	0.02225	0.02037	0.01221	0.02688	0.02885
2016-09-22	0.00588	0.00748	0.00882	0.01488	0.01519	0.00991	0.01035	0.00732	0.01359	0.02264	0.00416	0.00987	0.01256
2016-09-23	-0.01001	0.00559	0.00882	0.00658	0.00378	0.01262	0.01221	0.01203	0.01279	0.01656	0.00911	0.01637	0.01414
2016-09-26	-0.01461	0.01215	0.01018	0.01163	0.01640	0.01187	0.01048	0.01367	0.00673	0.01557	0.01283	0.02038	0.00874
2016-09-27	-0.00723	0.00311	0.00255	-0.00042	0.00231	0.00460	0.00075	0.01544	0.00081	0.03725	0.00914	0.01302	0.01111
2016-09-28	0.01262	0.00318	0.01141	0.01246	0.00997	0.01283	0.00974	0.01753	0.00752	0.01057	0.02311	0.00675	0.00158
2016-09-29	-0.00539	0.00597	0.00759	0.01791	0.02004	0.01560	0.01729	0.02790	0.01023	0.01671	0.00478	0.01313	0.00714
2016-09-30	-0.00301	0.00704	0.00633	0.01501	0.02233	0.01924	0.01692	0.00446	0.00217	0.00350	0.00583	0.00186	0.00159
2016-10-03	-0.00060	0.00704	0.00063	0.00290	0.00420	0.00729	-0.00448	0.02720	0.00406	0.01393	0.03368	0.00227	0.00319
2016-10-04	-0.02564	0.00601	0.00315	0.00207	0.00458	0.00826	-0.00413	0.01805	0.00270	0.00487	0.01298	0.00350	0.00562
2016-10-05	-0.00558	0.00645	0.00063	0.00537	0.00418	0.01736	0.01085	0.02552	0.00297	0.01067	0.01762	0.02084	0.00642

2016-10-06	-	0.01567	0.00056	0.01012	0.00454	0.00456	0.00181	0.00522	0.00628	0.00027	0.00784	0.01386	0.00040	0.00481	
2016-10-07	0.01224	-	0.00460	0.01151	0.00581	0.00726	0.00273	0.01355	0.00907	0.00270	0.00709	0.00153	0.00935	-	
2016-10-10	-	0.00062	0.00746	0.00129	0.00498	0.00650	0.00725	0.00114	0.01150	0.00432	0.03457	0.00307	0.01580	0.00321	
2016-10-11	-	0.00721	0.01269	0.02148	0.01376	0.01072	0.01639	0.00798	0.00812	0.00511	0.00571	0.00918	0.02854	0.00885	
2016-10-12	0.00564	0.00141	-	0.00337	0.00734	0.00276	0.00076	0.00366	0.00027	0.00297	0.00842	0.00041	0.00162	-	
2016-10-13	-	0.00502	0.00536	0.00329	0.00338	0.00545	0.00739	0.00575	0.01066	0.00322	0.00696	0.00956	0.01562	0.00162	
2016-10-14	0.00063	0.00254	0.00331	0.00338	0.00506	0.00831	0.00575	0.00612	0.00509	0.00300	0.00114	0.00440	-	-	
2016-10-17	0.00251	0.00412	0.00731	0.00042	0.00389	0.00642	0.00191	0.01158	0.00294	0.00459	0.00382	0.00566	0.00081	-	
2016-10-18	0.01924	0.00754	0.01391	0.01007	0.00853	0.01812	0.01476	0.02411	0.01614	0.02614	0.01354	0.01440	0.00565	-	
2016-10-19	0.01767	0.00165	0.00328	0.00083	0.00193	0.00448	0.00674	-	0.00241	0.02000	0.01578	0.00364	0.00310	0.00322	
2016-10-20	-	0.00181	0.00406	0.00131	0.00125	-	0.00268	0.00929	0.01359	0.00309	0.01153	0.00121	0.00331	0.00879	
2016-10-21	-	0.00030	0.00121	0.00131	0.00334	0.00386	0.00089	0.00037	0.00026	0.00283	0.00366	0.00385	0.00248	-	
2016-10-24	-	0.00546	0.00403	0.00527	0.00334	0.00309	0.00622	0.01212	0.00817	0.01176	0.00346	-	0.00296	0.00454	0.00159
2016-10-25	0.00637	0.00524	0.00132	0.00376	0.00039	0.00266	0.00696	0.00288	0.01814	0.00519	0.00152	0.00392	0.00079	-	
2016-10-26	-	0.00576	0.00081	0.00531	0.00377	0.00503	0.00178	0.00074	0.00921	0.00752	0.01515	0.01609	0.00955	0.00159	
2016-10-27	-	0.00671	0.00401	0.00067	0.00293	-	0.00619	0.00733	0.00185	0.00402	0.00098	0.00080	0.00880	-	0.00159

2016-10-28	-0.00583	0.00167	0.00067	0.00667	0.00232	0.00177	0.00219	0.01011	0.00025	0.00767	0.00540	0.00888	0.00159
2016-10-31	0.01072	0.00648	-0.00067	0.00042	0.00193	0.00354	0.00036	0.00985	0.00125	0.00375	0.01325	0.00064	0.00079
2016-11-01	-	0.01411	-0.00334	0.00417	0.00775	0.00980	0.00548	0.03476	0.00401	0.02874	0.00859	-	0.00397
2016-11-02	0.01535	0.00217	0.00537	0.00670	0.00781	0.01625	0.01142	0.01770	0.00277	0.01510	0.00164	0.01649	0.00638
2016-11-03	0.00185	0.00164	0.00067	0.00042	0.00550	0.00365	0.00037	0.00897	0.00581	0.00410	0.00958	0.00130	0.00240
2016-11-04	0.00738	0.00041	0.01013	0.01141	0.00712	0.01194	0.01155	0.00423	0.01815	0.01018	0.00159	0.00847	0.01204
2016-11-07	0.01732	0.01774	0.01483	0.01518	0.01458	0.02780	0.01451	0.05261	0.02497	0.05000	0.01431	0.03114	0.00704
2016-11-08	0.00870	0.00757	0.00367	0.00418	0.00313	0.00314	0.00221	0.00722	0.01350	0.01739	0.00551	0.00590	0.00120
2016-11-09	0.00447	0.00986	0.01258	0.00333	0.00039	0.00810	0.01261	0.03331	0.00423	0.08910	0.01327	0.02490	0.00847
2016-11-10	0.00474	0.00791	-	0.00709	0.00312	0.00135	0.01617	0.08204	0.04618	0.08850	0.06732	0.01432	0.00081
2016-11-11	0.02486	0.00695	0.00959	0.01178	0.00313	0.00362	0.01992	0.02881	0.02218	0.01965	0.03374	0.01033	0.00142
2016-11-14	0.01713	0.00597	0.00466	0.00637	0.00986	0.01827	0.01363	0.00370	0.01805	0.01784	0.00428	0.01491	0.00121
2016-11-15	0.01257	0.00698	0.00533	0.00637	0.00474	0.00322	0.00976	0.03311	0.01805	0.01395	0.04345	0.01975	0.00161
2016-11-16	-0.00550	0.00039	0.01035	0.01278	0.01190	0.01575	0.01447	0.01202	0.00080	0.00403	0.02082	0.01016	0.00485
2016-11-17	0.01606	0.00731	0.00635	0.00257	0.00120	0.00093	0.00432	0.02109	0.00321	0.00789	0.00318	0.00730	0.01487
2016-11-18	0.00187	0.00192	0.01072	0.00989	0.00921	0.02508	0.01661	0.00646	0.00564	0.02845	0.00841	0.00088	0.01507

2016-11-21	0.00465	0.00517	0.01339	0.01160	0.00642	0.01049	0.00636	0.03497	0.02292	0.01478	0.01509	0.00682	0.00807	
2016-11-22	0.00740	0.00591	0.00299	0.00256	0.00279	0.01225	0.00474	0.01237	0.00793	0.00276	0.01678	0.01025	0.00241	
2016-11-23	-	0.01703	0.00228	0.00033	0.01157	0.01122	0.00375	0.01111	0.01059	0.00559	0.00413	0.00509	0.00544	-
2016-11-25	0.00530	0.00492	0.00430	0.00687	0.00643	0.00094	0.00438	0.02243	0.00107	0.00934	-	0.00804	0.00845	
2016-11-28	0.00217	0.00568	0.01262	0.00989	0.01047	0.02088	0.00918	0.02539	0.00107	0.00182	0.00847	0.00345	0.00865	
2016-11-29	-	0.00186	0.00152	0.00467	0.01544	0.00846	0.02510	0.00918	0.02116	0.00027	0.00114	0.01608	0.00602	0.00100
2016-11-30	-	0.00124	0.00456	0.00033	0.00213	0.00362	0.01716	0.00040	0.00870	0.00027	0.00159	0.01861	0.00107	0.00160
2016-12-01	-	0.00031	0.00305	0.00133	0.00043	0.00606	0.01052	0.00317	0.06189	0.00428	0.01945	0.02056	0.00862	0.00845
2016-12-02	0.01206	0.00114	0.00827	0.00299	0.00243	0.00680	0.00278	0.00633	0.01040	0.00116	0.00354	0.00717	0.00303	
2016-12-05	0.00552	0.00677	0.00722	0.02073	0.02396	0.00810	0.01771	0.01379	0.01553	0.01104	0.02193	0.00131	0.00121	
2016-12-06	0.00852	0.00235	0.00327	0.01290	0.00864	0.04127	0.02960	0.01728	0.00469	0.01454	0.00966	0.00065	0.00443	
2016-12-07	0.00695	0.01872	0.01360	0.01803	0.02320	0.02296	0.01354	0.01819	0.01880	0.01478	0.00628	0.01298	0.01476	
2016-12-08	-	0.00151	0.00296	0.00193	0.01061	0.00345	0.00295	0.00261	0.00815	0.00737	0.01215	0.00936	0.00022	0.01142
2016-12-09	-	0.00635	0.00185	0.00482	0.00287	0.00077	0.00974	0.00037	0.00577	0.00480	0.00635	0.01015	0.00647	0.00293
2016-12-12	-	0.00259	0.00418	0.00082	0.00077	0.00425	0.00260	0.01195	0.00734	0.00804	0.00473	0.02055	0.00980	
2016-12-13	0.00424	0.00517	0.00930	0.00814	0.00877	0.02305	0.01512	0.00890	0.00935	0.00108	0.01946	0.01164	0.01175	

2016-12-14	-0.01246	0.01103	0.01155	0.01553	0.01222	0.02051	0.02071	0.03800	0.03532	0.02451	0.00386	0.01940	0.01550
2016-12-15	-0.00706	0.00438	0.00162	0.00082	-	0.00926	0.00485	0.01168	0.00496	0.00111	0.00949	0.01142	-
2016-12-16	0.00031	0.00185	0.00355	0.00411	0.00422	0.00126	0.00630	0.01073	0.01265	0.01610	0.00094	0.00905	0.00874
2016-12-19	-0.01521	0.00334	0.00614	0.00494	0.00268	0.00461	0.00705	0.01341	0.00986	0.00248	0.00029	0.00273	0.00854
2016-12-20	0.00593	0.00480	0.00162	0.00371	0.00345	0.01087	0.00742	0.01341	0.00027	0.00453	0.00743	0.00046	0.00099
2016-12-21	0.00372	0.00258	0.01401	0.00041	0.00534	0.00375	0.02393	0.00732	0.00645	0.01233	0.00591	0.01260	0.01694
2016-12-22	-0.00372	0.00630	0.00362	0.00123	0.00076	0.00502	0.00569	0.00446	0.01112	0.00599	0.00365	0.01090	0.00161
2016-12-23	0.00062	0.00223	0.00165	0.00246	0.00152	0.01292	0.00531	0.02606	0.01317	0.01012	0.01093	0.00210	0.00181
2016-12-27	0.00589	0.00499	0.00099	0.00123	0.00190	0.00372	-	0.00802	0.00221	0.00597	0.00860	0.00396	0.00625
2016-12-28	0.00370	0.01244	0.00395	0.00697	0.00685	0.01496	0.01257	0.01556	0.01477	0.00643	0.01095	0.00742	0.00142
2016-12-29	0.01134	0.00298	0.00559	0.00820	0.00609	0.00917	0.00802	0.01859	0.02229	0.01115	0.01643	0.01262	0.01018
2016-12-30	-0.00061	0.00485	0.00654	0.00732	0.00530	0.00455	0.00795	0.00955	0.00613	0.00544	0.00150	0.00251	0.00041
2017-01-03	0.00941	0.00485	0.00390	0.00041	0.00076	0.01150	0.01274	0.03304	0.00482	0.00776	0.00616	0.01046	0.00815
2017-01-04	0.01469	0.01074	0.00969	0.00687	0.00602	0.00692	0.00298	0.01011	0.00134	0.01222	0.01362	0.01304	0.01990
2017-01-05	-0.01242	0.00184	0.00673	0.00922	0.01082	0.00969	0.01291	0.01171	0.01411	0.00763	0.01664	0.01859	0.00575
2017-01-06	-0.00531	0.00037	0.00641	0.00400	0.00335	0.00201	0.00183	0.01027	0.00743	0.00716	0.00520	0.00594	0.00158

2017-01-09	0.00236	-0.00593	0.00807	-0.00120	-0.00112	0.01664	-0.00184	-0.00029	-0.00856	0.01825	-0.00407	0.00374	-0.00099
2017-01-10	0.00793	0.00260	0.00323	-0.00080	-0.00037	0.00041	0.00442	0.01141	0.00509	-0.00902	0.00861	0.01505	-0.00377
2017-01-11	-0.00793	0.00074	0.00740	0.00481	0.00965	0.00571	-0.00222	0.02189	0.01143	0.00310	0.00338	0.00367	0.00654
2017-01-12	-0.00148	0.00159	0.00192	0.00359	0.00333	0.00612	0.00701	0.01077	0.01495	0.00477	0.01766	0.00432	0.00158
2017-01-13	0.00677	0.00226	0.00224	0.00477	0.00481	0.00449	0.00587	0.01327	0.00830	0.01464	0.01135	0.00303	0.00631
2017-01-17	-0.00264	0.00252	0.00128	0.00079	0.00221	0.00041	0.00293	0.00693	0.00052	0.00470	0.00382	0.00195	0.01126
2017-01-18	0.00206	0.00222	0.00447	0.00716	-	0.00245	0.00662	0.01475	0.00464	-0.01137	0.00749	0.00410	0.00020
2017-01-19	-0.00589	0.00445	0.00289	0.00160	0.00221	0.00286	0.00074	0.01309	-0.00309	0.00550	0.00150	0.00475	0.00279
2017-01-20	0.00412	0.00186	0.00096	0.00717	0.00698	0.00569	0.00332	0.01511	0.00566	0.02133	0.01341	0.00130	0.00636
2017-01-23	0.01777	0.00037	0.00894	0.00159	0.00146	0.00122	0.00111	0.02663	0.01046	0.02753	0.01360	0.00799	0.00059
2017-01-24	0.01803	0.00997	-	0.00079	0.00401	0.00888	0.00808	0.00746	0.00279	0.01427	0.00050	0.01006	0.00257
2017-01-25	0.00255	0.00987	0.01012	0.00829	0.01625	0.00121	0.01919	0.01513	0.01432	0.02224	0.01329	0.00658	0.01041
2017-01-26	-0.01741	0.00510	0.00442	0.01067	0.00467	0.01664	0.01082	0.01006	0.00626	0.02337	0.00885	-	0.00137
2017-01-27	0.00603	0.00256	0.00158	0.00159	-	0.00287	0.00145	0.00504	0.00984	0.01542	0.01041	0.00297	0.00823
2017-01-30	-0.00891	0.00441	0.01018	0.00879	0.00795	0.02577	0.01056	0.01898	-0.01173	0.00044	0.01223	0.00404	0.00276
2017-01-31	0.01148	0.00404	0.00606	0.00361	-0.00182	0.00042	0.00547	-0.00514	0.00257	0.00601	0.00331	0.00128	-

2017-02-01	0.00456	-	0.00073	0.00476	0.00200	0.00327	0.00042	0.00474	0.00783	0.00180	0.00223	0.00075	0.00021	0.00532
2017-02-02	0.01130	0.00073	-	0.00412	0.00159	0.00036	0.01090	0.00874	0.00403	0.01630	0.01590	0.01297	0.00170	-
2017-02-03	-	0.00394	0.00730	0.00095	0.00477	0.00217	0.01284	0.00650	0.00774	0.01579	0.00851	0.01280	0.00021	0.00452
2017-02-06	0.00085	-	-	-	-	-	-	-	-	-	0.01400	0.00064	0.00381	-
2017-02-07	0.00366	0.00036	0.00414	0.00847	0.00147	0.00636	0.00442	-	0.00804	0.00730	0.00347	0.00042	0.00059	-
2017-02-08	0.00532	0.00109	0.00285	0.00202	-	0.00594	0.00296	0.01474	0.00177	0.00928	0.01996	0.01449	0.00294	-
2017-02-09	-	0.00028	0.00581	0.00474	0.00765	0.00404	0.00675	0.01031	0.00373	0.01152	0.00941	0.00888	0.00851	0.00137
2017-02-10	0.01635	0.00318	0.00283	-	0.00073	0.00548	0.00846	0.02193	0.02217	0.01556	0.00335	0.00330	0.00703	-
2017-02-13	-	0.00165	0.00332	0.00533	0.00520	0.00438	0.00632	0.00442	0.00599	0.00389	0.00279	0.01289	0.00493	0.00389
2017-02-14	-	0.00552	0.00287	0.00250	0.00199	0.00036	0.00503	0.00367	0.01239	0.00145	0.00280	0.02140	0.00226	0.00720
2017-02-15	0.00028	0.00608	0.00250	0.00635	0.00182	0.00461	0.00803	0.02683	0.00290	0.00367	0.00743	0.01165	0.00098	-
2017-02-16	-	0.00416	0.00103	0.00125	0.00198	0.00544	0.00544	0.00471	0.01662	0.00436	0.00477	0.00221	0.00020	0.00117
2017-02-17	-	0.00949	0.00068	0.00281	0.01192	0.00362	0.00796	0.00945	0.00356	0.01147	0.00545	0.00354	0.00468	-
2017-02-21	0.00392	0.00993	0.00250	0.00160	0.00868	0.00168	0.00256	0.02043	0.00953	0.02995	0.00686	0.00813	0.00836	-
2017-02-22	-	0.00084	0.00177	0.00062	0.00240	0.00288	0.01059	0.00809	0.00249	0.00291	0.00255	0.00523	0.00846	0.00116
2017-02-23	-	0.00899	0.00248	0.00622	0.00160	0.00216	0.00128	0.00295	0.01506	0.00218	0.00679	0.01474	0.00301	-
														0.00097

2017-02-24	-0.01450	0.00142	0.00841	0.00881	0.01158	0.01072	0.00590	0.03055	0.01395	0.01341	0.01630	0.01215	-0.00213
2017-02-27	-0.01500	0.00247	-	0.00161	0.00327	0.02006	0.00590	0.00442	0.00271	0.00406	0.00216	0.00265	-0.00311
2017-02-28	-0.00495	0.00354	0.00219	0.00040	0.00182	0.00085	0.00441	0.02098	0.00470	0.01700	0.01653	0.00492	-0.00253
2017-03-01	0.00640	0.01057	0.00469	0.01316	0.01407	0.01594	0.01995	0.03259	0.01307	0.02571	0.00837	0.01143	0.01164
2017-03-02	-0.02260	0.00598	0.00219	0.00238	0.00539	0.00125	0.00974	0.04084	0.01009	0.01299	0.00916	0.01720	-0.00950
2017-03-03	0.00592	0.00176	0.00125	0.01732	0.00825	0.02184	0.01939	0.03053	0.00838	0.02727	0.00226	0.00453	0.00058
2017-03-06	-0.01967	0.00494	0.00658	0.00509	0.00573	0.00860	0.00071	0.01304	0.00514	0.00769	0.00131	0.00103	-0.00234
2017-03-07	-0.00211	0.00461	0.00694	0.00827	0.00396	0.00453	0.00178	0.00368	0.00487	0.00249	0.01017	0.00329	-0.00234
2017-03-08	-0.01275	0.00249	0.00476	0.00277	0.00398	0.00705	0.00178	0.03024	0.01345	0.01147	0.02697	0.00102	-0.00313
2017-03-09	-0.00797	0.00250	0.00159	0.01065	0.00650	0.01732	0.02327	0.01340	0.00370	0.01331	0.00156	0.00968	-
2017-03-10	0.00675	0.00428	0.00507	0.01248	0.00931	0.00895	0.01212	0.02179	0.00222	0.01100	0.01245	0.00536	0.00723
2017-03-13	0.00275	0.00284	0.01037	-	0.00036	0.00404	0.00276	0.00618	0.01712	0.00189	0.00275	0.01612	0.00505
2017-03-14	-0.01135	0.00427	0.00879	0.00974	0.00536	0.01423	0.01425	0.01892	0.00974	0.00486	0.01283	0.00569	-0.00700
2017-03-15	0.02227	0.01345	0.01564	0.01206	0.01282	0.02066	0.01598	0.04011	0.01675	0.03188	0.00935	0.01476	0.01010
2017-03-16	-0.01883	0.00564	0.00958	0.01039	0.00775	0.02299	0.02719	0.00789	0.01482	0.01162	0.02087	0.01157	-0.00193
2017-03-17	-0.00445	0.00177	0.00430	-	-	-	0.00471	0.00201	-	0.01652	0.00355	0.01489	0.00364
												-0.00238	-0.00329

2017-03-20	0.00682	-0.00177	0.00307	0.00115	0.00176	0.00711	0.00235	0.02073	0.00777	0.00657	0.01128	0.01382	0.00019
2017-03-21	-0.00801	0.01388	-0.00123	0.00077	0.00495	0.00040	0.00235	0.03480	0.00023	0.00517	0.01044	0.01482	0.00775
2017-03-22	0.00446	0.00393	-0.00062	0.00230	0.00035	0.00672	0.00800	0.00733	0.00023	0.00140	0.00820	0.00358	0.00136
2017-03-23	0.00237	0.00179	0.00154	0.00305	0.00495	0.00471	0.00331	0.01115	0.00468	0.01070	0.00672	0.00218	0.00078
2017-03-24	0.00059	0.00646	0.00246	0.00190	0.00632	0.00352	0.00297	0.01493	0.01253	0.01583	0.01037	0.00079	0.00619
2017-03-27	-0.00385	0.00108	0.00185	0.00720	0.00245	0.00545	0.00920	0.00297	0.00508	0.00116	0.00856	0.00376	0.00058
2017-03-28	0.00974	0.00647	0.00092	0.00226	0.00662	0.00619	0.00424	0.00404	0.01859	0.00467	0.01289	0.00357	0.00844
2017-03-29	0.00264	0.00179	0.00123	0.00226	0.00104	0.00581	0.00588	0.02130	0.00091	0.01048	0.00520	0.00020	0.00134
2017-03-30	-0.00323	0.00394	-0.00492	0.00523	0.00467	0.00624	0.01433	-0.00478	0.00329	0.00364	0.00555	0.00556	-
2017-03-31	0.00176	0.00179	0.00031	0.00605	0.00418	0.00389	0.00197	0.00107	0.00549	0.00895	0.00725	0.00699	0.00928
2017-04-03	0.00147	0.00359	0.00616	0.00227	0.00139	0.00898	0.00859	0.01168	0.00572	0.00914	0.00507	0.00838	0.00504
2017-04-04	-0.00991	0.00252	0.00154	0.00076	0.00070	-0.00166	0.00893	-0.00091	0.00058	0.00288	0.00040	0.00348	-
2017-04-05	0.00463	0.00252	0.00309	0.00682	0.00734	0.00748	0.00133	0.02194	0.00842	-0.00579	0.00060	0.00700	-
2017-04-06	-0.00463	0.00360	0.00031	0.00531	0.00035	0.00551	0.01187	0.01698	0.01373	0.00388	0.00223	0.00020	0.00509
2017-04-07	-0.00232	0.00036	0.00031	-0.00281	0.00315	0.00262	0.00596	0.00223	0.01159	0.00583	-0.00216	-	-
2017-04-10	-0.00320	0.00108	0.00186	0.00569	0.00352	0.00910	0.01123	0.00270	0.01109	0.00019	0.00719	0.00179	0.00235

2017-04-11	-0.00029	0.00036	0.01167	0.00190	0.00035	0.00318	0.00199	-0.00270	0.01086	0.00346	-	-	0.00598	0.00509
2017-04-12	-0.00791	0.00396	0.00306	0.00114	0.00211	0.00517	0.00565	-0.00216	0.00200	0.00988	0.00359	0.00379	-	0.00333
2017-04-13	-0.00738	0.00687	0.00676	0.00953	0.00884	0.01404	0.00669	-0.02274	0.00400	0.00390	0.00245	0.00439	-	0.00846
2017-04-17	0.01295	0.00903	0.00768	0.00459	0.00461	0.00685	0.00702	-0.03966	0.00596	0.01165	0.00890	0.00758	0.01061	
2017-04-18	-0.00881	0.00216	0.00399	0.00958	0.00106	0.01049	0.00200	-0.00722	0.01085	0.00464	0.00223	0.01380	-	0.00313
2017-04-19	-0.00562	0.00108	0.00771	0.00039	0.00355	0.00928	0.00633	-0.02224	0.00895	0.01210	0.00222	0.00121	-	0.00059
2017-04-20	0.00798	0.00862	0.00340	0.01756	0.00673	0.00681	0.00695	-0.00357	0.00067	0.01055	0.01077	0.01560	-	0.00606
2017-04-21	-0.01006	0.00251	0.00093	0.00076	-	0.00320	0.00165	-0.00469	-0.00248	0.00194	0.01444	0.00079	-	0.00370
2017-04-24	-0.00357	0.00964	0.01928	0.05667	0.04553	0.06058	0.05037	-0.02889	0.00293	0.01660	0.00865	0.00752	-	0.00697
2017-04-25	-0.00119	0.00531	0.00454	0.00890	0.00806	0.01049	0.00996	-0.00027	0.01198	0.00364	0.00511	0.01157	-	0.00366
2017-04-26	0.00239	0.00071	0.00151	0.00712	0.00570	0.00598	0.00871	-0.00945	0.00914	0.02038	-	0.00176	-	0.00115
2017-04-27	-0.01381	0.00071	0.00332	0.00071	0.00202	0.00677	0.00470	-0.00435	0.01108	0.00879	0.01546	0.00176	-	0.00077
2017-04-28	0.00813	0.00425	0.00332	-	0.00034	0.00113	0.00220	-0.01273	0.00349	0.00620	0.00533	0.00059	-	0.00481
2017-05-01	-0.00150	0.00053	0.00091	0.00427	0.00638	0.00453	0.00438	-0.00804	0.00047	0.00597	0.01523	0.00390	-	0.00385
2017-05-02	0.00718	0.00267	0.00722	0.00884	0.00334	0.00526	0.00993	-0.02217	0.01479	0.00536	0.01390	0.00039	-	0.00307
2017-05-03	-0.00239	0.00360	0.00692	0.00388	0.00200	0.00187	0.00062	-0.01129	0.00968	0.01462	0.00221	0.00410	-	0.00249

2017-05-04	-	0.01202	0.00139	0.00422	0.02376	0.01691	0.02774	0.02499	0.02621	0.00814	0.01504	0.01258	0.01339	0.00248
2017-05-05	-	0.01202	0.00713	0.01284	0.01746	0.01501	0.02415	0.02115	0.01853	0.00652	0.01387	0.01331	0.00336	0.00551
2017-05-08	-	0.00179	0.00142	0.00416	0.01953	0.01435	0.01326	0.01964	0.01285	0.01802	0.01014	0.00824	0.00138	0.00038
2017-05-09	-	0.00298	0.00107	0.00535	0.00486	0.00263	0.00507	0.01149	0.01842	0.00355	0.00839	0.00092	0.01799	0.00323
2017-05-10	-	0.01241	0.00745	0.00620	-	0.00099	0.00290	0.00122	0.02042	0.01225	0.01140	0.01160	0.00907	0.00457
2017-05-11	-	0.00877	0.00106	0.00147	0.00279	0.00231	0.00072	0.01345	0.00980	0.00117	0.00019	0.01218	0.00192	0.00268
2017-05-12	-	0.00638	0.00354	0.00471	0.01006	0.00921	0.00828	0.00705	0.01982	0.00536	0.00115	0.01274	0.00824	0.00249
2017-05-15	-	0.00835	0.00672	0.00556	0.00688	0.00653	0.00785	0.00913	0.01026	0.01501	0.01221	0.02363	0.00968	0.00286
2017-05-16	-	0.00259	0.00177	0.00959	0.01091	0.00907	0.01377	0.01054	0.00720	0.00046	0.00342	0.00137	0.00471	0.00076
2017-05-17	-	0.00115	0.01531	0.00638	0.01779	0.01429	0.02199	0.02212	0.03267	0.01221	0.01941	0.01594	0.01516	0.00152
2017-05-18	-	0.01421	0.00351	0.00320	0.00035	0.00163	0.00608	0.00368	0.17824	0.01967	0.01565	0.01195	0.00210	0.00266
2017-05-19	-	0.01995	0.00471	0.01010	0.01303	0.01072	0.01626	0.02370	0.06530	0.01385	0.02492	0.02099	0.01438	0.00814
2017-05-22	-	0.00229	0.00426	0.00029	0.00374	0.00194	0.00594	0.00542	0.02814	0.00163	0.00308	0.00974	0.01139	0.00057
2017-05-23	-	0.00918	0.00424	0.00316	0.00238	0.00129	0.00035	0.00991	0.02355	0.00047	0.00481	0.00140	0.00633	0.00132
2017-05-24	-	0.00087	0.00423	0.00115	0.00170	0.00097	0.00209	0.00120	0.01086	0.01092	0.01901	0.00279	0.00056	0.00151
2017-05-25	-	0.00173	0.00561	-	-	-	-	-	-	0.00162	0.00870	0.00070	0.01170	0.00264

2017-05-26	0.00058	0.00035	-0.00751	-0.00170	0.00551	0.00493	-0.00808	0.01561	0.00161	0.00795	0.00417	0.00037	0.00056
2017-05-30	-0.00492	0.00070	0.00174	-0.00205	0.00097	-0.01852	-0.00241	0.00113	0.00138	0.01922	0.00835	0.00055	0.00207
2017-05-31	-0.00203	0.00140	0.00202	0.00273	0.00647	0.00180	0.00481	-0.01047	0.00997	0.00830	0.01124	0.00833	-0.00001
2017-06-01	-0.00350	0.00764	0.00691	0.00847	0.00418	0.01319	0.00180	0.00799	0.01182	0.00964	0.01737	0.01220	0.00897
2017-06-02	0.00058	0.00276	-0.00144	0.00873	0.01719	0.00389	-0.00775	0.00115	0.00322	0.00231	0.00054	0.00073	0.02080
2017-06-05	0.00495	0.00311	0.00173	0.00907	0.00538	0.01385	0.00446	0.01094	0.00046	0.02750	0.00809	0.00165	0.00383
2017-06-06	0.00867	0.00555	0.00259	0.00575	0.00796	0.00250	0.00508	0.01180	0.00504	0.00394	0.01898	0.00459	0.00073
2017-06-07	-0.00347	0.00058	0.00203	0.00064	0.00071	0.00538	-0.00229	-0.00412	0.00319	-0.00990	0.00311	0.00037	-0.00001
2017-06-08	0.00144	0.00242	0.00376	0.00475	0.00288	0.01207	0.00683	0.00429	0.00161	0.00131	-0.00001	0.01808	0.00238
2017-06-09	0.00459	-0.01018	-0.00256	-0.00424	-0.00415	-0.01881	-0.00161	0.00037	-0.00836	-0.01353	-0.00902	-0.00001	-0.00001
2017-06-12	0.01615	0.00138	0.00469	0.00923	0.00513	0.00462	0.00776	0.01146	0.00320	0.00430	0.00627	0.00839	0.00314
2017-06-13	0.00782	0.00345	0.00586	0.00923	0.00673	0.00815	0.00657	0.00324	0.00729	0.00242	0.00808	0.00073	0.00551
2017-06-14	0.01131	0.00069	0.00263	0.00068	0.00382	0.00283	0.00537	0.01054	0.00273	0.00834	0.00116	0.00440	0.00055
2017-06-15	0.02361	0.00217	0.00824	0.01268	0.01667	0.01068	0.01538	0.01054	0.01029	0.00723	0.00069	0.01035	0.00977
2017-06-16	0.00892	0.00114	0.01087	0.01268	0.00965	0.00961	0.01268	0.00529	0.00207	0.01256	-0.00001	0.00130	0.00407
2017-06-19	0.00325	0.00824	0.00175	0.00577	0.00702	0.00106	0.00329	0.00497	-0.00497	0.00762	0.01911	0.00313	-0.00001

2017-06-20	-	0.02298	0.00790	0.03835	0.02607	0.02871	0.03062	0.02513	0.04440	0.03135	0.02542	0.02249	0.01153	0.00609
2017-06-21	0.01081	-	-	0.00091	0.00069	-	0.01055	0.00061	0.00243	0.00955	0.00417	0.02301	0.00624	0.00148
2017-06-22	0.00477	0.00243	0.00091	0.00069	0.00098	0.00508	0.00368	0.00606	0.00550	0.00946	0.00064	0.00511	0.00204	
2017-06-23	0.00593	0.00277	0.00303	0.00347	0.00033	0.00109	0.00154	0.00181	0.00642	0.00844	0.00861	0.00182	0.00074	
2017-06-26	0.00383	0.00138	0.00332	0.00346	0.00131	0.00652	0.00185	0.02864	0.00426	0.01262	0.00506	0.00796	0.00278	
2017-06-27	0.00650	0.00938	0.00060	0.00241	0.00098	0.00217	0.00918	0.01721	0.00996	0.01168	0.00290	0.00996	0.00241	
2017-06-28	0.00296	0.00765	0.00900	0.00857	0.00878	0.02148	0.01782	0.01603	0.00526	0.01389	0.02075	0.00744	0.00445	
2017-06-29	0.00533	0.00765	0.00479	0.01722	0.01632	0.01570	0.01326	0.00413	0.00336	0.01408	0.01427	0.01365	0.01005	
2017-06-30	0.00592	0.00209	0.00060	0.00104	0.00363	-	0.00395	0.00942	0.00216	0.00632	0.00043	0.00201	0.00336	
2017-07-03	0.00236	0.00729	-	0.00035	0.00066	0.00895	0.00425	0.00759	0.00503	0.00074	0.00688	0.00620	0.00486	
2017-07-05	0.00353	0.00104	0.00030	0.00035	0.00099	0.00572	0.00152	0.00145	0.01939	0.00093	0.00071	0.00145	0.00019	
2017-07-06	0.00736	0.00887	0.00451	0.00244	0.00463	0.00750	0.00030	0.01668	0.00681	0.00708	0.00202	0.01301	0.00733	
2017-07-07	0.00296	0.00818	-	0.00070	0.00463	0.00178	0.00212	0.00559	0.00494	0.01245	0.00631	0.00129	0.00057	
2017-07-10	0.00385	0.00104	0.00060	0.00313	0.00231	0.00531	0.00273	0.01717	0.01166	0.02030	0.00125	0.00624	0.00265	
2017-07-11	0.00442	0.00139	0.00393	0.00416	0.00852	0.00774	0.00334	0.01660	0.00023	0.00254	0.00233	0.01813	0.00679	
2017-07-12	0.01053	0.00761	0.01114	0.00689	0.00650	0.00664	0.00332	0.02936	0.01450	0.01638	0.01631	0.02081	0.00693	

2017-07-13	0.00029	0.00172	0.00567	0.00377	0.00130	0.00313	0.01021	0.00714	0.00910	0.00587	0.00051	0.00211	-	0.00131
2017-07-14	0.01100	0.00446	0.00889	0.00614	0.00645	0.00658	0.00358	0.00736	0.00834	0.01235	0.00650	0.01395	0.00243	
2017-07-17	0.00345	0.00240	-	-	-	-	-	-	0.00448	0.00263	0.00070	0.00591	-	-
2017-07-18	0.00515	0.00342	-	-	-	-	-	-	-	0.00122	0.00210	0.00521	0.00521	
2017-07-19	0.00143	0.00564	0.00296	0.00374	-	0.00413	0.00090	0.00027	0.00288	0.00210	0.00070	0.01274	0.00408	
2017-07-20	-	0.00314	0.00119	0.00442	0.00440	0.00615	0.00479	0.00656	0.00591	0.00066	0.00175	0.00281	0.00412	0.00369
2017-07-21	0.00228	-	0.00324	0.00712	0.01135	0.00582	0.00746	0.00779	0.00421	0.00122	0.00493	0.00103	0.00184	
2017-07-24	-	0.00029	0.00068	0.00562	0.00307	0.00229	0.00514	0.00209	0.00377	0.00089	0.00245	0.00496	0.00583	0.00203
2017-07-25	0.00795	0.00238	0.00620	0.00443	0.00098	0.00341	0.00625	0.00188	0.00599	0.00263	0.00739	0.00068	0.00351	
2017-07-26	-	0.00789	0.00306	0.00587	0.00846	0.00651	0.00747	0.00622	0.00108	0.01122	0.00908	0.00080	0.01021	0.00332
2017-07-27	-	0.00444	0.00440	0.00507	0.00847	0.00034	0.00147	0.00135	0.00482	0.01612	0.00311	0.00509	0.00331	
2017-07-28	0.00224	0.00171	0.00118	0.00102	0.00424	-	0.00588	0.00725	0.00132	0.00088	0.00769	0.00881	0.00294	
2017-07-31	-	0.00477	0.00034	0.00470	0.00204	0.00065	0.00674	0.00029	0.01091	0.00022	0.00673	-	0.00253	0.00329
2017-08-01	0.01008	0.00239	0.00672	0.00441	0.00940	0.00436	0.00584	0.00843	-	0.00107	0.00901	0.00671	0.00583	
2017-08-02	-	0.00363	0.00205	0.00087	0.00270	-	0.00401	0.00029	0.01096	0.00088	0.00266	0.00619	0.00789	0.00054
2017-08-03	0.00474	-	0.00029	0.00437	0.00323	0.00763	0.00320	0.00286	0.00154	-	0.00035	-	0.00051	0.00254

2017-08-04	-	0.00782	0.00376	0.00029	0.00536	0.00516	0.00165	0.00434	0.00339	0.00132	0.00177	0.00896	0.00387	0.00091	
2017-08-07	-	0.00056	0.01861	0.00145	0.00234	-	0.00161	0.00198	0.00231	0.01323	0.00634	0.00142	0.00208	0.01251	0.00036
2017-08-08	0.00336	0.01793	-	-	-	-	-	-	-	0.00181	0.00044	0.00213	0.00976	0.00759	0.00109
2017-08-09	0.01443	-	0.00068	0.00088	0.00538	0.00487	0.00100	0.00406	0.01038	0.00809	0.00800	0.00703	0.00230	0.00619	-
2017-08-10	-	0.01471	0.01412	0.01857	0.01153	0.01740	0.01336	0.02474	0.01922	0.00396	0.00860	0.00192	0.03301	0.01047	-
2017-08-11	0.00223	0.00035	0.00477	0.00273	0.00660	0.00641	0.00658	0.01032	0.00331	0.00771	0.00474	0.00171	0.00148	-	-
2017-08-14	0.00223	0.01241	0.00447	0.00987	0.01047	0.01178	0.01637	0.00131	0.00793	0.01242	0.00701	0.01339	0.00737	-	-
2017-08-15	-	0.00307	0.00240	0.00328	0.00068	0.00098	0.00234	0.00030	0.01020	0.00329	0.00053	0.00140	0.00135	0.00129	-
2017-08-16	0.01304	0.00377	0.00536	0.00506	0.00552	0.00466	0.00383	0.01267	0.01110	0.00650	0.01043	0.01838	0.00330	-	-
2017-08-17	-	0.00581	0.01621	0.01195	0.01287	0.01272	0.01371	0.01991	0.01841	0.00651	0.01571	0.00318	0.01703	0.00680	-
2017-08-18	0.00801	0.00139	0.00271	0.00238	0.00556	0.00805	0.00359	0.02097	0.00630	0.01132	0.00595	0.00470	0.00442	-	-
2017-08-21	0.01176	0.00139	0.00241	-	0.00327	0.00300	0.00269	0.00720	0.00733	0.00823	0.00208	0.01117	0.00221	-	-
2017-08-22	0.00244	0.00831	0.00300	0.00543	0.00978	0.00300	0.00328	0.01486	0.00450	0.00174	0.00484	0.01415	0.00202	-	-
2017-08-23	-	0.00109	0.00138	0.00090	0.00270	0.00130	0.00234	0.00238	0.01914	0.00342	0.00279	0.00207	0.00619	0.00037	-
2017-08-24	0.00460	-	0.00138	0.00030	0.00338	0.00292	0.00200	0.00060	0.00522	0.00828	0.00035	0.00069	0.00032	0.00515	-
2017-08-25	0.00162	0.00380	0.00508	0.00708	0.00970	0.00927	0.00831	-	0.00398	0.00716	0.00574	0.01509	0.00324	0.00332	-

2017-08-28	0.00806	-	0.00121	0.00149	0.00034	0.00064	0.00395	0.00207	-	0.00150	0.01251	0.01751	0.01095	0.00797	0.00110
2017-08-29	-	0.00161	0.00052	0.00238	0.00438	0.01196	0.00725	0.00445	0.00150	0.00145	0.00053	0.01231	0.00016	0.00202	-
2017-08-30	-	0.00403	0.00241	0.00089	0.00372	0.00293	0.00597	0.00358	0.00374	0.01627	0.00458	0.01025	0.00780	0.00055	-
2017-08-31	0.00751	0.00481	0.00771	0.00608	0.00358	0.00762	0.00685	0.00025	0.01275	0.00671	0.00821	0.00388	0.00789	-	-
2017-09-01	0.00957	0.00513	0.00442	0.00336	0.00292	0.00461	0.00089	0.01513	0.00662	0.00512	0.00340	0.00193	0.00403	-	-
2017-09-05	0.00422	0.00925	0.00798	0.00707	0.00260	0.00693	0.01704	0.00907	0.00496	0.02137	0.00811	0.01296	0.00441	-	-
2017-09-06	0.01309	0.00034	0.00385	0.01042	0.01612	0.01217	0.00211	0.02196	0.00541	0.01110	0.00470	0.00456	0.00423	-	-
2017-09-07	-	0.00312	0.00172	0.00882	0.00866	0.01145	0.00294	0.00540	0.00761	0.01140	0.00409	0.00605	0.00680	0.00586	-
2017-09-08	-	0.00497	0.00378	0.00263	-	0.00127	0.00098	0.00150	0.00689	0.01057	0.00980	0.00806	0.00777	0.00310	-
2017-09-11	0.01121	0.01161	0.00640	0.00825	0.01102	0.01168	0.01635	0.01492	0.00933	0.01015	0.00200	0.02090	0.00454	-	-
2017-09-12	-	0.00182	0.00237	0.00492	0.00525	0.00250	0.00354	0.00029	0.00424	0.00186	0.00337	0.00200	0.00254	0.00072	-
2017-09-13	-	0.00416	-	0.00783	0.00623	0.00438	0.00774	0.00355	0.00071	0.01139	0.00624	0.00201	0.00238	0.00199	-
2017-09-14	-	0.00237	0.00436	0.00460	0.00219	0.00356	0.00030	0.00611	0.00747	0.00428	0.00148	0.00079	0.00018	-	-
2017-09-15	-	0.00287	0.00169	0.00058	0.00066	0.00219	0.00258	0.00059	0.01604	0.00495	0.00125	0.00949	0.00868	0.00145	-
2017-09-18	-	0.00052	0.00404	0.00029	0.00164	0.00250	0.00610	0.00266	0.00509	0.00062	0.00268	0.00133	0.00954	0.00018	-
2017-09-19	0.00366	-	0.00034	0.00520	0.00522	0.00342	0.00733	0.00735	0.00162	0.00738	0.00466	0.00067	0.00187	0.00578	-

2017-09-20	-0.00470	-	0.00144	0.00228	0.00311	0.00350	0.00972	0.00301	0.00306	0.00377	-	0.00171	0.00036	
2017-09-21	0.00105	-0.00101	0.00115	0.00325	0.00062	0.00159	0.00118	0.01329	0.00325	0.00233	0.01648	0.00016	0.00397	
2017-09-22	0.00105	0.00134	0.00374	0.00389	0.00187	0.00254	0.00178	0.00258	0.00081	0.00465	0.00711	0.00703	0.00108	
2017-09-25	0.00495	0.00201	0.00605	0.00943	0.01030	0.01245	0.01700	0.02224	0.01328	0.00717	0.01116	0.03103	0.00216	
2017-09-26	-0.00469	0.00369	0.00289	0.00426	0.00283	0.00322	0.00846	0.00264	0.00951	0.00324	-	0.00226	-	
2017-09-27	0.00104	0.00436	0.00087	0.00033	0.00251	0.00258	0.01923	0.01840	0.00290	0.01803	0.00374	0.00771	0.00198	
2017-09-28	0.00909	0.00134	0.00318	0.00328	0.00501	-	0.00418	0.00122	0.00331	0.00037	0.00169	0.00481	0.00072	
2017-09-29	0.00336	0.00134	0.00518	0.01074	0.01304	0.00833	0.00833	0.01742	0.00350	0.00312	-	0.01421	0.00018	
2017-10-02	0.01484	0.00766	0.00259	0.00227	0.00247	0.00255	0.01794	0.00072	0.00390	0.00110	0.00242	0.00522	-	
2017-10-03	0.02484	0.00262	0.00259	0.00388	0.00370	0.00032	0.00151	0.03440	0.02088	0.00310	-	0.02368	0.00591	
2017-10-04	0.00420	0.00202	0.00086	0.00129	0.00031	0.01611	0.03131	0.00324	0.00600	0.00365	0.00635	0.00123	0.00018	
2017-10-05	0.01591	0.00329	0.00489	0.00032	0.00031	0.00259	0.02098	0.00463	0.00458	0.01178	0.00387	0.01348	0.00054	
2017-10-06	-0.00903	0.00033	0.00144	-	0.00031	0.00324	0.00366	0.01166	0.00317	0.00799	0.00544	0.00656	0.00054	
2017-10-09	-0.00245	0.00230	0.00202	0.00162	0.00062	0.00098	0.00425	0.01465	0.00615	0.00975	0.00273	0.00077	0.00125	
2017-10-10	-0.00443	0.00230	0.01231	0.00968	0.00706	0.01036	0.01563	0.01934	0.01010	0.00871	0.00194	0.00990	0.00711	
2017-10-11	0.00320	0.00033	-	0.00192	0.00580	0.00770	0.00030	0.00280	0.00511	0.00644	-	0.00330	0.00395	0.00512

2017-10-12	0.00906	0.00033	0.00227	0.00192	0.00122	0.00995	0.00389	0.00420	0.00413	0.00930	0.00272	0.00564	0.00123	
2017-10-13	0.00583	0.00131	0.00312	0.00257	-	0.00032	0.00210	0.01347	0.00667	0.00612	0.00137	0.00701	0.01227	
2017-10-16	0.00844	-	0.00340	0.00097	0.00213	0.00194	0.01208	0.00927	0.00935	0.01236	0.00410	0.00470	0.00452	
2017-10-17	-	0.00699	0.00164	0.00484	0.00161	0.00153	0.00714	0.00364	0.00701	0.00622	0.02570	0.00068	0.00865	0.00104
2017-10-18	0.00145	0.00066	0.00143	0.00547	0.00549	0.00455	0.00874	0.00141	0.00234	0.01047	0.00410	0.00926	0.00104	
2017-10-19	-	0.00097	0.00197	0.00457	0.00128	0.00243	0.00292	0.00421	0.00469	0.00078	0.00553	0.00205	0.01768	0.00226
2017-10-20	0.00483	0.00686	0.00086	0.00514	0.00581	0.00033	0.00332	0.00566	0.00098	0.01129	0.00961	0.00751	0.00226	
2017-10-23	0.00767	-	0.00258	0.00129	0.00307	0.00522	0.01339	0.02467	-	0.01200	0.00831	0.00966	0.00243	
2017-10-24	0.00619	0.00325	0.00258	0.00386	0.00368	0.01492	0.00915	0.00653	0.00511	0.00583	0.00768	0.00077	0.00829	
2017-10-25	-	0.00190	0.00423	0.00057	0.00064	0.00031	0.00355	0.00121	0.00911	0.00059	0.01896	0.00210	0.00479	0.00812
2017-10-26	-	0.00333	0.00455	0.00489	0.00096	0.00153	-	0.00424	0.03030	0.00752	0.00892	0.00634	0.00326	0.00536
2017-10-27	-	0.00239	0.00421	0.00087	0.00096	0.00153	0.01105	0.01767	0.02239	0.00890	0.00892	0.01352	0.01313	0.00756
2017-10-30	-	0.00072	0.00453	0.00317	0.00320	0.00457	0.00749	0.02758	0.03403	0.00550	0.01051	0.01080	0.00770	0.00034
2017-10-31	0.00120	0.00065	0.00773	0.00287	0.00546	0.00388	0.01159	0.00025	0.00117	0.00358	0.00727	0.00969	0.00427	
2017-11-01	0.00525	0.00195	0.00543	0.00128	0.00843	0.00548	-	-	0.00293	0.00498	0.00292	0.00687	0.00561	
2017-11-02	0.00664	0.00356	-	0.00086	0.00382	0.00449	0.00959	0.00059	-	0.00665	0.00458	0.00219	0.00152	0.00119

2017-11-03	0.00118	0.00129	0.00029	-	0.00382	0.00329	0.00670	0.01701	-	0.01490	0.01264	-	0.00358	-	0.00880	-	0.00030	0.00237	
2017-11-06	0.00659	0.00193	0.00629	-	-	0.00096	0.00150	-	0.00301	0.02636	0.01048	0.01838	0.00221	0.01478	-	-	0.00017	-	
2017-11-07	-	0.01559	-	-	-	-	-	-	-	-	0.01167	0.00609	0.00586	0.00359	0.00791	-	-	-	-
2017-11-08	0.00333	0.00257	0.00057	0.00032	0.00332	0.00451	0.00244	0.02870	0.00298	0.00177	0.00800	0.00223	0.00618	-	-	-	-	-	
2017-11-09	-	0.00476	0.00580	0.00230	0.00937	0.01091	0.00421	0.00336	0.01727	0.00937	0.00217	0.00434	0.00194	0.00837	-	-	-	-	-
2017-11-10	-	0.01368	0.00032	0.00202	0.00130	0.00244	0.00130	0.00214	0.01989	0.00804	0.02030	0.00072	0.00476	0.00742	-	-	-	-	-
2017-11-13	-	0.00801	0.00322	0.00753	0.00653	0.00214	0.00652	0.00276	0.00309	0.00872	0.00020	0.00942	0.00030	0.00441	-	-	-	-	-
2017-11-14	-	0.00709	0.00097	0.00087	0.00555	0.00549	0.00163	0.00215	0.03156	0.01291	0.00686	0.00511	0.01210	0.00528	-	-	-	-	-
2017-11-15	-	0.01036	0.00484	0.00495	0.00391	0.00733	0.00622	0.00276	0.00739	0.00683	0.00487	0.00292	0.00709	0.00738	-	-	-	-	-
2017-11-16	-	0.00050	0.01031	0.00495	0.00814	0.00794	0.00197	0.00701	0.03209	0.02015	0.01253	0.00727	0.02170	0.01538	-	-	-	-	-
2017-11-17	0.01233	0.00032	0.00087	0.00422	0.00488	0.00493	0.00579	0.01441	0.01876	0.00960	0.01152	0.00044	0.00493	-	-	-	-	-	-
2017-11-20	0.00073	0.00352	0.00174	0.00098	0.00061	0.00132	0.00767	0.00900	0.06821	0.00519	0.00646	0.01206	0.00493	-	-	-	-	-	-
2017-11-21	0.00975	0.00319	0.00376	0.00585	0.00943	0.00887	0.00062	0.00595	0.01844	0.02039	0.01004	0.02270	0.00911	-	-	-	-	-	-
2017-11-22	0.00604	0.00255	0.00748	0.00452	0.00668	0.00652	0.00859	0.01058	0.01140	0.00781	0.00711	0.00172	0.00067	-	-	-	-	-	-
2017-11-24	0.00433	0.00128	0.00200	0.01568	0.01512	0.01195	0.01275	0.00319	0.01498	0.00331	0.00355	0.00560	0.00819	-	-	-	-	-	-
2017-11-27	-	0.00843	0.00032	0.00574	0.00605	0.00602	0.01097	0.00121	0.00344	0.01084	0.01098	0.00857	0.01904	0.00434	-	-	-	-	-

2017-11-28	-0.00315	0.01109	0.01002	0.00351	0.00301	0.00227	0.00782	0.01005	0.00196	0.00590	0.00792	0.00775	0.00301
2017-11-29	-0.00365	0.00283	0.00228	0.00191	0.00271	0.00162	0.00806	0.03323	0.01800	0.00352	0.00361	0.02522	0.00200
2017-11-30	0.00024	0.00376	0.00029	-	0.00331	0.00582	-	0.02450	0.00511	0.01953	0.00431	0.01081	0.00100
2017-12-01	-0.00073	0.00188	0.00257	0.00608	0.00876	0.00485	0.00776	0.00849	0.00489	0.00537	0.00431	0.01414	0.00452
2017-12-04	-0.01945	0.00440	0.00315	0.00256	0.00333	0.00065	0.00150	0.01551	0.00622	0.00198	-	0.00414	0.01062
2017-12-05	-0.00874	0.00347	0.00172	0.00417	0.00424	0.00097	0.00451	0.00227	0.02643	-	0.00216	0.00447	0.00254
2017-12-06	-0.00806	0.00095	0.00144	0.00129	0.00152	0.00324	0.00483	0.01206	0.00920	0.01581	0.00504	0.01321	0.00373
2017-12-07	-0.00355	0.00537	0.00259	0.00353	0.00455	0.00583	0.00724	0.02479	0.00046	0.00465	0.00725	0.00608	0.00643
2017-12-08	0.00279	0.00753	0.00716	0.00256	0.00363	0.01284	0.00779	0.00102	0.00896	0.01389	0.00869	0.01880	0.00471
2017-12-11	0.00126	0.00062	0.00342	-0.00032	0.00060	0.00032	0.00090	0.00205	0.01589	0.00662	0.00432	0.01184	0.00335
2017-12-12	0.00202	0.00156	0.00284	-	0.00151	0.00512	0.00329	0.02526	0.00337	0.00504	0.00432	0.01398	0.00184
2017-12-13	-0.00578	0.00125	0.00565	0.00032	0.00030	0.00934	0.00090	0.03451	0.03658	0.01883	0.00718	0.01849	0.00400
2017-12-14	-0.04146	0.00754	0.00254	0.01062	0.00576	0.01303	0.00873	0.01090	0.00690	0.00737	0.00642	0.01300	0.00467
2017-12-15	-0.02086	0.00848	0.00170	0.00065	0.00425	0.00394	0.00151	0.01168	0.01853	0.00040	0.00678	0.00183	0.00050
2017-12-18	0.03744	0.00810	0.01098	0.01253	0.01532	0.01536	0.01234	0.01180	0.09857	0.01548	0.01598	0.00971	0.01195
2017-12-19	-0.01033	-0.00373	0.02037	-0.00352	0.00269	0.00618	0.01295	0.01154	0.00845	0.02573	0.00424	0.01720	-0.01680

2017-12-20	0.01059	0.00093	0.00029	-	0.00321	0.00901	0.00360	0.00061	0.00129	0.01027	-	0.00364	0.00424	-	0.00046	0.00134
2017-12-21	0.01479	-	0.00938	0.00655	0.00289	0.00060	0.00360	0.00333	0.01812	0.00998	-	0.01224	0.00422	0.01827	0.00067	
2017-12-22	0.03042	0.00031	0.00340	0.00064	0.00211	0.00261	0.00606	0.00051	0.01658	0.01136	0.00420	0.00736	0.00468			
2017-12-26	-	0.00715	-	0.00028	0.00096	-	0.00195	0.00030	0.01208	0.00077	0.00604	0.00471	0.00510	0.00050		
2017-12-27	0.00124	0.00220	0.00396	0.00032	0.00241	0.00391	0.00213	0.00300	0.00039	0.01307	0.00017	0.00407	0.00133			
2017-12-28	0.00910	0.00250	0.00422	0.00128	0.00090	0.00033	0.00122	0.00497	0.01154	0.00144	0.00174	0.00347	0.00234			
2017-12-29	0.00318	0.00658	0.00588	0.00160	0.00393	0.00785	0.00152	0.00347	0.00268	0.01472	0.00222	0.00211	0.00184			
2018-01-02	0.02029	0.00533	0.00917	0.00224	0.00724	0.00622	0.01093	0.02995	0.03003	0.02187	0.01737	0.03819	0.00599			
2018-01-03	0.00786	0.00841	0.00166	0.00510	0.00510	0.00033	0.00151	0.01216	0.00019	0.00020	0.01285	0.00792	0.01367			
2018-01-04	0.00284	0.00495	0.00387	0.01577	0.01632	0.02863	0.02324	0.00661	0.00427	0.00159	0.00803	0.00615	0.01220			
2018-01-05	0.01012	0.00616	0.00441	0.00935	0.01025	0.01010	0.00675	0.00867	0.00867	0.01045	0.00057	0.00711	0.00274			
2018-01-08	-	0.01083	0.00398	0.00110	0.00342	0.00292	0.00189	0.00646	0.00398	0.00312	-	0.00523	0.00494	0.00579		
2018-01-09	-	0.00498	0.00031	0.00083	0.00528	0.00029	0.00471	0.00029	0.00776	0.00495	0.00768	0.01202	0.00056	0.00064		
2018-01-10	0.00640	0.00398	0.00110	0.00559	0.00881	0.00469	0.00382	0.00071	0.00479	0.02219	0.00118	0.00395	0.00639			
2018-01-11	0.00683	0.00703	0.00631	0.00682	0.00471	0.01454	0.01282	0.01850	0.01140	0.00444	0.01120	0.00254	0.00666			
2018-01-12	0.00912	0.00668	0.01466	0.01351	0.01254	0.01584	0.01208	0.00301	0.00547	0.01972	0.00597	0.01526	0.00316			

2018-01-16	0.00325	-	0.00421	0.00135	0.00274	0.00145	0.00242	0.00684	0.00348	-	0.00986	0.01915	-	0.00331	-	0.00893	-
2018-01-17	-	0.00139	0.01235	0.00485	0.00334	0.00260	0.00751	0.00142	0.01794	0.00950	0.01097	0.00166	0.01489	0.00800			
2018-01-18	0.00925	-	0.00421	-	0.00121	0.00576	0.00209	0.00285	0.00228	0.00923	0.00725	0.01739	0.00179	0.00848			
2018-01-19	0.00069	0.00571	0.00134	0.00575	0.01113	0.00655	0.00455	0.01153	0.00288	-	0.00266	0.00784	0.01165	0.00629			
2018-01-22	0.00184	0.00508	0.00854	0.00602	0.00622	0.00945	0.01438	0.00359	0.00054	0.00133	0.00719	0.00692	0.00422				
2018-01-23	-	0.00414	0.00208	0.00106	0.00060	0.00534	0.00088	0.00084	0.02197	0.01357	0.00057	0.00649	0.01464	0.00607			
2018-01-24	0.01782	0.00149	0.00451	0.00090	0.00253	0.00206	0.00502	0.05979	0.00690	0.02631	0.04799	0.00266	0.00031				
2018-01-25	-	0.00363	0.00030	0.00663	0.00120	0.00706	0.00471	0.00416	0.01073	0.00847	0.00819	0.00431	0.00680	0.00482			
2018-01-26	0.00679	0.01038	0.00822	0.01133	0.00649	0.01051	0.00415	0.01019	0.00679	0.01097	0.00492	0.02682	0.00729				
2018-01-29	-	0.00407	0.00948	0.01062	0.00863	0.00933	0.00992	0.01194	0.02006	0.00500	0.01397	0.01617	0.01948	0.00854			
2018-01-30	0.01668	0.01410	0.00481	0.00660	0.00798	0.01358	0.01039	0.00173	0.00701	0.01284	0.00377	0.01878	0.01287				
2018-01-31	-	0.00323	0.00121	0.00376	0.00331	0.00229	0.00415	0.00479	0.00603	0.00916	0.00889	-	0.01305	0.00570			
2018-02-01	0.00737	0.00151	-	0.00509	0.00889	0.01148	0.00476	0.00279	0.00375	0.01773	0.01809	0.02299	0.00491				
2018-02-02	-	0.03123	0.01834	0.02424	0.02815	0.02451	0.02880	0.02892	0.03618	0.01887	0.02207	0.03650	0.01933	0.01481			
2018-02-05	-	0.01191	0.03564	0.04887	0.04426	0.04192	0.04592	0.04111	0.03615	0.02610	0.04249	0.01941	0.03015	0.04849			
2018-02-06	0.00359	0.01128	0.02176	0.02785	0.03093	0.03623	0.02341	0.03748	0.02447	0.02648	0.00391	0.02048	0.02397				

2018-02-07	-	0.02612	0.00126	0.01025	0.01763	0.01717	0.01347	0.01952	0.03129	0.00255	0.01940	0.01047	0.03920	0.00892
2018-02-08	-	0.01506	0.03839	0.01878	0.02639	0.03304	0.02972	0.02939	0.03348	0.03731	0.02983	0.02802	0.04339	0.03015
2018-02-09	0.00075	0.01437	0.00029	0.00098	0.00720	0.00665	0.00460	0.02036	0.00284	0.01602	0.00611	0.00671	0.01004	
2018-02-12	0.00644	0.01416	0.01131	0.01584	0.01424	0.00786	0.01549	0.01426	0.00981	0.00555	0.01614	0.01747	0.01928	
2018-02-13	0.01032	0.00383	0.00173	0.00160	0.00185	0.00691	0.00756	0.00524	0.00508	0.00256	0.00939	0.01040	0.01236	
2018-02-14	0.02725	0.01548	0.01685	0.02067	0.02193	0.02674	0.01417	0.02646	0.01777	0.01506	0.01214	0.03098	0.01502	
2018-02-15	0.00782	0.00843	0.00930	0.00971	0.00060	0.00276	0.00359	0.00706	0.01910	0.01254	0.01853	0.02476	0.00479	
2018-02-16	-	0.00949	0.00279	0.00084	0.00187	0.00180	0.00427	0.00060	0.00066	0.00712	0.00134	-	0.00462	0.01521
2018-02-20	-	0.00765	0.00616	0.01073	0.00843	0.00966	0.01721	0.00358	0.00722	0.00146	0.01255	0.00276	0.00860	0.00815
2018-02-21	-	0.00626	0.00507	0.00284	0.00314	0.00700	0.00840	0.01386	0.00044	0.00256	0.01134	0.00713	0.00916	0.01003
2018-02-22	0.01010	0.00157	0.00199	0.00659	0.00488	0.00219	0.01146	0.00890	0.01203	0.01985	0.00943	0.00168	0.00462	
2018-02-23	0.00215	0.01275	0.00848	0.00623	0.00727	0.01616	0.00419	0.01032	0.01475	0.00212	0.00692	0.01645	0.01454	
2018-02-26	0.00903	0.00739	0.00618	0.00619	0.00452	0.00277	0.00833	0.00831	0.00555	0.00271	0.00397	0.00908	0.01289	
2018-02-27	-	0.00308	0.01204	0.01523	0.01713	0.01881	0.01768	0.01552	0.01798	0.02160	0.02133	0.01702	0.03897	0.01370
2018-02-28	-	0.00547	0.01061	0.01489	0.00662	0.00707	0.00785	0.01180	0.01765	0.01460	0.01274	0.01663	0.01449	0.00880
2018-03-01	0.00428	-	-	-	-	-	-	-	-	0.01368	0.00520	0.02035	0.00318	-

2018-03-02	0.00095	0.00474	0.00233	-0.00096	-	0.00254	0.00123	0.00285	0.00752	-0.00120	0.00618	-	0.01124
2018-03-05	0.00261	0.01130	0.00667	0.00191	0.01436	0.00286	0.00184	0.00699	0.00225	0.00319	0.00822	0.00130	0.00449
2018-03-06	0.00825	0.00591	0.00490	0.00603	0.00587	0.02048	0.00520	0.00694	0.00038	0.00694	0.01494	0.01008	0.00612
2018-03-07	-0.00801	0.00062	0.00029	0.00473	0.00798	0.00931	0.00152	0.01350	0.00038	0.00257	0.01220	0.00301	0.00845
2018-03-08	-0.00879	0.00062	0.00172	0.00126	0.00122	0.00308	0.00458	0.01257	0.00339	0.01728	0.00478	0.00399	0.00614
2018-03-09	0.00476	0.01598	0.00715	0.00533	0.00336	0.00277	0.00519	0.02065	0.02070	0.00969	0.01428	0.02585	0.00248
2018-03-12	-0.00190	0.00397	0.00143	0.00063	0.00456	-	0.00334	0.00499	0.00333	0.00366	0.00338	0.00401	0.00099
2018-03-13	-0.00238	0.00245	0.00832	0.00627	0.01653	0.00369	0.00395	0.00978	0.00725	0.00385	0.00475	0.01686	0.00165
2018-03-14	-0.00622	0.00739	0.00230	0.00345	0.00462	0.00556	0.00182	0.00153	0.00335	0.00503	0.00133	0.00770	0.00428
2018-03-15	-0.00771	0.00093	0.00086	0.00063	0.00307	0.00556	0.00732	0.02302	0.01234	0.01444	0.00072	0.01123	0.00197
2018-03-16	0.00024	0.00586	0.00230	0.00031	0.00061	0.00369	0.00610	0.00112	0.00566	0.00849	-	0.00138	0.00444
2018-03-19	-0.00218	0.00803	0.00662	0.00472	0.00738	0.00431	0.00488	0.00923	0.00665	0.01217	0.00136	0.01484	0.01712
2018-03-20	0.00266	0.00341	0.00144	0.00284	0.00093	0.00309	0.00490	0.00636	0.00420	0.00401	0.00205	0.01786	0.00568
2018-03-21	0.01821	0.00062	0.00289	0.00063	0.00093	0.00340	0.00215	0.02385	0.00762	0.02935	0.00748	0.00938	0.00133
2018-03-22	-0.01314	0.02787	0.01833	0.02107	0.02338	0.02498	0.02399	0.02408	0.01859	0.01467	0.01708	0.05189	0.00920
2018-03-23	0.00432	-	-	-	-	-	-	-	-	-	-	-	-

2018-03-26	0.01025	0.02497	0.02043	0.01964	0.02023	0.01289	0.02566	0.01516	0.01258	0.02374	0.01892	0.03946	0.01414	
2018-03-27	-	0.00690	0.01369	0.00783	0.01413	0.01133	0.01669	0.01463	0.02686	0.00559	0.00982	0.00739	0.02129	0.00237
2018-03-28	-	0.00407	0.00192	0.00725	0.00773	0.00095	0.01450	0.01215	0.00437	0.00367	0.00833	0.00202	0.01415	0.01124
2018-03-29	0.02017	0.01149	0.00433	0.00767	0.01509	0.00624	0.00679	0.03031	0.02135	0.02536	0.01075	0.01780	0.01260	
2018-04-02	-	0.00212	0.01891	0.01070	0.01347	0.01509	0.01504	0.01176	0.01595	0.00662	0.02695	0.00402	0.02451	0.02031
2018-04-03	0.00821	0.01158	0.00811	0.00836	0.00632	0.01598	0.00404	0.00818	0.00398	0.02209	0.01664	0.00937	0.01253	
2018-04-04	0.01022	0.01050	0.01062	0.00543	0.00189	0.00403	0.00124	0.00046	0.01035	0.02599	0.00723	0.00163	0.00100	
2018-04-05	0.00346	0.00568	0.00966	0.00982	0.01218	0.01047	0.01016	0.00660	0.00485	0.00133	0.00653	0.00266	0.00497	
2018-04-06	-	0.01019	0.02099	0.00283	0.00284	0.00373	0.00245	0.00338	0.01509	0.00692	0.00666	0.00031	0.02432	0.01581
2018-04-09	-	0.00607	0.00128	0.00706	0.00944	0.00683	0.01130	0.01071	0.03373	0.00263	0.00268	0.00747	0.01306	0.00885
2018-04-10	0.01648	0.01592	0.01509	0.01090	0.01383	0.01147	0.00909	0.01981	0.01715	0.01408	0.01615	0.02953	0.00547	
2018-04-11	0.00871	0.00316	0.00167	0.00466	0.00612	0.00874	0.00211	0.01368	0.00461	0.00151	0.03126	0.00101	0.00248	
2018-04-12	-	0.00641	0.00584	0.00692	0.00466	0.00734	0.00934	0.00030	0.00346	0.00587	0.00733	0.00421	0.00130	0.00166
2018-04-13	-	0.00530	0.00110	0.00083	0.00124	0.00274	0.00299	0.00362	0.01937	0.00037	0.00858	0.00739	0.01855	-
2018-04-16	0.00668	0.01263	0.00248	0.00525	0.00030	0.00477	0.00750	0.01305	0.00311	0.00223	0.01431	0.00517	0.00282	
2018-04-17	0.01548	0.00921	0.00193	0.00705	0.01208	0.01066	0.00239	0.01728	0.00293	0.00760	0.01709	0.00429	0.00380	

2018-04-18	0.00899	0.00247	0.00687	0.00397	0.00180	0.00558	0.00653	0.02846	0.01164	-	0.00092	0.01345	-	0.00015	0.00674
2018-04-19	0.00625	-	-	0.00030	0.00511	0.00059	0.00059	0.00549	0.00253	-	0.02963	0.00029	0.00015	0.00378	
2018-04-20	-	0.00245	0.00654	0.00275	0.00427	0.00695	0.00411	0.00416	0.01014	0.00325	0.00611	0.02214	0.01337	0.00198	
2018-04-23	-	0.00896	0.00125	0.00055	0.00184	0.00365	0.00440	0.00030	0.01306	0.01018	0.02129	0.00812	0.00600	0.00132	
2018-04-24	0.00023	0.01142	0.00193	0.00276	0.00856	0.00382	0.01167	0.00494	0.00347	0.00294	0.00292	0.00030	0.00364	-	
2018-04-25	-	0.01018	0.00265	0.00249	0.00308	0.00523	0.00649	0.00060	0.00829	0.01375	0.00098	0.02511	0.00664	0.00314	
2018-04-26	0.00634	0.00752	0.00773	0.00400	0.00401	0.00413	0.00151	0.01955	0.00644	0.00489	0.00766	0.00920	0.00609	-	
2018-04-27	-	0.00634	0.00156	0.00083	0.00551	0.00399	0.00621	0.00451	0.00442	0.00073	0.00797	0.00508	0.00479	0.00279	
2018-04-30	-	0.00547	0.01038	0.00248	0.00306	0.00584	0.00446	0.00240	0.01781	0.01275	0.00136	0.00343	0.00164	0.00231	
2018-05-01	-	0.00964	0.00095	0.00498	0.00337	0.00370	0.00448	0.00664	0.01261	0.01197	0.01346	0.00470	0.00209	0.00082	
2018-05-02	-	0.00460	0.00411	0.00528	0.00061	0.00954	0.00805	0.00724	0.01666	0.00585	0.01604	0.01019	0.00254	0.00596	
2018-05-03	-	0.01271	0.00095	0.00278	0.00521	0.00061	0.00267	0.00240	0.00856	0.00722	0.01448	0.01489	0.00480	0.00100	
2018-05-04	-	0.00487	0.01005	0.00250	0.00122	0.00519	0.00620	0.00269	0.00049	0.00650	0.01202	0.00846	0.01047	0.00727	
2018-05-07	-	0.00069	0.00128	0.00083	0.00368	0.00425	0.00059	0.00180	0.01608	0.00231	0.02511	0.00329	0.00223	0.00115	
2018-05-08	-	0.00837	0.00128	0.00055	0.00308	0.00365	0.01421	0.00090	0.00025	0.01512	0.00084	0.01697	0.01357	0.00312	
2018-05-09	-	0.00280	0.00691	0.01567	0.00123	0.00122	0.00030	0.00628	0.00918	0.00914	0.00506	0.00664	0.00497	-	
														0.00856	

2018-05-10	0.01296	0.00899	0.00191	0.00919	0.00908	-	0.00329	0.00831	0.03352	0.02560	0.02629	0.01169	0.01734	0.00577
2018-05-11	0.00046	0.00185	0.00136	0.00122	0.00151	0.00388	0.00266	-	0.02222	0.00301	0.01014	0.00648	0.00100	0.00753
2018-05-14	-	0.00784	0.00031	0.00190	0.00061	0.00181	0.00119	0.00177	0.00711	0.00945	0.01425	0.00712	0.00857	0.00553
2018-05-15	-	0.01282	0.00587	0.00272	0.00702	0.00728	0.00537	0.01098	0.01263	0.01088	0.00912	0.01364	0.01865	0.01028
2018-05-16	0.00281	0.00556	0.00380	-	-	-	-	-	-	-	-	-	-	-
2018-05-17	0.00140	0.00308	0.00541	0.00459	0.00577	0.00707	0.00392	0.03766	0.00767	0.02052	0.02601	0.01443	0.00016	-
2018-05-18	0.00656	0.00154	0.00378	0.00183	0.00395	0.01305	0.01121	0.02016	0.00541	0.01655	0.00824	0.00476	0.00246	-
2018-05-21	0.00305	0.00644	0.00782	0.00731	0.00788	0.00094	0.00336	0.00235	-	0.00368	0.00374	0.01149	0.00763	0.00115
2018-05-22	0.00468	-	0.00081	0.00061	0.00121	0.00562	0.00670	0.02521	0.01274	0.01400	0.01017	0.00475	0.00229	-
2018-05-23	-	0.00726	-	0.01351	0.01313	0.01737	0.01505	0.01530	0.01872	0.00306	0.01510	0.00468	0.00087	0.00395
2018-05-24	0.00375	0.00215	0.00600	0.00246	0.00802	0.00761	0.00216	0.01302	0.01911	0.01401	0.00801	0.00405	0.00611	-
2018-05-25	-	0.00258	0.00430	0.00907	0.01048	0.00217	0.02580	0.02566	0.02361	0.00136	0.00152	0.01405	0.00232	0.00332
2018-05-29	-	0.01562	0.00959	0.01699	0.03180	0.03187	0.05991	0.05639	0.05292	0.02384	0.02844	0.00872	0.01765	0.00667
2018-05-30	0.00594	0.01143	0.01561	0.01744	0.02314	0.04244	0.02713	0.00986	0.00159	0.01001	0.00599	0.00440	0.00701	-
2018-05-31	-	0.00095	0.00802	0.00360	0.00031	0.00881	0.00696	-	0.00168	0.00659	0.01069	-	0.00817	0.00684
2018-06-01	0.00945	0.01292	0.00664	0.00845	0.00536	0.00231	0.01173	0.00532	0.00140	0.00669	0.01907	0.01500	0.00684	-

2018-06-04	0.00329	0.00458	-	0.00055	0.00249	0.00564	-	0.00165	0.00967	0.01689	0.01765	-	0.00022	0.01808	0.01689	0.00597
2018-06-05	0.00281	0.00334	-	-	0.00062	0.00031	0.01028	-	0.00773	0.04063	0.01445	0.02682	-	0.00321	0.00253	0.00182
2018-06-06	0.01138	0.00514	0.00934	0.00929	0.01489	0.01094	0.02206	0.01411	-	0.00338	0.00977	0.00450	-	0.01255	0.00430	-
2018-06-07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018-06-08	-	0.00186	0.00362	0.00137	0.00435	0.00342	0.00875	0.00253	0.04279	0.01140	0.02388	0.00543	-	0.00309	0.00296	-
2018-06-11	-	0.00257	0.00181	0.00547	0.00803	0.00804	0.03683	0.01511	0.01001	0.00339	0.00648	0.00232	-	0.00042	0.00312	-
2018-06-12	0.00070	0.00030	0.00712	0.00989	0.00432	0.00686	0.00344	0.01059	0.00240	0.00313	0.00459	0.00435	-	0.00625	-	-
2018-06-13	-	0.00774	0.00331	0.00110	0.00310	0.00401	0.00621	-	0.01059	0.00100	0.00224	0.00654	-	0.01339	0.00082	-
2018-06-14	-	0.00875	0.00121	0.00302	-	0.00431	0.00261	0.00882	0.03370	0.00261	0.00424	0.00197	-	0.00028	0.00099	-
2018-06-15	-	0.01726	0.00060	0.01326	0.00062	0.00492	0.00820	0.00858	0.01096	0.00100	0.00445	0.01510	-	0.00427	0.00529	-
2018-06-18	-	0.00339	0.00090	0.00502	0.01091	0.01522	0.00529	0.00994	0.01433	0.01172	0.00244	0.00117	0.00988	-	0.00732	-
2018-06-19	-	0.01960	0.00589	0.03007	0.03118	0.03634	0.02584	0.01167	0.00459	0.03201	0.01719	0.02293	-	0.02315	0.01837	-
2018-06-20	-	0.00521	0.00076	0.00058	0.00649	0.00097	0.00170	0.00130	0.00552	-	0.01542	0.00877	-	0.00044	0.00034	-
2018-06-21	-	0.01050	0.00668	0.00664	0.00882	0.01407	0.02099	0.00951	0.02049	0.01076	0.00244	0.01284	-	0.01950	0.00375	-
2018-06-22	-	0.00651	0.00244	0.01638	0.01175	0.00951	0.01244	0.01049	0.00501	0.00191	0.01763	0.01015	-	0.00793	0.00494	-
2018-06-25	-	0.00903	0.01323	0.02074	0.00978	0.01745	0.01279	0.00884	0.00870	-	0.00893	0.00762	-	0.00472	0.02690	-

2018-06-26	-0.00252	0.00310	0.00349	0.00328	0.00366	0.00314	0.00099	0.00527	0.00772	0.00152	0.00270	0.00307	0.00584
2018-06-27	-0.00863	0.01030	0.00640	0.00858	0.01073	0.00911	0.01359	0.03643	0.00800	0.01285	0.00600	0.03200	0.00670
2018-06-28	-0.00947	0.00407	0.00698	0.00066	0.00473	0.00527	0.00499	0.02831	0.00697	0.02832	0.00126	0.00963	0.00121
2018-06-29	-0.00947	0.00063	0.00808	0.01087	0.01512	0.01184	0.00794	0.00500	0.00610	0.00468	0.01357	0.01482	0.00328
2018-07-02	-0.01050	0.00188	0.01186	0.00592	0.00502	0.00834	0.00363	0.00563	0.00719	0.02557	0.00077	0.01434	0.01601
2018-07-03	-0.00129	0.00344	0.00320	0.00460	0.00335	0.01111	0.00725	0.02111	0.01347	0.03022	0.01922	0.00220	0.00123
2018-07-05	-0.00439	0.00780	0.01067	0.01788	0.01690	0.01507	0.03135	0.00802	0.01566	0.04662	0.00393	0.00742	0.00158
2018-07-06	0.01030	0.00651	0.00287	0.00450	0.00688	0.00339	0.00666	0.02719	0.00285	0.01619	0.00911	0.01526	0.00649
2018-07-09	0.02004	0.00846	0.00855	0.00544	0.00553	0.00574	0.00567	0.01079	0.01691	0.00040	0.01568	0.02101	0.01372
2018-07-10	-0.01289	0.00260	0.00142	0.00446	0.00356	0.00034	0.00441	0.00446	0.00236	0.00987	0.00787	0.01061	0.00380
2018-07-11	-0.02291	0.00859	0.01945	0.01827	0.02058	0.02283	0.02170	0.02860	0.01252	0.01007	0.01846	0.01982	0.01394
2018-07-12	0.00778	0.00737	0.01120	0.01030	0.00789	0.00550	0.00483	0.01996	0.00671	0.00079	0.00761	0.01967	0.00105
2018-07-13	0.00592	0.00214	0.00114	0.00447	0.00294	0.00410	0.00547	0.01927	0.00324	0.00377	0.00601	0.00155	0.00925
2018-07-16	-0.00360	0.00367	0.00630	0.00127	0.00521	0.00034	0.00354	0.00471	0.00390	0.00496	-0.00699	0.00035	
2018-07-17	0.01509	0.00458	0.00489	0.00032	0.00647	0.00409	0.00419	0.02707	0.01102	0.00198	0.00353	0.00125	0.00882
2018-07-18	0.00506	0.00487	-0.00058	0.00127	0.00097	-0.00546	-0.00226	0.01243	0.00172	0.00316	-0.00525	0.00234	-0.00155

2018-07-19	-	0.01194	0.00076	0.00434	0.00512	0.00582	0.00583	0.00162	0.00319	0.01535	0.01309	0.00527	0.01938	0.00017
2018-07-20	-	0.00688	0.00472	0.00866	0.00256	-	0.00617	0.00646	0.03279	0.01234	0.00756	0.00527	0.01281	0.00310
2018-07-23	-	0.00076	0.00107	0.00403	0.00545	0.00097	0.00720	0.00257	0.00902	0.00799	0.00573	0.01590	0.00488	0.00497
2018-07-24	-	0.01611	0.00290	0.00976	0.00768	0.00712	0.00583	0.00032	0.02543	0.02018	0.00882	0.01129	0.01985	0.00410
2018-07-25	-	0.01487	0.00749	0.00143	0.01047	0.00803	0.00614	0.00577	0.02480	0.01078	0.01280	0.00264	0.02022	0.00645
2018-07-26	-	0.01362	0.00707	0.00946	0.00983	0.00256	0.00512	0.00867	0.02839	0.00210	0.00290	0.00396	0.01852	0.00253
2018-07-27	-	0.00473	0.00574	0.00201	0.00477	0.00192	0.00409	0.00835	0.01702	0.00677	0.00270	0.00107	0.00713	0.00303
2018-07-30	-	0.00149	0.00608	0.00230	0.00222	0.00128	0.00509	0.00764	0.00082	0.00803	0.00596	0.01094	0.01017	0.00760
2018-07-31	-	0.00642	0.00517	0.00715	0.00411	0.00064	0.01179	0.00159	0.01812	0.01462	0.00384	0.00723	0.00314	0.00766
2018-08-01	-	0.00965	0.00456	0.01261	0.00506	0.00802	0.02063	0.00923	0.00305	0.01610	0.00501	0.00795	0.01802	0.00647
2018-08-02	-	0.02747	0.00547	0.01102	0.00668	0.01459	0.01619	0.01061	0.00665	0.00634	0.01108	0.01103	0.01317	0.00562
2018-08-03	-	0.01295	0.00484	0.00582	0.00128	0.00261	0.00243	0.00065	0.03579	0.00740	0.01436	0.00770	0.00210	0.00017
2018-08-06	-	0.01295	0.00241	0.00727	0.00575	0.00392	0.00312	0.00583	0.01394	0.01549	0.00058	-	0.00830	0.00754
2018-08-07	-	0.00459	0.00495	0.00785	0.01052	0.00620	0.01484	0.00809	0.01826	0.00214	0.01870	0.00134	0.01733	0.00839
2018-08-08	-	0.00408	0.00135	0.00203	0.00286	0.00260	0.00171	0.00064	0.01273	0.00814	0.00303	0.01075	0.00386	0.00102
2018-08-09	-	0.00535	0.00239	0.00203	0.00510	0.00098	0.01382	0.00907	0.01403	0.00908	0.02574	0.00203	0.01010	-

2018-08-10	-0.01484	0.00544	0.01577	0.02820	0.03081	0.03504	0.03072	0.04507	0.01929	0.03524	0.01637	0.00833	0.01450
2018-08-13	-0.01742	0.00450	0.00324	0.00066	0.00472	0.00614	0.00741	0.00531	0.01471	0.00141	0.02296	0.01475	0.00593
2018-08-14	0.00288	0.00814	0.00444	0.00165	0.00068	0.00436	-	0.01979	0.00470	0.02275	0.00165	0.01397	0.00402
2018-08-15	-0.03135	0.01047	0.01826	0.01963	0.02082	0.02881	0.01876	0.02628	0.02604	0.02963	0.01440	0.03745	0.01227
2018-08-16	-0.00216	0.00837	0.00782	0.00837	0.00688	0.00895	0.00515	0.00504	0.01231	0.00081	0.00427	0.01043	0.00545
2018-08-17	0.00540	0.00390	0.00449	0.00863	0.00785	0.00186	0.00683	0.01046	0.00113	0.01131	0.00071	0.01352	0.00333
2018-08-20	0.00510	0.00448	0.00714	0.00691	0.00947	0.00926	0.00407	0.00603	0.00113	0.00421	-	0.00869	0.00401
2018-08-21	-0.00134	0.00387	0.00325	0.01369	0.01404	0.02007	0.01913	0.03382	0.00632	0.01606	0.01688	0.01601	0.00017
2018-08-22	0.00481	0.00208	0.00471	0.00581	0.00232	0.00036	0.00597	0.01951	0.01275	0.02006	0.00765	0.00571	0.00417
2018-08-23	-0.01046	0.00060	0.01212	0.00613	0.00531	0.00908	0.00930	0.03368	0.01501	0.01633	0.00347	0.01857	0.00417
2018-08-24	0.01472	0.00564	0.00652	0.01063	0.01126	0.01304	0.01029	0.01386	0.01523	0.00333	0.00139	0.01498	0.00348
2018-08-27	0.00899	0.00591	0.01263	0.01305	0.01633	0.00932	0.01247	0.02594	0.00532	0.01992	0.01172	0.01990	0.01499
2018-08-28	-0.00158	0.00206	0.00497	0.00284	-	0.00932	0.00359	0.01908	0.00643	0.02462	0.00619	0.00594	0.00308
2018-08-29	0.00026	0.00293	0.00643	0.00409	0.00420	0.00789	0.00065	0.01877	0.00446	0.01248	0.01110	0.00882	0.00360
2018-08-30	-0.02969	0.00411	0.01025	0.01073	0.01070	0.01802	0.01582	0.03632	0.02995	0.02274	0.01405	0.03262	0.00703
2018-08-31	0.00352	-0.00059	0.01155	0.01567	-0.01445	0.01465	0.01270	0.02559	-0.00184	-0.00179	0.00852	0.00214	0.00206

2018-09-04	-0.02437	0.00009	0.00687	0.01200	0.01131	0.01465	0.00168	-0.04700	0.03284	0.02637	0.01799	0.01242	-0.01244
2018-09-05	-0.00111	-0.00150	0.00300	0.01182	0.01043	0.00399	0.00303	-0.00708	0.00072	0.00388	0.01095	0.02686	-0.01067
2018-09-06	0.01623	0.00491	0.00664	-	0.00712	0.00436	0.01050	0.02721	0.00380	0.00998	0.01256	0.00360	0.00228
2018-09-07	-0.00113	0.00356	0.00699	0.00895	0.00821	0.01281	0.01475	0.01456	0.00332	0.00101	0.00074	0.00551	0.00616
2018-09-10	-0.00908	0.00089	0.00699	0.00994	0.00786	0.03048	0.01815	-0.01145	0.01046	0.00041	0.00521	0.01726	0.00229
2018-09-11	0.00428	-	0.00030	0.00296	0.00034	0.00215	0.00068	0.03611	0.00406	0.00344	0.00149	0.00141	0.00211
2018-09-12	0.01280	0.00089	0.00484	0.00753	0.00340	0.00429	0.00204	0.00803	0.02004	0.01843	0.01485	0.00772	0.00193
2018-09-13	0.00254	0.00711	0.00331	0.00813	0.01014	0.00071	0.01216	-0.01711	0.03057	0.01926	0.00661	0.02536	0.00769
2018-09-14	0.00169	0.00354	-	0.00357	0.00135	0.00679	0.00303	0.01615	0.00158	0.00684	0.01178	0.00924	0.01125
2018-09-17	-0.00621	0.00501	0.00120	0.00195	0.00135	0.01460	0.00805	0.02873	0.00922	0.00255	0.00958	0.01333	0.00052
2018-09-18	0.01182	0.00531	0.00449	0.00485	0.00872	0.00740	0.00732	0.01237	0.00825	0.00666	0.01022	0.01126	0.02362
2018-09-19	0.01637	0.00442	0.00507	0.00451	0.00267	0.00280	0.00694	-	0.01104	0.00176	0.00802	0.02316	0.00352
2018-09-20	0.01719	0.00707	0.01592	0.01878	0.01816	0.01597	0.02247	0.01344	0.01288	0.00351	0.00548	0.01088	0.00267
2018-09-21	-0.00486	0.00029	0.00088	0.00220	0.00065	0.00138	0.00711	0.02368	0.00281	0.00294	0.00256	0.00912	0.00217
2018-09-24	-0.00459	0.00353	0.00147	0.00284	0.00623	0.00690	0.00912	-0.02915	0.01306	0.00966	0.00364	0.01546	0.00451
2018-09-25	0.00432	-	0.00934	0.00221	0.00329	0.01513	0.00033	0.01032	-0.00219	0.00376	0.00363	0.00385	0.00750

2018-09-26	-0.00054	0.00890	-	0.00251	0.00427	0.00171	0.00196	0.01557	0.00154	0.00610	0.00225	0.00533	0.00480
2018-09-27	-0.00486	0.00030	0.00087	-0.00504	0.00264	0.01932	0.00856	0.02059	0.00088	0.00255	0.00225	0.00050	0.00265
2018-09-28	-0.00027	0.00238	0.00963	0.00951	0.01799	0.03691	0.02138	0.01821	0.00286	0.00195	0.00217	0.00616	0.00199
2018-10-01	0.00486	0.00149	0.00088	0.00096	0.00537	0.00617	-	0.00059	-	0.00739	0.00792	0.00017	0.00678
2018-10-02	0.00404	0.00178	0.00529	0.00736	0.00637	0.00474	0.00950	0.05483	0.00198	0.01523	0.01227	0.02365	0.00231
2018-10-03	-0.00971	0.00445	0.00412	0.00160	0.00370	0.00656	0.00374	0.03559	0.00264	0.01666	0.00724	0.00445	0.00880
2018-10-04	-0.00926	0.00952	0.00885	0.01454	0.01181	0.00765	0.00340	0.01063	0.02446	0.01349	0.00942	0.02662	0.01360
2018-10-05	-	0.00600	0.00654	0.00915	0.00955	0.00919	0.00615	0.00410	0.01497	0.00526	0.00145	0.00141	0.00017
2018-10-08	-0.00356	0.00090	0.00869	0.00858	0.01345	0.02052	0.00103	0.06520	0.01317	0.00506	0.01170	0.01244	0.00438
2018-10-09	0.00984	0.00574	-	-0.00099	0.00104	0.00676	0.00068	0.01143	0.01157	0.00304	0.00368	0.01042	0.00574
2018-10-10	0.01949	0.02857	0.01455	0.02688	0.02428	0.01890	0.01309	0.03758	0.02987	0.01671	0.02541	0.03474	0.02484
2018-10-11	0.01267	0.02206	0.01569	0.00821	0.00858	0.01422	0.01011	0.01613	0.00282	0.00288	0.01219	0.00394	0.01821
2018-10-12	-0.00192	0.00983	0.00217	0.00240	0.00394	-	0.00844	0.02890	0.00933	0.00391	0.01414	0.03361	0.00229
2018-10-15	0.00274	0.00189	-	0.00481	0.00428	0.00116	0.00493	0.01041	0.00396	0.00736	0.00879	0.01925	0.00300
2018-10-16	0.00491	0.01848	0.01046	0.01909	0.01905	0.02638	0.01674	0.03194	0.01894	0.01457	0.02335	0.02034	0.01839
2018-10-17	-0.00546	0.00249	0.00676	0.00882	0.01125	0.01982	0.01323	0.01109	0.01058	-	-	0.01223	-0.00069

2018-10-18	-	0.01406	0.01347	0.01553	0.01580	0.02072	0.03247	0.02735	0.03313	0.01397	0.03373	0.02118	0.03133	0.01823
2018-10-19	-	0.00668	0.00696	0.00873	0.00277	0.00468	0.01421	0.01678	0.00929	0.00423	0.00231	0.00153	0.01448	0.00212
2018-10-22	-	0.00532	0.00064	0.00591	0.00867	0.00504	0.00787	0.01714	0.02109	0.00141	0.01694	0.00230	0.03143	0.00620
2018-10-23	-	0.01272	0.00861	0.00438	0.00664	0.01235	0.00118	0.00036	0.00555	0.00331	0.00643	0.01547	0.01863	0.01161
2018-10-24	-	0.00828	0.03058	0.02380	0.02952	0.03572	0.03739	0.02849	0.04181	0.01526	0.02767	0.02686	0.03795	0.03251
2018-10-25	-	0.00259	0.01703	0.00831	0.01824	0.02062	0.02068	0.01288	0.02756	0.01384	0.01709	0.01370	0.02291	0.01474
2018-10-26	-	0.00432	0.01538	0.00639	0.00569	0.00633	0.00040	0.00219	0.02632	0.00071	0.00348	0.00152	0.01737	0.01289
2018-10-29	-	0.00376	0.00297	0.00064	0.00321	0.00410	0.00440	0.00401	0.03585	0.02614	0.07418	0.00205	0.02820	0.00931
2018-10-30	-	0.00290	0.01965	0.00798	0.00571	0.00556	0.00954	0.00580	0.04455	0.00146	0.00376	0.01110	0.01574	0.01559
2018-10-31	-	0.00749	0.01000	0.01075	0.01026	0.00774	0.00914	0.00072	0.00596	0.00749	0.00852	0.00734	0.02645	0.00971
2018-11-01	-	0.02242	0.01245	0.01961	0.01155	0.01276	0.01937	0.01790	0.02217	0.04175	0.04097	0.00081	0.05000	0.00237
2018-11-02	-	0.00084	0.00636	0.00556	0.00174	0.00650	0.00858	0.00636	0.01355	0.01148	0.00773	0.00303	0.00196	0.00565
2018-11-05	-	0.00448	0.00541	0.00556	-	0.00397	0.00545	0.00141	0.00893	0.00091	0.02834	0.00754	0.00286	0.00364
2018-11-06	-	0.00196	0.00507	0.00062	-	0.00108	0.00739	0.01854	0.01638	0.00365	0.00198	0.00081	0.00125	0.01125
2018-11-07	-	0.01114	0.02001	0.01470	0.01380	0.01184	0.01500	0.00863	0.00494	0.00296	0.00351	0.03726	0.02440	0.01041
2018-11-08	-	0.01114	0.00403	0.00793	0.01206	0.01945	0.02044	0.01418	0.02916	0.00182	0.07001	0.00781	0.03087	0.00645

2018-11-09	-0.00985	0.01094	0.00800	0.00521	0.00036	0.00861	0.00487	0.00636	-0.02045	0.00305	0.00236	-0.02851	-0.01011	
2018-11-12	-0.01769	0.01872	0.01839	0.02042	0.02917	0.02024	0.02386	0.01301	-0.01709	0.02944	0.01585	-0.01287	-0.01371	
2018-11-13	-0.00231	0.00192	0.00627	0.00709	0.01524	0.00520	0.01025	0.01631	-0.00473	0.02242	0.01529	0.02430	-0.00369	
2018-11-14	0.00633	0.00967	0.00219	0.00282	0.00368	0.00438	0.01049	0.01554	0.01554	0.00344	0.00808	0.00949	0.00350	
2018-11-15	0.02184	0.00678	-0.00594	0.00211	0.00367	0.00159	0.00035	0.02412	0.01852	0.01186	0.01833	0.02368	0.00587	
2018-11-16	0.01144	0.00417	0.00503	0.00035	0.00073	0.00040	0.00035	0.01518	0.00891	0.02794	0.01800	0.00089	0.00073	
2018-11-19	-0.00278	0.01941	0.00347	0.00989	0.01217	0.00477	0.00733	0.01418	0.00479	0.00484	0.01171	0.02149	-0.00440	
2018-11-20	-0.02393	0.01547	0.01434	0.01864	0.02062	0.02459	0.02159	0.03441	-0.01612	0.02160	0.02544	0.02085	0.01853	
2018-11-21	0.00992	0.00595	0.01656	0.00936	0.01690	0.01298	0.00820	0.02155	0.01200	0.00149	0.00890	0.02356	0.01522	
2018-11-23	-0.02052	0.00463	0.01239	0.00972	0.01086	0.00404	0.00820	0.01793	0.01316	0.01598	0.01803	0.01144	-0.00369	
2018-11-26	0.00374	0.01708	0.01617	0.01295	0.01865	0.02832	0.02334	0.03363	-	0.05060	0.00165	0.02328	0.01341	
2018-11-27	-0.00172	0.00261	0.00790	0.00358	0.00742	0.01067	0.00245	0.04213	0.00046	0.01655	0.00083	0.00196	-0.00091	
2018-11-28	0.01681	0.02228	0.01292	0.01459	0.01368	0.01734	0.01599	0.01979	0.00948	0.04358	0.00248	0.02670	0.01306	
2018-11-29	-	0.00705	0.00849	0.00177	0.00552	0.00509	0.01005	0.00025	0.00207	0.01583	0.00166	0.01943	0.00343	
2018-11-30	-	0.00283	0.00513	0.00792	0.00604	0.00890	0.00315	0.00734	0.00050	0.01178	0.01011	0.01073	0.01578	0.00090
2018-12-03	0.01630	0.01524	0.00950	0.00886	0.01626	0.02336	0.01325	0.00476	0.01910	0.00593	0.02281	0.01827	0.01346	

2018-12-04	-0.00028	0.03202	-0.02166	0.02430	0.02976	-0.03325	0.03023	-0.01791	0.01169	-0.01690	0.00392	-0.01932	-0.03760
2018-12-06	-0.00700	0.00261	-0.01623	0.01421	0.01407	-0.00080	0.00107	-0.00407	0.00162	-0.01813	0.00883	-0.01863	-0.00148
2018-12-07	-0.00141	0.02678	-0.00822	0.00810	0.01739	-0.01484	0.00933	-0.01998	0.01045	-0.00049	0.00810	-0.01790	-0.00744
2018-12-10	-0.00876	0.00302	-0.01195	0.00742	0.00665	-0.00202	0.01051	-0.02700	0.01174	-0.01065	0.02220	-0.00652	-0.00769
2018-12-11	-0.00538	0.00101	-0.00300	0.00409	0.00470	-0.00122	0.00146	-0.01110	0.00664	-0.00224	0.00188	-0.00815	-0.00075
2018-12-12	-0.00591	0.00704	-0.01717	0.02093	0.01550	-0.02640	0.02130	-0.01668	0.02047	-0.01486	0.00105	-0.01183	-0.01198
2018-12-13	-0.00168	0.00335	-0.00033	0.00255	0.00231	-0.00119	0.00783	-0.00361	0.00302	-0.00790	0.00500	-0.00445	-0.00298
2018-12-14	-0.01013	0.01554	-0.01352	0.01764	0.01436	-0.01554	0.00890	-0.01296	0.00699	-0.00223	0.00671	-0.01412	-0.01145
2018-12-17	-0.00536	0.02692	-0.00934	0.00744	0.00785	-0.00806	0.00143	-0.01287	0.01627	-0.01526	0.01015	-0.01999	-0.00796
2018-12-18	-0.00451	0.00140	-0.02373	0.00449	0.00550	-0.00121	0.02649	-0.00477	0.00524	-0.00829	0.02410	-0.01647	-0.00496
2018-12-19	-0.01452	0.01518	-0.00378	0.00829	0.00787	-0.00162	0.00147	-0.02066	0.00840	-0.00325	0.00658	-0.02055	-0.01484
2018-12-20	-0.00458	0.01867	-0.00069	0.00417	0.00475	-0.00651	0.01111	-0.01800	0.00750	-0.02170	0.03226	-0.00133	-0.00526
2018-12-21	-0.00630	0.01276	-0.00829	0.01339	0.00997	-0.02607	0.01614	-0.01125	0.00462	-0.01425	0.01997	-0.00689	-0.03132
2018-12-24	-0.00315	0.02527	-0.00906	0.01591	0.02065	-0.02419	0.00607	-0.01383	0.00759	-0.00444	0.00133	-0.00829	-0.01093
2018-12-26	-0.01139	0.04345	-0.02456	0.02702	0.02705	-0.02587	0.01662	-0.01813	0.02811	-0.00980	0.02377	-0.02525	-0.01876
2018-12-27	-0.00284	0.01147	-0.00927	0.00152	0.00319	-0.01454	0.00075	-0.01199	0.00647	-0.00098	-	-0.00568	-0.01330

2018-12-28	-0.00085	0.01689	0.01302	0.00381	0.00796	-0.00496	0.00262	0.00870	-0.00603	0.00243	0.01164	0.00247	0.00118
2018-12-31	0.00877	0.00938	0.00102	0.00757	0.00474	0.00372	0.00261	0.00315	0.00193	0.00097	0.00354	0.00304	0.00177
2019-01-02	0.00562	0.00144	0.00068	0.00871	0.00752	0.00248	0.00186	0.06192	0.00530	0.02731	0.01961	0.00553	0.00688
2019-01-03	-0.00309	0.02548	0.00616	0.01456	0.01320	0.00540	0.00223	0.00638	0.00409	0.01260	0.00348	0.02574	0.00570
2019-01-04	0.01534	0.03158	0.02741	0.02666	0.03677	0.03598	0.02494	0.02224	0.03298	0.02037	0.02928	0.03979	0.03333
2019-01-07	-0.00028	0.00783	-	0.00300	0.00155	0.01237	0.01117	0.01009	0.00373	0.01166	0.00424	0.00956	0.00247
2019-01-08	-0.00028	0.01093	0.00599	0.01118	0.00618	-	0.00500	0.01200	0.00741	0.01632	0.02262	0.00762	0.00474
2019-01-09	0.00635	0.00803	0.00958	0.01398	0.01681	0.01222	0.00285	0.02498	0.01443	0.01111	0.01195	0.02216	0.00547
2019-01-10	0.00439	0.00451	0.00426	0.00146	0.00038	0.00820	0.00248	0.00140	0.01288	0.00225	0.00126	0.00812	0.00600
2019-01-11	-0.00164	0.00277	0.00033	0.01141	0.01028	0.01133	0.00320	0.00280	-	0.00428	0.01059	0.00667	0.01167
2019-01-14	0.00602	0.00728	0.00656	0.00408	0.00153	0.00197	0.00356	0.00466	0.00560	0.00473	0.00128	0.01201	0.00360
2019-01-15	-0.01207	0.00797	0.00493	0.00037	0.00077	0.00474	0.00107	0.00560	0.00334	0.00561	0.00115	0.01183	0.01208
2019-01-16	0.00852	0.00379	-0.00295	0.00186	0.00077	0.01180	0.00392	0.00164	0.00997	0.01090	0.00621	0.01473	0.00487
2019-01-17	0.00301	0.00856	0.00818	0.00148	0.00192	0.00818	0.00178	0.00817	0.00418	0.00266	0.00265	0.00640	0.00206
2019-01-18	-0.00137	0.01388	0.00909	0.01031	0.02120	0.00194	0.01341	0.00418	0.00700	0.00044	0.00080	0.01232	0.01320
2019-01-22	-0.01099	0.01320	-0.01170	0.01217	0.01929	-0.01521	0.01234	-0.02461	-0.01626	-0.01633	-0.00965	-0.02624	-0.01808

2019-01-23	0.00138	-	0.00136	0.00716	0.00665	0.00761	0.00471	0.01724	0.02669	0.00089	0.00764	0.00469	0.00734	-	0.00282	
2019-01-24	0.00303	0.00476	-	0.00423	0.00074	0.00265	-	0.00279	0.00828	0.00331	0.00157	0.00240	0.01311	0.00583		
2019-01-25	0.01474	0.01080	0.00682	0.01643	0.01873	0.01591	0.00905	0.00389	0.00550	0.00447	0.00257	0.01779	0.01081			
2019-01-28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2019-01-29	0.00571	0.00437	0.00715	0.00145	0.00074	0.00347	0.00591	0.02192	0.00484	0.00447	0.00240	0.00781	0.00726			
2019-01-30	0.01057	0.00168	0.00682	0.00687	0.00260	0.00347	0.00209	0.01321	0.00220	0.00447	0.00720	0.00035	0.00093			
2019-01-31	0.00323	0.01238	0.01319	0.01466	0.00557	0.01225	0.00243	0.02635	0.01484	0.00447	0.00556	0.02070	0.01114			
2019-02-01	0.01494	0.00795	0.00605	0.00071	0.00818	0.00457	0.00522	0.01712	0.01228	0.00870	0.02543	0.01256	0.00184			
2019-02-04	0.00581	0.00165	0.00349	0.00355	0.00075	0.00806	0.01052	0.00066	0.00150	0.00334	0.00731	0.00609	0.00406			
2019-02-05	0.00394	0.00494	0.00284	0.00035	0.00037	0.00691	0.00247	0.00132	0.01211	0.00534	0.00612	0.00288	0.00222			
2019-02-06	0.00340	0.00230	0.00880	0.00916	0.01223	0.00496	0.00775	0.00551	0.00063	0.01081	0.00986	0.01810	0.00405			
2019-02-07	-	0.00131	0.00131	0.00376	0.00492	0.00851	0.00266	0.00281	0.04247	0.01041	0.00771	0.00084	0.01035	0.00831		
2019-02-08	0.00999	-	0.00955	0.00441	0.01635	0.02826	0.02421	0.01954	0.00648	0.00192	0.00510	0.02361	0.01471	0.01400		
2019-02-11	0.00290	0.00033	0.00063	0.00503	0.00998	0.00468	0.00503	0.00046	0.01552	0.01275	0.00310	0.00102	0.00887			
2019-02-12	-	0.01033	0.00033	0.00601	-	0.00077	0.00117	0.00072	0.01356	0.00763	0.01132	0.00857	0.00306	0.00095		
2019-02-13	0.00027	0.01281	0.00728	0.01360	0.01645	0.01472	0.01041	0.02808	0.00044	0.00114	0.01105	0.00372	0.01747			
2019-02-13	0.00372	0.00553	0.00220	0.00249	0.00342	0.00192	0.00717	0.01452	0.00461	0.03118	0.00520	0.00556	0.00242			

2019-02-14	0.00053	-0.00065	-	0.00214	0.00458	-0.00346	0.00036	0.02703	-0.00264	0.01698	-0.00585	-0.00489	-0.00074
2019-02-15	0.00714	0.01195	0.01312	0.01832	0.02081	0.01946	0.01958	0.00451	0.00330	0.00987	0.01331	0.00695	0.01274
2019-02-19	0.01464	0.00096	0.00526	0.00730	0.00448	0.00377	0.00842	0.00677	0.01244	0.00387	0.00318	0.01251	0.00165
2019-02-20	0.00466	0.00384	0.00554	0.00346	0.00780	0.00338	0.00070	0.00887	0.00519	0.00114	0.00843	0.00620	0.00110
2019-02-21	-0.01091	0.00416	0.00647	0.00104	0.00296	0.00602	0.00035	0.00481	0.00581	0.00590	0.01016	0.00217	0.00147
2019-02-22	0.01091	0.00926	0.00309	0.00448	0.00296	0.00377	0.00244	0.01368	0.01512	0.01081	0.01244	0.01905	0.00220
2019-02-25	-0.00336	0.00095	0.00062	0.00309	0.00296	0.00637	0.00035	0.00522	0.00422	0.00268	0.01418	0.01821	0.00565
2019-02-26	-0.00130	0.00287	0.00858	0.00513	0.00772	0.00522	0.00729	0.00409	-0.00739	0.00582	0.00748	0.00339	0.00345
2019-02-27	0.00182	0.00224	0.00122	0.00376	0.00551	0.00037	0.00347	0.00136	0.01797	0.00948	0.00224	0.01187	0.00527
2019-02-28	0.00259	0.00513	0.00459	0.00547	0.00477	0.00925	0.00933	0.02662	0.02625	0.01209	0.00601	0.00657	0.00970
2019-03-01	-0.01065	0.00609	0.00184	0.00781	0.01093	0.00624	0.00103	0.01523	0.00667	0.00622	0.00284	0.00820	0.00294
2019-03-04	0.01194	-0.00802	0.00245	0.00237	0.00837	-0.00772	0.00863	0.00047	-0.00582	0.00533	0.00169	0.01056	0.00312
2019-03-05	-0.00414	0.00193	0.00551	0.00170	0.00255	0.00037	0.00139	0.00752	0.00179	0.00466	0.00336	0.01604	0.00092
2019-03-06	-0.00337	0.00940	0.00122	0.00408	0.00475	0.00882	0.00692	0.02827	0.00202	0.01197	0.00264	0.00751	0.00590
2019-03-07	-0.00286	0.00850	0.01074	0.01580	0.01922	0.01920	0.02089	0.00774	-0.01379	0.01379	0.00718	0.02779	0.01190
2019-03-08	0.00364	-0.00329	0.00402	0.00484	0.00373	-0.00075	0.00211	0.01183	-0.00023	0.00478	-0.01836	0.01779	-0.00169

2019-03-11	0.00544	0.01439	0.00863	0.00516	0.00889	0.00669	0.00598	0.03305	0.01042	0.01137	0.01272	0.02534	0.01081	
2019-03-12	0.00721	0.00292	-	0.00184	0.00274	0.00148	0.00074	0.00035	0.00486	0.00606	0.00259	0.01131	0.00847	0.00241
2019-03-13	0.00614	0.00646	0.01375	0.01054	0.00845	0.00960	0.01115	0.01080	0.00561	0.00258	0.01230	0.00390	0.00388	
2019-03-14	-	-		0.00333	0.00405	-	0.00367	0.00069	0.01242	0.00068	0.00305	0.00675	0.00621	0.01074
2019-03-15	0.01199	0.00289	0.01053	0.01339	0.00947	0.00802	0.01582	0.01105	0.00987	0.01447	0.00808	0.01286	0.01148	
2019-03-18	-	0.00025	0.00576	0.00537	0.00133	0.00072	0.01263	0.01356	0.01612	0.00401	0.01677	0.02407	0.01349	0.00276
2019-03-19	0.00329	0.00128	0.00208	0.00232	0.00938	0.00536	0.00336	0.00113	0.00691	0.00160	0.00844	0.00319	0.00037	
2019-03-20	0.00328	0.01254	0.00387	0.00298	0.00612	0.00604	-	0.00770	0.00786	0.02524	0.00143	0.00287	0.00055	
2019-03-21	0.00126	0.01605	0.00179	0.00563	0.00689	0.00142	0.00673	0.02322	0.00679	0.00289	0.00895	0.00143	0.00658	
2019-03-22	-	0.01266	0.02157	0.01565	0.03103	0.02803	0.02545	0.03053	0.06163	0.03489	0.04006	0.03489	0.03122	0.01081
2019-03-25	-	0.00383	0.00195	0.00152	-	0.00299	0.00290	-	0.01254	0.00446	0.01422	0.00146	0.00164	0.00055
2019-03-26	0.00714	0.00423	0.00455	0.00342	0.00298	0.00109	0.00489	0.01647	0.00164	0.00137	0.00881	0.00016	0.01099	
2019-03-27	-	0.00586	0.00293	0.00272	0.00273	-	0.00433	0.00906	0.05787	0.00704	0.01120	0.02576	0.00082	0.00347
2019-03-28	-	0.00256	0.00358	0.00636	0.00478	0.00410	0.00650	0.01081	0.03502	0.00423	0.00207	0.00149	0.00606	0.00055
2019-03-29	0.00664	0.00679	0.00212	0.00818	0.00521	0.00722	0.00315	0.00759	0.01188	0.00437	0.01145	0.01892	-	0.00055
2019-04-01	0.00381	0.01376	0.01324	0.01147	0.01402	0.00967	0.01629	0.01957	0.02222	0.02246	0.01427	0.01463	0.01253	

2019-04-02	0.00076	-	0.00223	0.00566	0.00235	0.00584	0.00178	0.00103	-	0.00072	0.01829	0.00947	-	0.00801	-	0.00364	-	0.00688
2019-04-03	0.00278	0.00413	0.00593	0.00933	0.01590	0.00959	0.01161	-	0.01423	0.01306	0.00158	0.01347	0.00663	0.00598	-	-	-	-
2019-04-04	0.00680	0.00348	0.00355	0.00066	0.00036	0.00354	0.00609	0.02209	0.00613	0.01548	0.00019	0.01018	0.00054	-	-	-	-	-
2019-04-05	-	0.00528	0.00725	0.00237	0.00232	0.00107	0.00283	0.00135	0.00450	0.00361	0.02463	0.00302	0.01131	0.00072	-	-	-	-
2019-04-08	0.01004	-	0.00063	0.00177	0.00066	0.00143	0.00388	0.00339	0.00848	0.00315	0.01530	0.01145	0.00108	0.00235	-	-	-	-
2019-04-09	-	0.00651	0.00630	0.00563	0.00729	0.00900	0.00636	0.00340	0.01345	0.00247	0.00386	-	0.00046	0.00545	-	-	-	-
2019-04-10	-	0.00706	0.00630	0.00326	0.00432	0.00721	0.00249	-	0.00403	0.00067	0.00086	0.00284	0.00216	0.00018	-	-	-	-
2019-04-11	0.01428	0.00031	0.00118	0.00298	0.00108	0.00142	0.00374	0.01863	0.00923	0.00581	0.00855	0.01333	0.00310	-	-	-	-	-
2019-04-12	0.00920	0.00188	0.00591	0.00953	0.01212	0.00954	0.00978	0.02812	0.00990	0.00366	0.00718	0.01440	0.00510	-	-	-	-	-
2019-04-15	-	0.00638	0.00063	0.00059	0.00033	0.00106	0.00070	0.00034	0.00741	0.00877	0.00517	0.01671	0.01597	0.00018	-	-	-	-
2019-04-16	0.00102	0.00629	0.00148	0.00229	0.00530	0.00211	0.00235	0.00418	0.00383	0.00796	0.01253	0.01119	0.00399	-	-	-	-	-
2019-04-17	-	0.00539	0.00284	0.00177	0.00715	0.00772	0.00667	0.01138	0.01831	0.00023	0.01151	0.01070	0.00232	-	-	-	-	-
2019-04-18	-	0.00878	0.00347	0.00354	0.00260	0.00175	0.00773	0.00802	0.01019	0.00023	0.00106	0.00622	0.00031	0.00145	-	-	-	-
2019-04-22	-	0.00572	0.00095	0.00118	0.00292	0.00280	0.00247	0.00067	0.00074	0.00904	0.00127	-	0.00789	0.00362	-	-	-	-
2019-04-23	-	0.00655	0.01099	0.00030	0.00357	0.00210	0.00317	0.00572	0.01593	0.00981	0.00918	0.00185	0.00047	0.00561	-	-	-	-
2019-04-24	-	0.01136	0.00125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

2019-04-25	-	0.00747	0.00470	0.00358	0.00393	0.00281	0.00250	0.00887	0.02439	0.00443	0.00540	0.00999	0.00489	0.00219
2019-04-26	0.01699	0.00126	0.00149	0.00229	0.00246	0.00215	0.00136	0.00413	0.00396	0.00237	0.00157	0.00473	0.00907	
2019-04-29	-	0.00316	-	0.00209	0.00718	0.00594	0.00607	0.00744	0.00048	0.00770	0.00647	0.00927	0.00251	0.00396
2019-04-30	0.00658	0.00313	0.00505	0.00422	0.00313	0.00674	0.00972	0.00387	0.00141	0.00152	0.00147	0.00314	0.00360	
2019-05-01	-	0.01559	0.00974	0.01132	0.00650	0.00662	0.00816	0.00837	0.01681	0.01296	0.01002	0.00435	0.00173	0.00343
2019-05-02	0.00133	0.00126	0.00120	0.00555	0.00105	0.00751	0.01082	0.00123	0.00047	0.00527	0.00857	0.00110	0.00036	
2019-05-03	0.00663	0.00850	0.01577	0.00653	0.01286	0.01036	0.00407	0.01320	0.00402	0.01203	0.00006	0.01718	0.01277	
2019-05-06	-	0.00079	0.00503	0.00830	0.01080	0.01007	0.01288	0.00816	0.01788	0.00663	0.00654	0.01108	0.02922	0.01024
2019-05-07	-	0.00132	0.01652	0.01984	0.02229	0.02223	0.01597	0.01930	0.00844	0.02016	0.01633	0.01985	0.03093	0.01840
2019-05-08	-	0.01279	0.00321	0.00061	0.00704	0.01065	0.00365	0.00278	0.01950	0.00121	0.01186	0.00738	0.00099	0.00609
2019-05-09	-	0.00511	0.00451	0.00213	0.00570	0.00673	0.00548	0.00627	0.01527	0.00121	0.00655	0.00862	0.01677	0.00650
2019-05-10	-	0.01412	0.00547	0.00364	0.00636	0.00708	0.00220	0.00904	0.00099	0.00219	0.01014	0.00541	0.00651	0.00687
2019-05-13	-	0.01294	0.02668	0.01958	0.02399	0.02936	0.02106	0.01816	0.03566	0.02491	0.01491	0.02660	0.03883	0.02282
2019-05-14	-	0.00111	0.00919	0.00892	0.01325	0.00904	0.00744	0.00527	0.00334	0.00573	0.01177	0.00310	0.01663	0.01390
2019-05-15	-	0.00278	0.00294	0.00214	0.00572	0.00968	0.00074	0.00525	0.01369	0.00025	0.00180	0.00040	0.00914	0.00149
2019-05-16	-	0.00334	0.00714	0.00549	0.00902	0.00923	0.00812	0.01248	0.02077	0.00722	0.00135	0.00956	0.00404	0.00409

2019-05-17	-0.00503	0.00681	0.00671	0.00534	0.00887	0.00442	0.00518	0.01769	0.00778	0.00541	0.00367	0.03258	0.00372
2019-05-20	-0.00422	0.00457	0.00460	0.01042	0.01183	0.00296	0.00521	0.01954	0.00683	0.00900	0.01632	0.02938	0.00542
2019-05-21	0.00953	0.01058	0.00552	0.00707	0.00898	0.00627	0.00486	0.04002	0.00405	0.00112	0.00111	0.01506	0.00690
2019-05-22	-0.01574	0.00535	0.00798	0.00504	0.00394	0.00775	0.00382	0.00254	0.00761	0.00653	0.00127	0.01079	0.00822
2019-05-23	-0.00940	0.01442	0.01272	0.01358	0.01301	0.01644	0.00873	0.00688	0.00844	0.00702	0.02491	0.01884	0.00753
2019-05-24	-0.00057	0.00527	0.01117	0.01290	0.00725	0.01607	0.01081	0.00332	0.00026	0.00410	0.01493	0.00581	0.01537
2019-05-28	-0.00632	0.01156	0.00993	0.01188	0.00834	0.01532	0.00766	0.02667	0.02286	0.01148	0.01493	0.00780	0.00841
2019-05-29	0.00173	0.00667	0.00814	0.00892	0.01209	0.00832	0.00878	0.01576	0.01097	0.01399	0.01657	0.00307	0.00470
2019-05-30	0.00373	0.00134	0.00345	0.00584	0.00515	0.00647	0.00948	0.01070	0.00544	0.01425	0.00246	0.00054	0.00451
2019-05-31	-0.00286	0.01311	0.00754	0.00687	0.01328	0.00883	0.01691	0.00699	0.00440	0.03705	0.00670	0.00217	0.01075
2019-06-03	0.01023	0.00473	0.00221	0.00756	0.00777	0.00921	0.00673	0.00742	0.02917	0.00584	0.00939	0.00631	0.00586
2019-06-04	0.00198	0.02199	0.01158	0.01258	0.01971	0.02527	0.01715	0.01420	0.01178	0.01834	0.02266	0.00036	0.01144
2019-06-05	0.00563	0.00755	-0.00093	0.00236	0.00362	0.00748	0.00174	0.02378	0.00700	0.00642	0.01151	0.00866	0.00056
2019-06-06	0.00476	0.00457	0.00807	0.00067	0.00181	0.00785	0.00658	0.01576	0.00806	0.00757	0.00330	0.00054	0.00112
2019-06-07	0.01936	0.00907	0.01198	0.02100	0.00901	0.01184	0.01201	0.00896	0.00605	0.00368	0.01908	0.01099	0.01202
2019-06-10	-0.00329	0.00579	0.00153	0.00231	0.00143	0.00367	0.00239	-0.00778	0.00627	0.02918	0.00827	0.01758	0.00459

2019-06-11	0.00630	-0.00096	0.00517	0.00623	0.00678	0.00694	0.00068	0.02523	0.01930	0.00534	0.00118	0.01398	0.00329
2019-06-12	-0.00410	-0.00161	0.00761	0.00953	0.00714	0.01209	0.00820	0.01324	0.01010	0.00400	0.00427	0.01875	0.01119
2019-06-13	0.00027	0.00577	0.00122	0.00033	0.00358	0.00880	0.00103	0.01000	0.00198	0.00558	0.00192	0.00194	0.00111
2019-06-14	-0.00137	0.00449	0.00858	0.00729	0.01113	0.00476	0.00862	0.02270	0.01418	0.00741	0.00313	0.01172	0.00259
2019-06-17	-0.02278	0.00483	0.02810	0.01983	0.02783	0.03245	0.01852	0.01263	0.01872	0.02420	0.01620	0.00018	0.00613
2019-06-18	0.00895	0.01091	0.01196	0.01983	0.01803	0.02212	0.01053	0.02603	0.00966	0.00874	0.01698	0.03199	0.00594
2019-06-19	-0.00111	0.00414	0.00312	0.00729	0.00291	0.00555	0.00418	0.01138	0.00454	0.00844	0.00935	0.00981	0.00885
2019-06-20	0.02260	0.00792	0.00715	0.00888	0.01049	0.01428	0.00416	0.02012	0.01400	0.01219	0.02629	0.01631	0.00968
2019-06-21	0.00327	0.00347	0.00435	0.00229	0.00108	0.00399	0.00346	0.00429	0.00149	0.01128	0.00855	0.00558	0.00987
2019-06-24	0.00812	0.00253	0.00311	0.00328	-0.00036	0.00289	0.00103	0.00023	0.01060	0.00023	0.00261	0.00017	-
2019-06-25	-0.01084	0.00828	0.00404	0.00426	0.00760	0.01089	0.00622	0.02695	0.00221	0.00273	0.00586	0.01606	0.00442
2019-06-26	0.00814	0.00128	0.00093	0.00131	0.00435	0.00292	0.00104	0.00807	0.00319	0.00590	0.00093	0.01454	0.00148
2019-06-27	0.00081	0.00542	0.00187	0.00099	0.00325	0.00219	0.00174	0.00321	0.00442	0.01527	0.00378	0.00980	0.00406
2019-06-28	-	0.00917	0.00714	0.00720	0.01075	0.00619	0.00520	0.00069	0.00564	0.00391	-	0.00050	0.00404
2019-07-01	0.00081	0.00659	0.00494	0.00065	0.00249	0.00655	0.00380	0.00365	0.00442	0.01100	0.00526	0.01982	0.01419
2019-07-02	0.00377	0.00016	0.00369	0.00065	0.00071	0.00764	0.00207	-0.00916	0.00616	0.00068	0.01511	0.00049	0.00307

2019-07-03	0.00054	0.00856	0.00551	0.00908	0.00814	0.02506	0.01128	0.00916	0.00025	0.00205	-	0.00305	-	0.00364	0.00288
2019-07-05	0.00375	-	-	-	-	-	-	-	-	0.00248	0.00272	0.02115	-	-	-
2019-07-08	-	0.00241	0.00451	0.00278	0.00392	0.00643	0.00356	0.00897	0.00727	0.00199	0.00993	0.00650	0.01248	0.00579	-
2019-07-09	-	0.00349	0.00031	0.00527	0.00131	0.00359	0.00036	0.00139	0.00983	0.00548	0.03147	0.00050	0.00255	0.00893	-
2019-07-10	0.00617	0.00202	0.00310	0.00360	0.00216	0.01346	0.00312	0.01531	0.00846	-	0.01233	0.00272	0.00602	-	-
2019-07-11	-	0.00107	0.00295	0.00031	0.00426	0.00361	0.00456	0.00689	0.00343	0.00838	0.00923	0.00037	0.00476	0.00182	-
2019-07-12	0.00508	0.01095	0.00031	0.00458	-	0.00105	0.00069	0.00517	0.00049	0.00115	0.00297	0.00459	0.00036	-	-
2019-07-15	-	0.00294	0.00107	0.00062	0.00131	0.00613	0.00210	0.00069	0.00954	0.00221	0.01279	0.00398	0.00929	0.00073	-
2019-07-16	-	0.00533	0.00292	0.00560	0.00131	0.00324	0.00598	0.00172	0.00371	0.00615	0.00958	0.00707	0.00101	0.00746	-
2019-07-17	-	0.00345	0.00788	0.00187	0.00458	0.00761	0.00601	0.00999	0.00545	0.00569	0.00897	0.00053	0.00253	0.00091	-
2019-07-18	0.00449	0.00325	0.00499	0.00262	0.00182	0.00918	0.00069	0.01511	0.00124	0.00999	0.00982	0.00135	0.00256	-	-
2019-07-19	-	0.00317	0.00388	0.00156	0.00492	0.00621	0.02997	0.01394	0.01403	0.01146	0.00868	0.00598	-	0.00256	-
2019-07-22	-	0.00132	-	0.00031	0.00131	0.00439	0.00758	0.00140	0.00369	0.00603	0.01042	0.00135	0.00405	0.00146	-
2019-07-23	-	0.00558	0.00789	0.00373	0.00655	0.01233	0.00823	0.00945	0.01066	0.00988	0.01511	0.00533	0.01111	0.00800	-
2019-07-24	-	0.00743	0.00523	0.00373	0.00098	0.00432	0.00356	0.00452	0.00524	0.00459	0.01272	0.00557	0.00651	0.00127	-
2019-07-25	-	0.00583	0.00507	0.00876	0.01117	0.01592	0.01143	0.00835	0.01868	0.00487	0.00478	0.00295	0.00567	0.01073	-

2019-07-26	-0.00882	0.00323	0.00689	0.00494	0.00437	0.00360	0.00666	0.00773	0.00717	0.00553	0.00688	0.00200	0.00256
2019-07-29	-0.00646	0.00031	0.00312	0.00263	0.00181	0.00325	0.00176	0.00110	0.00640	0.01626	0.00178	0.00603	0.00128
2019-07-30	-0.01168	0.00215	0.01126	0.01819	0.02236	0.01899	0.02850	0.00706	0.00231	0.00762	0.01858	0.00758	0.00641
2019-07-31	-0.02015	0.01115	0.00758	0.00569	0.00595	0.00332	0.00835	0.01494	0.00957	0.01396	0.00569	0.01089	0.00074
2019-08-01	-0.01206	0.01190	0.01180	0.00471	0.00075	0.00371	0.00475	0.00835	0.01282	0.01268	0.02787	0.03145	0.00018
2019-08-02	-0.01621	0.01204	0.01487	0.01598	0.01050	0.00372	0.00110	0.00477	0.01887	0.01284	0.01557	0.01172	0.00517
2019-08-05	-0.02145	0.02813	0.02740	0.02113	0.02057	0.01238	0.01106	0.04137	0.03384	0.02696	0.03432	0.04604	0.02510
2019-08-06	-0.00176	0.01368	0.00267	0.00802	0.00269	0.00188	0.00554	0.01857	0.00554	0.01067	0.00931	0.01282	0.01263
2019-08-07	0.00932	0.00226	0.00333	0.00830	0.00650	0.00340	0.00441	0.00604	0.00907	0.01380	0.00232	0.00882	0.00691
2019-08-08	-0.01095	0.01760	0.00960	0.00960	0.00722	0.00531	0.00183	0.02470	0.02057	0.01066	0.03076	0.01327	0.00704
2019-08-09	-0.01939	0.01084	0.00860	0.00102	0.00532	0.01493	0.00404	0.00634	0.00214	0.00123	0.00306	0.01400	0.01058
2019-08-12	-0.01087	0.01323	0.00700	0.00857	0.00995	0.00232	0.01370	0.03234	-0.02628	0.02550	0.00119	0.01049	0.00957
2019-08-13	-0.00059	0.01419	0.00734	0.01130	0.00957	0.01306	0.00446	0.01976	0.01634	0.00303	0.01652	0.02033	0.01124
2019-08-14	-0.02272	0.03156	0.02353	0.03218	0.03290	0.03652	0.03129	0.04931	0.02295	0.03546	0.04793	0.02907	0.02452
2019-08-15	-0.00272	0.00297	0.00373	-	0.00632	0.00119	0.00306	0.00024	-	0.00522	0.00403	0.01409	0.00950
2019-08-16	-0.00511	0.01537	0.00978	0.01015	0.01377	0.01413	0.01591	0.00699	0.00880	0.01780	0.01904	0.01896	0.01035

2019-08-19	-0.00060	0.01194	0.00702	0.01073	0.00933	0.01470	0.00075	-0.02185	0.00549	0.00770	0.00198	0.01861	-0.00019
2019-08-20	0.00120	-0.00967	0.00669	0.00345	0.00504	0.00771	0.01057	0.00343	0.00165	0.00642	0.00676	0.00160	-0.00206
2019-08-21	-0.00300	0.01191	0.00802	0.01305	0.01544	0.01650	0.00794	0.02607	0.00055	0.01675	0.00198	0.00690	0.00337
2019-08-22	-0.00362	0.00032	0.00266	0.00547	0.00345	-	0.00526	0.02558	0.01334	0.01012	0.01447	0.01081	0.00150
2019-08-23	-0.00151	0.02527	0.01135	0.01346	0.01276	0.01960	0.01206	0.03482	0.02349	0.00920	0.02318	0.02418	0.01130
2019-08-26	-0.00728	0.00654	0.00134	0.00934	0.00891	0.01884	0.00906	0.01582	0.00950	0.00843	0.00058	0.01072	0.01448
2019-08-27	0.00909	0.00523	0.00301	0.00034	0.00116	0.01023	-	0.00359	0.00806	0.00584	0.00082	0.00271	0.00318
2019-08-28	0.00991	0.00718	0.00134	0.00172	0.00231	0.00038	0.00150	0.01096	-0.01241	0.00681	0.00257	0.00198	0.00037
2019-08-29	0.00209	0.01453	0.00698	0.01302	0.01152	0.01830	0.00337	0.02082	0.01212	0.02039	0.01725	0.01127	0.00709
2019-08-30	0.00950	0.00288	0.00562	0.00374	0.00229	0.00408	0.00112	0.01722	0.02353	0.02167	0.00243	0.00320	0.00316
2019-09-03	-0.00148	0.00674	0.00066	0.00612	0.00420	0.00445	0.00225	0.02620	-0.01638	0.01334	0.00567	0.00337	0.00056
2019-09-04	0.01001	0.01088	0.01668	0.01725	0.01519	0.01687	0.01082	0.03107	0.00596	0.02173	0.02368	0.01745	0.00555
2019-09-05	0.00933	0.01548	0.00259	0.00935	0.00788	0.00580	0.01034	0.01015	0.02378	0.01046	0.01006	0.01784	0.00716
2019-09-06	-0.00058	0.00250	0.00226	0.00066	0.00410	0.00145	0.00073	0.01242	0.00908	0.00941	0.00887	0.00051	0.00347
2019-09-09	-0.01139	0.00421	0.00259	0.00066	0.00668	0.00289	0.00439	-	0.00737	0.00281	0.01295	0.00513	0.00654
2019-09-10	0.00293	0.00450	0.00613	-	0.00443	-	0.01018	0.00285	-	0.00212	0.00043	-0.00393	0.00289

2019-09-11	0.00990	0.00772	0.00737	0.00398	0.00294	0.00617	0.00253	0.01418	0.01136	0.00470	0.01320	0.01006	0.00881	
2019-09-12	0.00549	-	0.00092	0.00064	0.00858	0.00622	0.01731	0.00902	0.00888	0.01706	0.00257	0.00577	0.00744	0.00660
2019-09-13	0.01089	0.00062	0.00921	0.00230	0.00364	0.00143	0.00502	0.01665	0.01183	0.00814	0.00230	0.00738	0.01167	
2019-09-16	-	-	-	-	-	-	-	-	-	-	-	-	-	
2019-09-17	0.00343	0.00062	0.00634	0.01386	0.01097	0.01583	0.01368	0.00165	0.00209	0.00232	0.00496	0.01059	0.00529	
2019-09-18	-	0.00258	0.00154	0.00539	0.00794	0.00403	0.00109	0.00072	0.01197	0.00026	0.01750	0.00458	0.00237	0.00371
2019-09-19	-	-	-	-	-	0.00651	0.00253	0.00585	0.00210	0.01009	0.00115	0.00492	0.00212	
2019-09-20	-	0.00029	0.00169	0.00538	0.00395	0.00146	0.00216	0.00505	0.01633	0.00158	0.00185	0.00230	0.00392	0.00739
2019-09-21	-	0.00116	0.00510	0.00411	0.00066	0.00550	0.00505	0.00036	0.00666	0.00210	0.01011	0.00846	0.00565	0.00228
2019-09-23	-	0.00029	0.00164	0.00159	0.00660	0.00590	0.00326	0.00722	0.00857	0.01032	0.00298	0.00426	0.00638	0.00105
2019-09-24	-	0.00318	0.01349	0.00765	0.00431	0.00668	0.00546	-	0.00407	0.00721	0.01014	0.00155	0.01709	0.00141
2019-09-25	-	0.00232	0.00500	-	-	-	-	-	-	-	-	-	-	
2019-09-26	-	0.00978	0.00312	0.00799	0.00201	0.00300	0.00693	0.00363	0.00712	0.00484	0.00373	0.00078	0.00702	0.00175
2019-09-27	-	0.00229	0.00502	0.00032	0.00067	0.00299	0.00584	0.00109	0.00071	0.00988	0.00750	0.00427	0.02208	0.01441
2019-09-30	-	0.00143	0.00408	0.00127	0.00699	0.00335	0.00838	0.00685	0.00237	0.00559	0.00446	0.00981	0.00968	0.00459
2019-10-01	-	0.03129	0.01483	0.01120	0.01202	0.00971	0.01021	0.00721	0.01074	0.00536	0.00846	0.00597	0.00536	0.00442
2019-10-02	-	0.00561	0.01732	0.02905	0.02723	0.02277	0.02411	0.02232	0.02183	0.00350	0.01427	0.00752	0.00018	0.01247

2019-10-03	0.00620	0.00645	0.00562	0.00927	0.00498	0.00673	0.00369	0.01025	0.01179	0.01379	0.01798	0.01742	0.00501	
2019-10-04	0.00995	0.01262	0.00755	0.00851	0.00988	0.00484	0.00515	0.02185	0.01165	0.03024	0.01192	0.00106	0.01153	
2019-10-07	-	-	-	-	-			-	-	-	-	-	-	
2019-10-08	0.00789	0.00429	0.00098	0.00102	0.00151	0.00370	0.00220	0.02989	0.00872	0.01477	0.01720	0.00726	0.00637	
2019-10-09	-	-	-	-	-	-	-	-	-	-	-	-	-	
2019-10-09	0.01004	0.00839	0.00397	0.01195	0.01142	0.01043	0.00886	0.01346	0.01100	0.00305	0.00269	0.01363	0.00871	
2019-10-10	0.00680	0.00800	0.01442	0.01181	0.00604	0.01362	0.01169	0.00097	0.01115	0.02021	0.00489	0.01362	0.00124	
2019-10-11	0.02187	0.01424	0.02918	0.01729	0.02674	0.01704	0.02084	0.02542	0.02451	0.01438	0.00935	0.01932	0.01232	
2019-10-14	-	0.00142	0.00825	0.00231	0.00183	0.00144	0.00142	0.00237	0.00465	0.00113	0.00265	0.00363	0.00438	
2019-10-15	-	0.00144	0.00971	0.01424	0.01215	0.01236	0.01110	0.01309	0.00786	0.00310	0.00158	0.00163	0.01187	0.01483
2019-10-16	0.00231	0.00422	0.00126	0.00098	0.00576	0.00497	0.00631	0.01331	0.00310	0.00743	0.00570	0.00171	0.00208	
2019-10-17	0.01072	0.00234	0.00690	0.00293	0.00573	0.00177	0.00105	0.00758	0.01234	0.00292	0.00102	0.00153	0.00261	
2019-10-18	-	0.00697	0.00172	0.00031	0.00260	0.00321	0.00423	0.00418	0.00900	0.00102	0.00248	0.00779	0.01632	0.00192
2019-10-21	0.00406	0.00980	0.00437	0.00033	0.00886	0.00527	0.00381	0.00892	0.05241	0.01055	0.00662	0.01120	0.00712	
2019-10-22	0.00464	0.00170	0.00125	0.00523	0.00460	0.00703	0.00416	0.02424	0.00973	0.00291	0.01704	0.00653	0.00121	
2019-10-23	0.00663	0.00185	0.00930	0.00555	0.00671	0.00035	0.00520	0.01382	0.01010	0.00246	0.01032	0.00397	0.00414	
2019-10-24	0.00086	0.00339	0.00370	0.00358	0.00211	0.00247	0.00277	0.00745	0.01471	0.00045	0.00572	0.00311	0.00052	

2019-10-25	0.00515	0.00864	-	0.00185	0.00356	-	0.00176	0.00351	-	0.01216	-	0.01498	0.00089	0.01254	0.01098	-	0.00052
2019-10-28	0.00314	0.00632	0.00430	0.00452	0.00632	0.00455	0.00415	0.01025	0.00602	0.00823	0.00506	0.01238	0.00292				
2019-10-29	0.00313	0.00061	-	0.00338	0.00354	0.00280	0.00279	0.00277	0.01137	0.01845	0.00355	0.00209	0.01085	0.00428			
2019-10-30	-	-		0.00705	0.00640	0.00385	0.00104	0.00765	0.01468	0.03450	0.00200	0.00758	0.00017	0.00273			
2019-10-31	0.00653	0.00523	0.00582	0.00447	0.00245	0.00347	0.00210	0.01513	0.00664	0.01278	0.00205	0.00376	0.00017				
2019-11-01	0.01988	0.01001	0.00460	0.00638	0.00802	0.01205	0.00697	0.01093	0.01950	0.01856	0.02299	0.01528	0.00984				
2019-11-04	-	0.00528	0.00617	0.00427	0.00571	0.01003	0.00988	0.00658	0.00155	0.00741	0.00244	0.00734	0.01654	0.00673			
2019-11-05	-	0.00896	0.00045	0.00183	0.00222	0.00414	0.00476	0.00346	0.00510	0.02932	0.00982	0.00292	0.00562	0.00134			
2019-11-06	-	0.00394	0.00105	0.00091	0.00285	0.00069	0.00239	0.00451	0.02032	0.01694	0.01115	0.00485	0.00016	0.00218			
2019-11-07	-	0.00254	0.00554	-	0.00183	0.00063	0.00482	0.00068	0.00035	0.00428	0.00806	0.00795	0.00246	0.01195	0.00585		
2019-11-08	-	0.01876	0.00149	0.00581	0.00095	0.00310	0.00612	0.00348	0.03450	0.00387	0.00951	0.00576	0.00506	0.00050			
2019-11-11	-	0.00345	0.00104	-	0.00158	0.00311	0.00170	0.00070	0.01385	0.02569	0.00089	0.00458	0.01218	0.00251			
2019-11-12	-	0.00926	0.00045	0.00184	0.00063	0.00035	0.00812	0.01475	0.01921	0.04926	0.02226	0.01759	0.00648	0.00217			
2019-11-13	-	0.00262	0.00194	0.00123	0.00189	0.00208	0.01084	0.01246	0.00916	0.01132	0.00479	0.01927	0.01444	0.00351			
2019-11-14	-	0.00380	0.00179	0.00184	0.00189	0.00208	0.00068	0.00215	0.00188	0.02270	0.00683	0.00752	0.00152	0.00436			
2019-11-15	-	0.01279	0.00876	0.00245	0.00691	0.00760	0.00442	0.00893	0.01263	0.10179	0.01397	0.02035	0.00203	0.00587			

2019-11-18	0.00662	0.00044	0.00306	0.00156	0.00103	0.00136	0.00391	0.01901	-	0.00786	0.00795	0.00219	0.00084	
2019-11-19	-	0.00402	0.00237	0.00092	0.00376	0.00103	0.00545	0.00071	0.00499	0.01392	0.00023	0.01050	0.01023	0.00318
2019-11-20	-	0.00375	0.00237	0.01012	0.00503	0.00656	0.00342	0.00533	0.00095	0.00030	0.00384	0.00070	0.01023	0.00302
2019-11-21	-	0.00058	0.00119	0.00093	0.00095	0.00104	0.00171	0.00142	0.01912	0.01846	0.00113	0.00158	0.00067	0.00101
2019-11-22	-	0.00290	0.00163	0.00585	0.00095	0.00035	0.00377	0.00213	0.00908	0.01250	0.00745	0.00965	0.00152	0.00067
2019-11-25	0.00232	0.00739	0.01371	0.00409	0.00449	0.00445	0.00566	0.01048	0.00568	0.00135	0.00888	0.01735	0.00686	
2019-11-26	-	0.00290	0.00324	0.00242	0.00220	0.00207	0.00341	0.00177	0.01439	0.02109	0.01543	0.02279	0.00215	0.00167
2019-11-27	-	0.00349	0.00264	0.00665	0.00283	0.00069	0.00649	0.00318	-	0.01990	0.00091	0.00992	0.00362	0.00200
2019-11-29	0.00058	0.00529	0.00786	0.00473	0.00483	0.00930	0.00070	0.00875	0.01193	0.00573	0.00328	0.01926	0.00955	
2019-12-02	0.00320	0.00932	0.00701	0.01016	0.00937	0.01464	0.01384	0.01403	0.00698	0.00970	0.00152	0.00285	0.00202	
2019-12-03	-	0.00904	0.00731	0.01200	0.00544	0.00383	0.00421	0.00179	0.00116	0.00364	0.00652	0.00560	0.00522	0.00387
2019-12-04	0.00176	0.00478	0.01016	0.00735	0.00762	0.01113	0.01135	0.01130	0.03406	0.00582	0.02573	0.00438	0.01119	
2019-12-05	0.00554	0.00268	0.00368	0.00286	0.00415	0.00381	0.00424	0.00913	0.03724	0.00325	0.00779	0.00954	0.00399	
2019-12-06	0.00058	0.00843	0.01162	0.00633	0.00242	0.00381	0.01057	0.01578	0.00153	0.00487	0.00965	0.00813	0.01144	
2019-12-09	0.00116	0.00399	0.00061	0.00728	0.00658	0.01393	0.00316	0.00269	0.00337	0.00279	0.00441	0.00863	0.00562	
2019-12-10	-	0.00087	0.00148	0.00030	0.00539	0.00243	0.01047	0.00106	0.00404	0.00214	0.01679	0.00096	0.00582	-

2019-12-11	0.00983	0.00269	0.00182	0.00473	0.00863	0.00588	0.00981	0.01142	0.01581	0.01741	0.00876	0.01644	0.00215	
2019-12-12	0.00430	0.00762	0.00635	0.00721	0.00856	0.01507	0.01419	0.01940	0.01110	0.01181	0.01282	0.01633	0.00248	
2019-12-13	0.00799	0.00015	0.02675	0.00343	0.00272	0.00580	0.00412	0.00240	0.01215	0.01320	0.00351	0.00370	0.00264	
2019-12-16	-	0.00999	0.00249	0.00293	0.00961	0.00981	-	0.01274	0.00285	0.00059	0.00153	0.00090	0.00514	0.00727
2019-12-17	0.00258	0.00059	0.01770	0.00247	0.00811	0.00783	0.00035	0.00066	0.00798	0.00066	0.00816	0.01115	0.00216	
2019-12-18	0.00827	0.00020	0.00119	0.00434	0.00681	0.00068	0.00208	0.01439	0.00536	0.01304	0.00824	0.00443	0.00400	
2019-12-19	0.00904	0.00284	0.00298	0.00310	0.00034	0.00407	0.00069	0.00776	0.00209	0.00541	0.01407	0.00253	0.00100	
2019-12-20	0.02088	0.00640	0.00060	0.00124	0.00102	0.00539	-	0.00647	0.00712	0.00479	0.00074	0.00457	0.00067	
2019-12-23	0.00248	0.00102	0.00238	0.00432	0.00102	0.00135	-	0.00968	0.01070	0.00372	0.00806	0.00063	0.00084	
2019-12-24	0.00548	0.00032	0.00238	0.00216	0.00068	0.00371	0.00174	0.00086	0.00090	0.00351	0.01556	0.00063	0.00402	
2019-12-26	0.01195	0.00278	0.00533	0.00584	0.00341	0.00304	0.00589	0.02183	0.00239	0.00635	0.00106	0.00892	0.00268	
2019-12-27	-	0.00162	0.00087	0.00354	0.00184	0.00509	0.00202	0.00483	0.00800	0.00328	0.00218	0.00173	0.00125	0.00184
2019-12-30	0.00135	0.00392	0.00502	0.00460	0.01191	0.00814	0.00483	0.00233	0.01082	0.02025	0.00101	0.00421	0.00894	
2019-12-31	0.00081	0.00363	0.00854	0.00583	0.00648	0.00408	0.00069	0.00528	0.00692	0.00111	0.00072	0.00141	0.00321	
2020-01-02	0.00512	0.00362	0.00147	0.00701	0.01619	0.01347	0.01305	0.02003	0.02284	0.02695	0.00673	0.03285	0.01041	
2020-01-03	-	0.00809	0.00740	0.00912	0.01038	0.01926	0.01381	0.01478	0.00871	0.00677	0.00738	0.00364	0.01890	0.01109

2020-01-06	0.00108	-	0.00117	0.00619	0.00459	0.00136	0.00406	0.00484	-	0.01554	0.00385	0.00456	0.00283	-	0.00169	0.00354
2020-01-07	-	0.00406	0.00058	-	-	-	-	-	-	0.00064	0.01032	0.00937	0.00568	0.00431	0.00168	
2020-01-08	-	0.00354	0.00407	0.00089	0.00337	0.00917	0.00541	0.00209	-	0.00446	0.00497	0.00893	0.00041	0.00291	0.00017	
2020-01-09	-	0.00355	0.00535	0.00059	0.00092	0.00909	0.00572	-	0.00769	0.00497	0.00065	0.00722	0.01081	0.00703		
2020-01-10	-	0.00082	0.00130	0.00741	0.00460	0.00268	0.00504	0.00559	0.00818	0.01196	0.00540	0.00215	0.00649	0.00703	-	
2020-01-13	-	0.00191	0.00662	0.00267	0.00521	0.00268	0.00067	0.00420	0.00861	0.00465	0.00687	0.00357	0.01922	0.00570		
2020-01-14	-	0.00301	0.00029	0.00355	0.00061	0.00067	0.00202	0.00560	0.00321	0.00584	0.00623	0.00363	0.01143	0.00033		
2020-01-15	-	0.00055	0.00187	-	0.00061	0.00302	0.00576	0.00281	0.02312	0.01654	0.00302	0.00405	0.00404	0.00368	-	
2020-01-16	-	0.00300	0.00845	0.00354	0.00397	0.00235	0.01249	0.01085	0.00284	0.00327	0.01968	0.00043	0.00612	0.00067		
2020-01-17	-	0.00380	0.00228	0.00382	0.00395	0.00168	0.00535	0.00555	0.01900	-	0.01702	0.00145	0.00431	0.00067		
2020-01-21	-	0.00543	0.00114	0.01062	0.01160	0.00101	0.01614	0.01149	0.02359	0.04306	0.00837	0.00583	0.03685	0.00537		
2020-01-22	-	0.00598	0.00285	0.00414	0.00338	0.00101	0.00544	0.00140	0.01823	0.00031	0.00335	0.00366	0.00537	0.00453		
2020-01-23	-	0.00271	0.00184	0.00414	0.00185	0.00539	0.00170	0.00105	0.01176	0.01091	0.00778	0.00625	0.01309	0.00117		
2020-01-24	-	0.00845	0.00612	0.00208	0.00495	-	0.00068	0.00881	0.01219	0.00438	0.01103	0.00333	0.01720	0.00386		
2020-01-27	-	0.02411	0.01495	0.02132	0.02194	0.02287	0.02099	0.01498	0.03815	0.03363	0.02856	0.02625	0.03859	0.01814		
2020-01-28	-	0.00309	0.01009	0.00696	0.00946	0.00791	0.02676	0.01179	0.02254	0.00739	0.02557	0.00512	0.00995	0.00886		

2020-01-29	-0.00904	0.00316	-0.00060	0.00313	-0.00137	0.00237	0.00425	-0.01786	0.01582	0.01043	-0.00132	0.00969	-0.00323
2020-01-30	-0.01056	-	-0.00060	0.00313	-0.00447	0.00169	0.00705	-0.00334	0.00325	0.00979	0.00607	0.01539	-0.00136
2020-01-31	-0.01183	0.02151	0.01520	0.01423	-0.01703	0.02674	0.01629	-0.02371	0.00520	0.01965	0.00458	0.01895	-0.01649
2020-02-03	-0.00495	0.00732	0.00769	0.00381	-0.00210	0.00485	0.00036	-0.01519	0.01360	0.01922	0.00307	0.01421	0.00759
2020-02-04	-0.02450	0.01448	0.01562	0.01449	-0.01768	0.01714	0.01665	-0.00651	0.02258	0.01043	0.02276	0.03766	0.01501
2020-02-05	-0.00794	0.01442	0.00606	0.00872	-0.01128	0.01384	0.01257	-0.00602	0.01281	0.00191	0.01267	0.00016	0.00893
2020-02-06	-0.01136	0.00311	0.00272	0.00495	-0.00305	0.01001	0.00553	-0.01839	0.00373	0.01345	0.00781	0.00489	0.00752
2020-02-07	-0.01439	0.00723	0.01158	0.00588	-0.00953	0.00934	0.00415	-0.01805	0.01570	0.00625	0.00449	0.01043	0.00971
2020-02-10	-0.00552	0.00454	0.00367	0.00093	-	0.00100	0.00277	-0.00903	0.01178	0.00087	0.01321	0.01090	-0.00118
2020-02-11	-0.00697	0.00480	0.00821	0.00279	-0.00817	0.00534	0.00448	-0.02117	0.00543	0.02142	0.01058	0.01389	0.00504
2020-02-12	-0.00663	0.00534	0.00754	0.00678	-0.00744	0.00531	0.00480	-0.00454	0.00698	0.01410	0.01418	0.01919	-0.00487
2020-02-13	-0.00317	0.00196	0.00603	0.00678	-0.00811	0.00865	0.00652	-0.01003	0.01723	0.00650	0.00444	0.01378	-0.00879
2020-02-14	-0.00289	0.00028	0.00455	0.00186	-0.00068	-	0.00515	0.00434	0.00450	0.00336	0.00370	0.00093	-0.00750
2020-02-18	-0.00784	0.00112	0.00487	0.00310	-0.00920	0.01129	0.00342	-0.01239	0.02367	0.00483	0.00631	-	0.01500
2020-02-19	-0.00900	0.00280	0.00335	0.00589	-0.00988	0.00494	0.00545	-0.01353	0.00724	0.00168	0.00720	0.00738	-0.00174
2020-02-20	-0.00087	-0.00056	-0.00396	-0.00464	-0.00544	-0.01223	-0.01162	-0.02467	-0.00464	-0.01611	-0.00534	-0.01140	-0.00646

2020-02-21	-0.00029	0.00912	0.00122	0.00435	0.00684	0.01138	0.00241	0.00891	0.00232	0.00407	0.01462	0.00388	0.00844
2020-02-24	-0.01751	0.02992	0.04120	0.04265	0.04349	0.05534	0.03970	0.05122	0.03780	0.03449	0.02911	0.03400	0.03431
2020-02-25	-0.02927	0.02919	0.02158	0.02436	0.02284	0.02302	0.03279	0.01423	0.01037	0.01634	0.00847	0.00581	0.00165
2020-02-26	-0.00425	0.00751	0.00261	0.00100	0.00331	0.01302	0.00812	0.01444	0.01647	0.00998	0.02031	0.01206	0.00493
2020-02-27	-0.04165	0.04564	0.03861	0.02705	0.02571	0.01703	0.02794	0.03690	0.02505	0.04024	0.03087	0.01190	0.03484
2020-02-28	-0.00861	0.01174	0.00579	0.00860	0.01024	0.00476	0.00682	0.01524	0.02346	0.01218	0.03481	0.00516	0.00113
2020-03-02	0.02059	0.04281	0.00782	0.02357	0.01552	0.00073	0.02219	0.02650	0.05905	0.03262	0.02486	0.01327	0.01257
2020-03-03	-0.00629	0.02572	0.01261	0.01360	0.01285	0.02038	0.01650	0.02311	0.01373	0.00070	0.01258	0.00557	0.01295
2020-03-04	0.02800	0.03939	0.03934	0.03431	0.03108	0.03459	0.03457	0.00751	0.01966	0.01979	0.01008	0.01600	0.02149
2020-03-05	-0.02046	0.02722	0.02944	0.03568	0.03184	0.03646	0.04560	0.05622	0.05135	0.04093	0.02017	0.00220	0.01828
2020-03-06	0.03150	0.01941	0.01747	0.02218	0.00995	0.01512	0.01814	0.04349	0.00146	0.03748	0.03566	0.02182	0.00965
2020-03-09	-0.06994	0.07618	0.09908	0.09745	0.09048	0.13125	0.09640	0.16403	0.05847	0.11560	0.17154	0.04008	0.05229
2020-03-10	0.04009	0.04274	0.03744	0.03492	0.03230	0.01423	0.01151	0.09656	0.02266	0.04251	0.02837	0.03766	0.02941
2020-03-11	-0.06323	0.05476	0.06099	0.06074	0.05745	0.05183	0.04820	0.10026	0.04984	0.05168	0.08618	0.03481	0.03443
2020-03-12	-0.12611	0.10820	0.10536	0.13563	0.13569	0.17013	0.15772	0.18205	0.09807	0.07807	0.12621	0.07818	0.10319
2020-03-13	0.02582	0.08232	0.04165	0.07011	0.04778	0.10638	0.08532	0.16232	0.03334	0.03645	0.00163	0.05142	0.03229

2020-03-16	-	0.09841	0.12838	0.12772	0.13529	0.12482	0.14007	0.14432	0.26257	0.14553	0.16547	0.15985	0.10277	0.06819
2020-03-17	-	0.04939	0.05182	0.04215	0.04082	0.03566	0.03903	0.07706	0.12264	0.04055	0.07506	0.01234	0.04845	0.04789
2020-03-18	-	0.12114	0.05707	0.08565	0.07082	0.07375	0.02204	0.07596	0.16788	0.16972	0.08785	0.16025	0.05246	0.02140
2020-03-19	-	0.03112	0.00525	0.01812	0.00199	0.00663	0.00054	0.02668	0.03717	0.07763	0.00523	0.05814	0.00723	0.01387
2020-03-20	-	0.02141	0.04956	0.02705	0.01973	0.00549	0.00866	0.01516	0.00584	0.01463	0.05609	0.00211	0.00266	0.00244
2020-03-23	-	0.02707	0.03096	0.02014	0.00098	0.01846	0.01445	0.00272	0.07002	0.04467	0.07365	0.03339	0.00342	0.01047
2020-03-24	-	0.00566	0.09372	0.10927	0.08705	0.10218	0.06480	0.07088	0.11383	0.03939	0.06137	0.04625	0.05761	0.06714
2020-03-25	-	0.06289	0.01264	0.04066	0.04813	0.02541	0.03859	0.03780	0.07073	0.05657	0.07915	0.12134	0.01948	0.01868
2020-03-26	-	0.04195	0.05834	0.06032	0.05121	0.03991	0.03438	0.04625	0.04452	0.05638	0.04861	0.11794	0.03092	0.03237
2020-03-27	-	0.06023	0.03008	0.03823	0.04143	0.03991	0.04063	0.05902	0.09573	0.03169	0.08345	0.02887	0.05129	0.00120
2020-03-30	-	0.00672	0.02971	0.01783	0.00338	0.01876	0.00721	0.00739	0.00879	0.00195	0.00863	0.03523	0.02231	0.01208
2020-03-31	-	0.03080	0.02021	0.00462	0.01187	0.00186	0.00576	0.00295	0.01850	0.05402	0.02392	0.01506	0.00227	0.02795
2020-04-01	-	0.03438	0.04960	0.04936	0.05480	0.05257	0.04430	0.04273	0.04293	0.02901	0.06071	0.06164	0.03628	0.04875
2020-04-02	-	0.00492	0.01850	0.02262	0.01609	0.01703	0.02485	0.01225	0.02148	0.04730	0.00263	0.04382	0.02962	0.01267
2020-04-03	-	0.02439	0.01850	0.03057	0.03153	0.01458	0.03904	0.00560	0.05665	0.00722	0.03869	0.03091	0.01185	0.02272
2020-04-06	-	0.03283	0.07683	0.04382	0.06124	0.06491	0.05753	0.04343	0.07385	0.04183	0.05583	0.05009	0.03857	0.05737

2020-04-07	0.01841	0.00184	0.00677	0.00344	0.00777	-	0.00146	0.04297	-	0.01696	0.01394	0.01519	0.00017	0.01069
2020-04-08	0.01595	0.03854	0.01672	0.01701	0.01221	0.01293	0.00923	0.04628	0.03703	0.01662	0.02971	0.00086	0.00241	-
2020-04-09	0.03115	0.01717	0.03543	0.02828	0.03534	0.02258	0.02104	-	0.02008	0.01246	0.01018	0.00137	0.01299	-
2020-04-13	0.02051	0.01540	0.01127	0.01487	0.01575	0.01878	0.00760	0.00744	0.00248	0.00035	0.00289	0.00171	0.00418	-
2020-04-14	0.01571	0.02851	0.00886	0.01364	0.02568	0.00896	0.01091	0.01327	0.00905	0.01720	0.00363	0.02115	0.01817	-
2020-04-15	-	0.01978	0.02922	0.04303	0.04578	0.04752	0.05553	0.03602	0.02472	0.02152	0.05434	0.02814	0.01179	0.01003
2020-04-16	0.00731	0.00528	0.00626	0.00647	0.00271	0.00498	0.01876	0.01966	0.00967	0.00700	0.00872	0.01112	0.00854	-
2020-04-17	0.00565	0.02907	0.03355	0.04234	0.04030	0.02416	0.02412	0.02204	0.00883	0.04273	0.01614	0.00784	0.01327	-
2020-04-20	-	0.01378	0.02172	0.02074	0.01588	0.01575	0.01720	0.02712	0.01236	0.01902	0.02186	0.02620	0.00150	0.01547
2020-04-21	-	0.02353	0.03259	0.02791	0.01957	0.02274	0.02002	0.01409	0.03346	0.02989	0.03091	0.05456	0.02392	0.00944
2020-04-22	0.01903	0.01891	0.02380	0.00813	0.01211	0.00755	0.01109	0.03506	0.00919	0.00893	0.01062	0.02175	0.01720	-
2020-04-23	-	0.00857	0.00425	0.00329	0.00856	0.00940	0.00453	0.01261	0.03922	0.01256	0.01342	0.01833	0.00737	0.00139
2020-04-24	-	0.00285	0.01549	0.00656	0.01366	0.01252	0.01401	0.00859	-	-	-	-	-	-
2020-04-27	0.00204	0.02075	0.01621	0.01765	0.02066	0.02600	0.01151	0.04154	0.03424	0.02623	0.00132	0.01415	0.01366	-
2020-04-28	0.00810	0.00512	0.01040	0.00457	0.00174	0.00387	0.00595	0.06129	0.04805	0.04248	0.02479	0.00314	0.01443	-
2020-04-29	0.03683	0.02952	0.03364	0.03383	0.04127	0.03926	0.04307	0.05428	0.02924	0.05838	0.03420	0.01677	0.01742	-

2020-04-30	-	0.01726	0.02511	0.02927	0.01902	0.01724	0.01920	0.01624	0.04981	0.02006	0.03557	0.01379	0.02242	0.02857
2020-05-01	-	0.01635	0.03028	0.02649	0.01939	0.02187	0.02054	0.01945	0.04519	0.02088	0.04079	0.03207	0.03893	0.01774
2020-05-04	0.02658	0.00314	0.00487	0.01005	0.00652	0.00775	0.00838	0.01264	0.00162	0.04182	0.00390	0.00363	0.00493	-
2020-05-05	0.01708	0.00936	0.00121	0.00042	0.00044	0.00097	0.00845	0.00841	0.01088	0.01356	0.00647	0.01389	0.00964	-
2020-05-06	-	0.00463	0.00797	0.00730	0.01228	0.01184	0.01521	0.01307	0.02177	0.00080	0.01151	0.01099	0.00730	0.00766
2020-05-07	0.01915	0.01176	0.01415	0.02150	0.02053	0.00395	0.01007	0.03246	0.01785	0.01017	0.02832	0.00825	0.01488	-
2020-05-08	0.00794	0.02478	0.01751	0.01695	0.01927	0.02336	0.01343	0.04319	0.00513	0.03966	0.02313	0.02353	0.01696	-
2020-05-11	-	0.00642	0.00034	0.00872	0.00989	0.00681	0.00627	0.01393	0.03255	0.02969	0.01206	0.01059	0.00294	0.00951
2020-05-12	-	0.01296	0.02720	0.01080	0.01712	0.01549	0.00194	0.00250	0.02501	0.01311	0.02021	0.02216	0.00771	0.01314
2020-05-13	-	0.02016	0.02196	0.01500	0.02258	0.01397	0.01663	0.01308	0.00408	0.03271	0.02336	0.04961	0.00394	0.00478
2020-05-14	-	0.00078	0.01226	0.01191	0.00735	0.00928	0.01340	0.00051	0.02733	0.01271	0.01260	0.00702	0.00279	0.01500
2020-05-15	0.01902	0.00104	0.00124	0.00130	0.00752	0.00250	0.01121	0.01693	0.02515	0.02258	0.01145	0.00859	0.00174	-
2020-05-18	0.04031	0.04121	0.04490	0.05482	0.05777	0.05127	0.05337	0.06355	0.05745	0.05159	0.04004	0.03886	0.02464	-
2020-05-19	-	0.01788	0.01107	0.01756	0.02241	0.01003	0.03241	0.04520	0.01231	0.00695	0.03887	0.00453	0.00351	0.01177
2020-05-20	0.03255	0.01905	0.02032	0.02035	0.02775	0.02092	0.02211	0.01610	0.02111	0.03689	0.01859	0.00654	0.01497	-
2020-05-21	-	0.00292	0.00614	0.00713	0.00909	0.01357	0.00434	0.00446	0.04116	0.00443	0.00033	0.00947	0.02479	0.01078

2020-05-22	-	0.01619	0.00116	0.00638	0.00083	0.00331	0.00771	0.00049	-	0.00566	0.01055	0.00689	0.00884	-	0.03770	0.00133
2020-05-26	-	0.00923	0.01846	0.01979	0.03463	0.03687	0.03489	0.04639	0.07535	0.00163	0.03911	0.01323	0.01828	-	0.03342	
2020-05-27	-	0.00073	0.01459	0.01247	0.02492	0.02281	0.01791	0.02885	0.04450	0.01064	0.01374	0.01502	0.00818	-	0.01277	
2020-05-28	-	0.00073	0.00581	0.00771	0.01165	0.00078	0.01849	0.00046	0.03180	0.01159	0.00997	0.01336	0.00740	-	0.01297	
2020-05-29	-	0.00330	0.00710	0.01159	0.00116	0.00194	0.00357	0.00322	0.00961	0.00543	0.00125	0.01471	0.02928	-	0.00845	
2020-06-01	-	0.01743	0.00449	0.02722	0.02099	0.02716	0.02593	0.02096	0.01134	0.03334	0.02875	0.03359	0.01739	-	0.01505	
2020-06-02	-	0.00896	0.00511	0.01166	0.02056	0.01238	0.02400	0.02361	0.05655	0.03423	0.02735	0.05609	0.02167	-	0.00443	
2020-06-03	-	0.03160	0.01203	0.02583	0.03633	0.03982	0.04270	0.03844	0.04338	0.02588	0.02083	0.03046	0.01409	-	0.00688	
2020-06-04	-	0.00035	0.00220	0.00658	0.00321	0.00036	0.00041	0.00552	0.00198	0.01175	0.02172	0.00011	0.01126	-	0.01131	
2020-06-05	-	0.04661	0.02244	0.02212	0.02632	0.01881	0.01811	0.02690	0.03785	0.05712	0.04468	0.04861	0.01699	-	0.01430	
2020-06-08	-	0.00165	0.01469	0.01531	0.01205	0.01362	0.01857	0.02053	0.05467	0.01903	0.02881	0.01655	0.00279	-	0.01461	
2020-06-09	-	0.01127	0.01407	0.02867	0.02180	0.02068	0.01976	0.01970	0.01331	0.01018	0.03994	0.03337	0.00124	-	0.00519	
2020-06-10	-	0.00995	0.00773	0.00073	0.00667	0.00461	0.00842	0.01377	0.03251	0.01457	0.01649	0.02577	0.01295	-	0.00052	
2020-06-11	-	0.06228	0.06113	0.06772	0.07038	0.06163	0.06787	0.06734	0.08159	0.06736	0.08648	0.08441	0.03857	-	0.04294	
2020-06-12	-	0.02016	0.00822	0.02118	0.02020	0.01465	0.02384	0.01649	0.03687	0.02121	0.04994	0.01217	0.01517	-	0.01779	
2020-06-15	-	0.01351	0.00392	0.00765	0.00406	0.00037	0.00587	0.00088	-	0.02871	0.02890	0.00912	0.01290	-	0.00503	0.01888

2020-06-16	0.00035	0.01873	0.01297	0.00954	0.01075	0.01288	0.00748	0.00611	0.01265	0.00670	0.01878	0.01253	0.01906	
2020-06-17	0.00105	-	-	0.00418	0.00182	0.00111	0.00538	0.00088	0.01454	0.00420	0.00091	0.02115	0.00837	0.00444
2020-06-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020-06-19	0.01201	0.00097	0.00309	0.00849	0.00856	0.00293	0.00490	0.01049	0.00118	0.02977	0.00118	0.00123	0.00481	-
2020-06-22	0.00351	0.00257	0.01305	0.01617	0.01668	0.01743	0.01506	0.00135	0.00274	0.00394	0.00354	0.01358	0.00676	-
2020-06-23	0.00906	-	0.00722	0.00618	0.01133	0.01145	0.00701	0.02891	0.00195	0.00907	0.00588	0.01430	0.00266	-
2020-06-24	0.01046	0.02670	0.03544	0.02606	0.02839	0.03223	0.03059	0.05004	0.00272	0.02621	0.02133	0.00931	0.02108	-
2020-06-25	-	0.01661	0.00822	0.01788	0.01988	0.01374	0.01211	0.01962	0.02113	0.01657	0.00339	0.01427	0.00363	0.01131
2020-06-26	0.00391	0.01418	0.01866	0.01728	0.02012	0.01927	0.02639	0.05048	0.02438	0.02904	0.03118	0.00714	0.00969	-
2020-06-29	0.00213	0.01614	0.01093	0.01619	0.01605	0.02259	0.02108	0.02625	0.01901	0.01197	0.00970	0.00030	0.00018	-
2020-06-30	0.00671	0.01492	-	0.00073	0.00407	0.00414	0.00311	0.00658	0.03202	0.00188	0.00484	0.00183	0.01015	-
2020-07-01	-	0.00706	0.00274	0.00696	0.00146	0.00074	0.00083	0.00045	0.03216	0.02624	0.00968	0.00725	0.00882	0.00200
2020-07-02	-	0.00568	0.00595	0.00768	0.01374	0.01756	0.02138	0.02635	0.00811	0.05344	0.01572	0.03663	0.03292	0.00655
2020-07-06	0.01098	0.01402	0.01028	0.01886	0.02224	0.01534	0.01847	0.03141	0.02961	0.01004	0.01839	0.07016	0.01279	-
2020-07-07	-	0.01330	0.01209	0.01834	0.01671	0.02224	0.00885	0.01977	0.02229	0.00356	0.02452	0.01145	0.01959	0.00899
2020-07-08	-	0.00174	0.00288	0.01265	0.00821	0.01405	0.01445	0.00907	0.03178	-	-	0.00917	0.04215	-
														0.00072

2020-07-09	-	0.00942	0.00673	0.01961	0.02011	0.00682	0.02787	0.02042	0.00752	0.04584	0.01573	0.00917	0.00240	0.00489		
2020-07-10	-	0.00664	0.00992	0.01158	0.01297	0.01039	0.01867	0.01827	0.01078	0.00753	0.00095	0.01313	0.00910	0.01299		
2020-07-13	-	0.01261	0.00863	0.01158	0.00215	0.00823	0.01051	0.00345	0.02599	0.02796	0.01726	0.00053	0.01150	0.00521		
2020-07-14	-	0.00702	0.01561	0.01656	0.01778	0.01922	0.02051	0.01332	0.02534	0.02074	0.01058	0.00171	0.00874	0.00790		
2020-07-15	-	0.01045	0.01381	0.01779	0.01643	0.01087	0.01462	0.01441	0.00841	0.02442	0.02302	0.00398	0.00151	0.01261		
2020-07-16	-	0.00243	0.00187	0.00791	0.00556	0.00279	0.00352	0.00084	0.00387	0.01450	0.00814	0.00340	0.03103	0.01029		
2020-07-17	-	0.00485	0.00592	0.00603	0.00418	0.00836	0.00973	0.00210	0.01382	0.01016	0.01138	0.00795	0.00550	0.00160		
2020-07-20	-	0.01645	0.00341	0.00075	0.00173	0.01172	0.00886	0.00587	0.02147	0.01986	0.00476	0.00228	0.02141	0.00071		
2020-07-21	-	0.01585	0.00155	0.00263	0.00346	0.00683	0.00192	-	0.02071	0.01948	0.02561	0.01924	0.00767	0.00053		
2020-07-22	-	0.00700	0.00800	-	0.00413	0.00207	0.00949	0.00649	0.00042	0.02448	0.01614	0.01500	-	0.01541	0.00267	
2020-07-23	-	0.01338	0.00677	0.00793	0.01074	0.01051	0.01534	0.01092	-	0.04020	0.01442	0.01100	0.00336	0.00278	0.00339	
2020-07-24	-	0.01072	0.01445	-	0.00380	0.00419	0.01027	0.00893	-	0.00084	0.00341	0.00110	0.00612	0.01011	0.01386	0.00107
2020-07-27	-	0.03116	0.01012	0.00872	0.00663	0.01537	0.00815	0.00042	0.03020	0.01528	0.02472	0.01457	0.00113	0.01969		
2020-07-28	-	0.01628	0.00840	0.00038	0.00733	0.01091	0.00893	-	0.00573	0.00719	0.00149	0.01006	0.00367	0.00617		
2020-07-29	-	0.02079	0.01366	0.01350	0.01736	0.01395	0.01241	0.00548	0.01172	-	0.00828	0.00060	-	0.01862	0.00053	
2020-07-30	-	0.01784	0.00278	-	0.01425	0.01491	0.02637	0.02616	0.02038	0.00269	-	0.01860	-	0.01244	0.00598	0.01513

2020-07-31	-0.00164	0.00647	-0.02061	0.02404	-0.01998	0.02200	-0.02916	-0.02579	0.00587	-0.01192	-0.01018	-0.00210	-0.02616
2020-08-03	-0.00493	0.00917	0.01796	0.01843	0.02551	0.01764	0.01404	-0.02080	0.00587	0.00123	0.00935	0.01980	0.02022
2020-08-04	-0.00425	0.00416	0.00595	0.00069	0.01459	0.00910	0.01136	0.01334	0.00587	0.00932	0.01456	0.01112	
2020-08-05	0.02793	0.00242	0.00752	0.00731	0.00413	0.00741	0.00043	0.01261	0.01352	0.02959	0.00469	0.00807	0.00071
2020-08-06	0.00384	-0.00060	0.00075	0.00208	0.00582	0.00624	-	0.00407	0.01091	0.00030	0.00820	0.00228	0.00071
2020-08-07	0.00833	0.00603	0.00677	0.00694	0.00308	0.00470	0.00954	0.02497	0.00940	0.00060	0.01647	0.03317	0.00036
2020-08-10	0.00387	0.00629	0.00564	0.00209	-	0.00549	0.00867	0.00256	0.01983	0.00719	0.01047	0.00610	0.00481
2020-08-11	0.02817	0.00900	0.00636	0.00831	0.00410	0.01011	0.01372	0.00579	0.01377	0.00891	0.00133	0.00125	0.00814
2020-08-12	0.01680	0.01139	0.02139	0.02250	0.02359	0.02483	0.01898	0.00550	0.00945	0.00266	0.00351	0.01452	0.02093
2020-08-13	0.01169	0.00299	0.01027	0.00405	0.00668	0.00834	0.00713	0.00227	0.00566	0.00676	-	0.00744	0.00121
2020-08-14	0.00194	0.00090	0.01187	0.01432	0.00572	0.00994	0.01100	0.00098	0.00455	0.01569	0.00023	0.00055	0.00017
2020-08-17	0.00962	0.00268	0.00743	0.00650	0.00907	0.00038	0.00213	0.02873	0.00419	0.00029	0.00844	0.02054	0.00414
2020-08-18	0.00255	0.00149	0.00037	0.00273	0.00200	0.00154	0.00299	0.02808	0.01252	0.00347	0.00938	0.00311	0.00344
2020-08-19	0.01217	0.00179	0.00706	0.00274	0.00368	0.00192	0.00386	0.02808	0.00113	0.00464	0.00987	0.01060	0.00533
2020-08-20	0.00226	0.00090	0.00187	0.00550	0.00335	0.00771	0.00603	0.00234	0.00151	0.00320	0.00114	0.00300	0.00363
2020-08-21	0.00811	0.00179	-0.01013	0.00762	0.01013	0.00855	-0.00694	0.00907	0.00567	0.00908	0.00456	0.01083	-

2020-08-24	-0.00196	0.00921	0.01572	0.01859	0.02049	0.01933	0.01682	0.00940	0.00793	0.00177	0.01089	0.01484	0.01105
2020-08-25	-0.00392	-0.00521	0.00510	0.00398	0.00192	0.00256	0.00832	0.01898	0.01027	0.00687	0.01554	0.00137	-
2020-08-26	0.00913	0.00236	0.00558	0.00845	0.01021	0.00383	0.00171	0.02891	0.01002	0.01500	0.01079	0.00365	0.00275
2020-08-27	-0.00619	0.00295	0.00857	0.01423	0.01386	0.01851	0.00945	0.00680	0.00039	0.01372	0.01022	0.00692	0.00930
2020-08-28	0.02515	0.00558	0.00783	0.00985	0.00596	0.01199	0.01796	0.04536	0.01002	0.02668	0.02356	0.01251	0.00535
2020-08-31	0.00286	0.00059	0.01046	0.01122	0.00563	0.01005	0.01925	0.03525	0.02839	0.03816	0.01334	0.02093	0.00138
2020-09-01	0.00095	0.00497	0.00791	0.00171	0.00066	0.00272	0.00476	0.04074	0.00435	0.02372	0.04580	0.02209	0.00275
2020-09-02	0.00159	0.01819	0.01502	0.02033	0.01972	0.01316	0.00390	0.00161	0.02427	0.00804	0.01232	0.00194	0.00992
2020-09-03	-0.01147	0.03346	0.02874	0.01896	0.02672	0.02413	0.00912	0.00032	0.00776	0.01629	0.01836	0.02838	0.01768
2020-09-04	-0.00321	0.00623	0.00345	0.00205	0.00201	0.00589	0.00955	0.00289	0.00311	0.00878	0.00974	0.00294	0.00553
2020-09-08	0.01424	0.02594	0.01192	0.01721	0.00976	0.01857	0.02184	0.02796	0.00156	0.02163	0.01268	0.02944	0.00830
2020-09-09	0.01167	0.01757	0.01992	0.02197	0.02868	0.02521	0.01665	0.02892	-0.00429	0.02284	0.01049	0.00932	0.00347
2020-09-10	-0.02183	0.01757	0.02457	0.01127	0.01024	0.00899	0.01180	0.03255	0.03540	0.00846	0.02221	0.01942	0.00052
2020-09-11	-0.00993	0.00092	0.01005	0.00957	0.00662	0.00704	0.00220	0.00431	0.01646	0.01865	0.00011	0.01134	0.01289
2020-09-14	0.00960	0.01575	0.00422	0.00577	0.00132	0.00195	0.00263	0.03205	0.00793	0.02530	0.00093	0.01460	0.00715
2020-09-15	-0.00794	0.00510	0.01143	0.00304	0.00165	0.01087	0.01131	-0.00484	0.00944	-0.00875	0.00138	0.01373	0.00457

2020-09-16	0.00166	-0.00135	0.00491	-0.00677	0.00396	-0.00970	0.00347	0.00194	-0.00746	0.00614	0.00008	-0.00348	0.00354
2020-09-17	0.00199	-0.00525	0.00378	0.00271	0.00593	-0.00352	0.00606	0.00804	-0.00435	0.01172	0.00684	-0.00646	0.00118
2020-09-18	-0.00033	0.01028	0.01218	0.01398	0.00626	0.01102	0.02137	0.04687	0.01637	0.01724	0.00113	0.00122	0.00438
2020-09-21	-0.02243	0.01285	0.03508	0.03600	0.04252	0.03135	0.02952	0.01522	-0.00808	0.01999	0.01944	0.00379	0.01496
2020-09-22	0.00540	0.00920	0.00317	0.00786	0.00138	-0.00245	0.01694	-0.00993	0.01719	0.01169	0.01103	0.00640	0.00308
2020-09-23	-0.03669	0.02594	0.00754	0.01445	0.01495	-0.01485	0.01442	0.03502	-0.04648	0.03304	0.02522	0.01057	0.00579
2020-09-24	0.01422	0.00469	0.00120	0.00218	0.00664	0.01033	0.00886	0.02638	-0.02688	0.02869	0.01111	0.00804	0.00391
2020-09-25	0.00309	0.01540	0.00597	0.00145	0.00593	-0.00909	0.00232	-0.00662	-0.00507	0.00155	0.01852	0.00404	0.00153
2020-09-28	0.00548	0.01556	0.01885	0.01766	0.02456	0.01850	0.02209	0.04138	-0.00969	0.01326	0.01259	0.01235	0.01386
2020-09-29	-0.00068	0.00212	0.00625	0.00285	0.00341	-0.00204	0.00502	0.01062	-0.01520	0.00184	0.01803	0.00124	0.00084
2020-09-30	0.00646	0.00544	0.00196	0.00464	0.00821	-0.00491	0.00459	0.01787	-0.02480	0.02335	0.00875	0.02415	0.00776
2020-10-01	-0.00646	0.00690	0.00196	0.00571	0.00650	-0.00450	0.00687	-0.00036	-0.00291	0.00782	0.00030	0.00913	0.00017
2020-10-02	0.00273	0.00420	0.00780	-0.00513	-0.00082	0.00455	-0.01860	0.00125	0.00482	0.00603	0.01156	0.00492	-
2020-10-05	0.01016	0.02140	0.01274	0.01834	0.02070	0.02023	0.01979	0.04394	0.00415	0.02142	0.00903	0.00539	0.00813
2020-10-06	-0.00812	0.01005	0.01507	0.00948	0.01080	-0.01168	0.00312	-0.01455	-0.02431	0.01184	0.00181	0.00870	0.00220
2020-10-07	-0.00102	0.01795	0.00660	0.00913	0.00912	-0.01448	0.01067	-0.00215	-0.00127	0.02121	0.00783	0.01113	0.00523

2020-10-08	0.01048	0.00871	0.01077	0.00731	0.01037	0.00558	0.01274	0.02861	0.00762	0.03015	0.01571	0.00631	0.00034	
2020-10-09	0.00904	0.00490	0.00914	0.00932	0.00531	0.00238	0.00218	0.00832	0.01340	0.01321	0.00288	0.00535	-	
2020-10-12	0.00432	0.01372	0.00341	0.00617	0.00693	0.00671	0.00044	0.01235	0.00539	0.00728	0.01039	0.01986	0.00269	
2020-10-13	0.00298	0.00455	0.01792	0.01549	0.01725	0.01587	0.01989	0.00925	0.01543	0.01331	0.02536	0.00064	0.00319	
2020-10-14	-	0.01031	0.00429	0.00463	0.00382	0.00033	0.00160	0.00579	0.00309	0.00759	-	0.00121	0.00975	0.00151
2020-10-15	-	0.00301	0.00315	0.01755	0.00734	0.02063	0.02343	0.01161	0.00758	0.00507	0.00228	0.00181	0.00854	0.00844
2020-10-16	0.00768	-	0.00086	0.00979	0.00873	0.01155	0.01178	0.00269	0.00903	0.00630	0.00256	0.00461	0.01124	0.00204
2020-10-19	-	0.01576	0.01323	0.00979	0.00244	0.00712	0.00486	0.00224	0.00765	0.00626	0.01284	0.00522	0.00606	0.00119
2020-10-20	0.00539	0.00462	0.00588	0.01075	0.00306	0.01850	0.02219	0.01716	0.01240	0.02384	0.01461	0.01195	0.00017	
2020-10-21	0.01865	-	0.00289	0.00470	0.01424	0.01228	0.01890	0.01370	0.00204	0.03075	0.00949	0.01049	0.00242	0.00777
2020-10-22	0.00066	0.00447	0.00235	0.00280	-	0.00162	0.00223	0.01758	0.01738	0.00609	0.00909	0.00306	0.00286	
2020-10-23	0.00690	0.00101	0.01014	0.01352	0.00923	0.01209	0.01505	0.01180	0.00157	0.00743	0.00389	0.00396	0.00051	
2020-10-26	-	0.01021	0.01857	0.01525	0.02510	0.04594	0.01900	0.01550	0.00237	0.02582	0.01910	0.01713	0.00883	0.00966
2020-10-27	0.01152	-	0.00617	0.00990	0.02321	0.01435	0.02020	0.02439	0.02883	0.00646	0.00983	0.00091	0.01618	0.00357
2020-10-28	-	0.03868	0.03295	0.03936	0.04281	0.04810	0.04777	0.03632	0.05548	0.02668	0.03270	0.03180	0.01992	0.01367
2020-10-29	-	0.00306	0.00789	0.00988	0.00527	0.00378	0.00131	0.00618	0.01280	-	-	-	0.01966	0.00754

2020-10-30	-0.00068	0.00789	-0.00246	0.00038	0.00758	-0.00219	0.00238	-0.02427	0.00542	0.01296	0.01174	-0.01747	-0.00582
2020-11-02	0.01356	0.01631	0.01144	0.01821	0.01361	0.02211	0.02119	0.01148	0.01619	0.00205	0.00917	0.01634	0.01042
2020-11-03	0.01603	0.01929	0.02764	0.03082	0.03214	0.03828	0.03165	0.01280	0.00082	0.01485	0.01274	0.01274	0.02085
2020-11-04	-0.02042	0.02036	0.00905	0.01524	0.01336	0.01353	0.00589	0.03112	0.00124	0.00978	0.00221	0.04316	0.00167
2020-11-05	0.02933	0.01741	0.01900	0.02534	0.02585	0.03166	0.03349	0.05115	0.04399	0.04258	0.02442	0.01123	0.02437
2020-11-06	0.01305	-0.00502	0.00269	0.00137	0.00105	0.00668	-	0.02903	0.03148	0.00819	0.00702	0.00545	0.00081
2020-11-09	0.03504	0.00446	0.04605	0.05495	0.02755	0.03957	0.07037	0.02123	0.02307	0.03816	0.05906	0.00922	0.02900
2020-11-10	-0.06665	0.00085	0.02885	0.02749	0.00980	0.01458	0.04365	0.01013	0.02364	0.01816	0.01123	0.03359	0.00380
2020-11-11	0.01428	0.00733	0.01166	0.00158	0.00704	0.00297	0.00469	0.00094	0.00109	0.00487	0.00091	0.00428	0.00601
2020-11-12	-0.01295	0.01101	0.02059	0.01810	0.01548	0.01454	0.01493	0.03296	0.03677	0.02304	0.01747	0.00075	0.01556
2020-11-13	0.02181	0.01868	0.01531	0.01684	0.01515	0.02448	0.02618	0.01869	0.02060	0.02534	0.00895	0.00899	0.01414
2020-11-16	0.00196	0.01290	0.01403	0.01532	0.00467	0.01057	0.01607	0.02460	0.02091	0.03364	0.01929	0.00248	0.01410
2020-11-17	0.02608	-0.00579	0.00629	0.00279	-	0.01082	0.00152	0.02735	0.00692	0.00542	0.00107	0.00422	0.00390
2020-11-18	0.00949	0.01113	0.00598	0.00590	0.00300	0.00251	0.00725	0.01897	0.01018	0.00270	0.00640	0.00562	0.00674
2020-11-19	-0.00886	0.00488	0.00843	0.00837	0.00532	0.01180	0.01255	0.01654	0.01128	0.00294	0.00075	0.00512	0.00658
2020-11-20	0.01106	-0.00600	0.00070	0.00216	0.00166	-0.00142	0.00341	0.02274	0.00110	0.00539	0.00666	0.01508	0.01118

2020-11-23	0.00720	0.00781	0.00175	0.00031	0.00133	0.00036	0.00454	0.00558	0.00873	0.00293	-	-	0.00455	0.00062
2020-11-24	0.02677	0.01078	0.01903	0.01687	0.01286	0.02737	0.02499	0.03314	0.02186	0.01906	0.02603	0.01128	0.01501	
2020-11-25	0.00515	-	-					-		-		-	0.00992	0.00717
2020-11-27	0.01350	0.00303	0.00104	0.00727	0.00489	0.00206	0.00515	0.00501	0.00681	0.00386	0.00645	0.01454	0.01429	
2020-11-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020-12-01	0.00448	0.00469	0.02378	0.02011	0.00555	0.02010	0.01851	0.02319	0.03400	0.02025	0.02115	0.03230	0.02818	
2020-12-02	0.01751	0.00963	0.02895	0.02672	0.01976	0.01770	0.02253	0.04815	0.04757	0.03583	0.03973	0.00786	0.02029	
2020-12-03	0.00294	0.00357	0.00309	0.00150	0.00289	0.00276	0.01198	0.00029	0.00747	0.01346	0.02071	0.00599	0.00168	
2020-12-04	0.00818	0.00220	0.01226	0.00150	0.00161	0.00035	0.00289	0.01677	0.00712	0.00888	0.01138	0.00921	0.00244	
2020-12-07	-	-	-	-	-	-	-	-	-	0.02522	0.00232	0.03048	0.00050	0.00455
2020-12-08	0.00436	0.00136	0.00976	0.00955	0.00225	0.00686	0.00964	0.00055	0.01886	0.01331	0.01514	0.00509	0.01479	
2020-12-09	0.00117	0.00488	0.00439	0.00270	0.00482	0.00275	0.00036	0.00221	0.01052	0.00493	-	0.00311	0.00230	
2020-12-10	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020-12-11	0.00292	0.00732	0.00370	0.00720	0.00224	0.00103	0.00252	0.01669	0.00035	0.01604	0.01861	0.01677	0.00703	
2020-12-14	0.00495	0.00273	0.00336	0.00241	0.00256	0.00480	0.00216	0.04765	0.00938	0.01370	0.00885	0.01391	0.00167	
2020-12-15	0.01759	0.00273	0.01117	0.00452	0.01062	0.00755	0.00906	0.00671	0.00938	0.00801	0.00931	0.00938	0.00213	
2020-12-15	0.01250	0.00055	0.01371	0.00484	0.00617	0.00935	0.00914	0.02481	0.01088	0.01093	0.00414	0.01353	0.00061	
2020-12-15	0.01781	0.01359	0.01439	0.01176	0.01711	0.01485	0.00513	0.02157	0.00387	0.01377	0.02359	0.00432	0.00711	

2020-12-16	0.01489	0.00243	0.00847	-0.00030	0.01493	0.00171	-0.00329	0.01315	0.00735	0.00775	-0.00180	0.00808	-0.00015
2020-12-17	0.01009	0.00671	0.00270	0.00419	0.01254	0.00818	0.00621	0.01008	0.04033	0.01716	0.01957	0.01101	0.00586
2020-12-18	-0.00086	0.00241	0.01151	0.00539	0.00218	0.00647	0.01321	0.00503	0.00436	0.02091	0.00176	0.00062	0.00285
2020-12-21	-0.01184	0.00511	0.01716	0.01482	0.02050	0.01479	0.02014	0.02907	0.02280	0.01681	0.04405	0.00474	0.01087
2020-12-22	-0.01287	0.00269	0.00208	-0.00091	0.00319	0.00622	-0.00038	-0.00055	0.01164	0.02172	0.00184	0.00778	0.00046
2020-12-23	0.01374	0.00255	0.01890	0.01423	0.01522	0.01504	0.02200	0.00164	0.00509	0.02957	0.00184	0.00578	0.00364
2020-12-24	0.00174	0.00254	0.00204	-0.00060	0.00220	-	0.00405	0.00815	0.00641	0.00402	0.00500	0.02770	0.00364
2020-12-28	0.00116	0.00214	0.00136	0.00928	0.01124	0.00710	0.00695	-0.00407	0.00904	0.00330	0.00779	0.00284	0.01013
2020-12-29	-0.00145	0.00492	0.00982	0.00446	-0.00031	0.00034	0.00328	0.01135	0.00033	0.02485	0.01620	0.02248	0.01241
2020-12-30	0.01178	0.00385	-0.00202	0.00030	0.00062	0.00269	0.00218	0.00215	0.01291	-0.00184	0.01682	0.02199	0.00045
2020-12-31	-0.00918	0.00612	0.01120	0.01344	0.01251	0.01115	0.01505	-0.00216	0.00627	0.01202	-0.00264	0.00062	0.00311

PLANTEAMIENTO TEÓRICO

1.1. Problema

Estrategia de minimización de riesgo para el portafolio del fondo tipo 3 de las AFPs peruanas utilizando Conditional Value at Risk, periodo 2015 – 2021, Perú.

1.2. Descripción

Actualmente la Superintendencia de Banca, Seguros y AFP, describe el fondo de pensiones tipo 3 o también conocido como fondo de apreciación de capital. Este fondo tiene como objetivo buscar rendimiento a largo plazo el cual este por encima del promedio, debido a esto se tiende a estar expuesto a una mayor volatilidad o riesgo (SBS, 2021). Además para (AFP Habitat, 2021) el fondo tipo 3 esta compuesto en un 80% de renta variable lo cual lo hace un fondo más volátil.

Para (AFP Integra, 2021a), el fondo del tipo 3 invierte primordialmente en instrumentos de renta variable, con el objetivo de buscar una mejor rendimiento respecto a los otros tipos fondos de inversión.

Además, se seleccionó diversos instrumentos financieros, basados en renta variable para representar al fondo tipo 3, tales como: iShares MSCI Peru ETF, iShares MSCI USA Quality Factor ETF, iShares MSCI United Kingdom ETF, iShares MSCI France ETF, iShares MSCI Germany ETF, iShares MSCI Italy ETF, iShares MSCI Spain ETF, iShares MSCI Brazil ETF, iShares MSCI Chile ETF, iShares MSCI Mexico ETF, iShares MSCI Colombia ETF, iShares MSCI China ETF, iShares MSCI Japan ETF. Debido a que el fondo no cuenta con una restricción de inversión, este fondo puede invertir en renta variable tanto localmente como internacionalmente (AFP Integra, 2021b).

Por otra parte, las instituciones financieras requieren medir sus niveles de reservas para cubrir sus riesgos de solvencia, debido a ello tanto instituciones como los investigadores realizaron diversos estudios para alcanzar medidas que gestionen eficientemente los riesgos a los

que están sometidos, JP Morgan implementó el “RiskMetrics” en el año 1995 lo cual abrió las puertas a la gestión de riesgos moderna, haciendo conocido al Value at Risk (VaR) y el Conditional Value at Risk (CVaR), esto implica que se pueda optimizar las carteras de inversión con el objetivo de minimizar el riesgo de mercado, es ahí donde el CVaR es utilizada como una métrica de riesgo (Martín, 2005). Además, el Conditional Value at Risk (CVaR) demostró tener considerables ventajas en la optimización de carteras (Martín, 2005).

En los últimos años el Conditional Value at Risk (CVaR) se ha ganado de popularidad debido a que es una métrica coherente de riesgo, esto tuvo una implicancia en las normativas de la Superintendencia de Banca y Seguro (SBS), llegando a modificar el anexo 9 del capítulo V, “Resultados de Modelos de Medición del Riesgo de Mercado” (El Peruano, 2018).

1.2.1. Campo, área y línea de investigación

- **Campo:** Ciencias Económico Administrativos
- **Área:** Ingeniería Comercial
- **Línea de investigación:** Finanzas

1.2.2. Tipo de problema

El presente análisis es de carácter cuantitativo relacional puesto que se pretende por medio de información secundaria recopilar y analizar información, utilizando herramientas matemáticas y estadísticas para plantear una estrategia de minimización de riesgo para el portafolio del fondo tipo 3 de las AFPs peruanas utilizando Conditional Value at Risk, y de tal manera lograr que esta investigación puede ser utilizada como base para investigaciones posteriores relacionada.

1.2.3. Variables

1. Análisis de variables

- **Variables Independientes**

Portafolio del fondo tipo 3 de las AFPs peruanas.

- **Variable Dependiente**

Estrategia de minimización de riesgo del portafolio.

2. Operacionalización de variables

Tabla 1: Operacionalización de variables

Variables	Indicadores
Variables Independientes: Portafolio del fondo tipo 3 de las AFPs peruanas.	<ul style="list-style-type: none">- Composición optima porcentual del portafolio del año 1. (%)- Composición optima porcentual del portafolio del año 2. (%)- Composición optima porcentual del portafolio del año 3. (%)- Composición optima porcentual del portafolio del año 4. (%)
Variables Dependiente: Estrategia de minimización de riesgo.	-Rendimiento logarítmico promedio de 5 años de la composición del portafolio. (%)

	<p>-Riesgos CVaR mínimos anuales del portafolio. (%)</p> <p>-Riesgo CVaR promedio de 5 años de la composición de portafolios. (%)</p>
--	---



1. Matriz de consistencia

Tabla 2: Matriz de consistencia

TÍTULO:	Estrategia de minimización de riesgo para el portafolio del fondo tipo 3 de las AFPs peruanas utilizando Conditional Value at Risk, periodo 2015 – 2021, Perú.							
Problema principal	Formulación del problema		Objetivos		Hipótesis	Variables	Indicadores	Metodología de la Investigación
	Interrogante Principal	Interrogantes Específicas	Objetivo Principal	Objetivos Específicos	Hipótesis Principal			
Estrategia de minimización de riesgo para el portafolio del fondo tipo 3 de las AFPs peruanas utilizando Conditional Value at Risk, periodo 2015 – 2021 Perú	¿Cuál será la estrategia de minimización de riesgo utilizando el Conditional Value at Risk, para el fondo tipo 3 de las AFPs peruanas?	¿Cuál es el rendimiento logarítmico promedio de 5 años de la composición de portafolio?	Desarrollar una estrategia de minimización de riesgo utilizando el Conditional Value at Risk (CVaR) en los rebalanceos anuales del portafolio tipo 3 ?	Calcular el rendimiento logarítmico promedio de 5 años de la composición del portafolio	Los fonflos del tipo 3 de las AFPs peruanas pueden optimizarse a través de la estrategia de minimización de riesgo considerando el modelo Conditional Value at Risk	Variables Independientes: Portafolio del fondo tipo 3 de las AFPs peruanas	<ul style="list-style-type: none"> - Composición óptima porcentual del portafolio del año 1 (%) - Composición óptima porcentual del portafolio del año 2 (%) - Composición óptima porcentual del portafolio del año 3 (%) - Composición óptima porcentual del portafolio del año 4 (%) 	<p>Tipo de investigación: Cuantitativa - Relacional</p> <p>Método de investigación: Recopilación de datos de la plataforma financiera Refinitiv Eikon.</p> <p>Técnicas</p> <p>Investigación secundaria, documental</p> <p>Instrumentos</p> <p>223</p>
		¿Cómo se comporta el Conditional Value at Risk (CVaR) en los rebalanceos anuales del portafolio tipo 3 ?		Analizar el Conditional Value at Risk (CVaR) en los rebalanceos anuales del portafolio tipo 3.				

		<p>¿Cuál es la composición o pesos del portafolio tipo 3 en el rebalanceo anual</p>		<p>Analizar la composición o pesos del portafolio tipo 3 en el rebalanceo anual</p>					Tablas
		<p>¿Cuál es la estrategia que optimice los componentes de rendimiento y riesgo en el fondo tipo 3 de las AFPs?</p>		<p>Analizar el rendimiento promedio anual de los 5 años del portafolio del fondo tipo 3 de las AFPs peruanas.</p>		<p>Variable dependiente: Estrategia de minimización de riesgo del portafolio</p>		<ul style="list-style-type: none"> - Rendimiento logarítmico promedio de 5 años de la composición del portafolio (%) - Riesgos CVaR mínimos anuales del portafolio (%) - Riesgos Cvar promedio de 5 años de la composición de portafolios (%) 	Graficos
				<p>Formular una estrategia de composición de portafolio que genere un mayor rendimiento y riesgo en el fondo tipo 3 de las AFPs</p>					

1.2.4. Interrogantes básicas

1.2.4.1. Interrogante General

- ¿Cuál será la estrategia de minimización de riesgo utilizando el Conditional Value at Risk, para el fondo tipo 3 de las AFPs peruanas?

1.2.4.2. Interrogantes específicas

- ¿Cuál es el rendimiento logarítmico promedio de 5 años de la composición del portafolio?
- ¿Cómo se comporta el Conditional Value at Risk (CVaR) en los rebalanceos anuales del portafolio tipo 3?
- ¿Cuál es la composición o pesos del portafolio tipo 3 en el rebalanceo anual?
- ¿Cuál es la estrategia que optimice los componentes de rendimiento y riesgo en el fondo tipo 3 de las AFPs?

1.3. Justificación

Justificación Práctica

El objetivo del presente trabajo de investigación es la aplicación del Conditional Value at Risk para que los resultados encontrados generen una estrategia de minimización de riesgos, que permita calcular la composición del portafolio de inversión analizando el rendimiento promedio anual de los 5 años del portafolio del fondo tipo 3 de las AFPs peruanas. Esto demostraría cual es el desempeño bajo medidas de riesgos donde se maximizaría el rendimiento de estas.

Justificación Académica

La investigación procura analizar la estrategia de minimización de riesgo del fondo tipo 3 de las AFPs peruanas, utilizando al Conditional Value at Risk (CVaR) como una métrica de riesgo, la cual puede ser utilizada para optimizar portafolios de inversión, debido a que esta

métrica es matemáticamente correcta, además este cumple con los principios de Monotonicidad, Homogeneidad Positiva, Subaditividad, Invarianza Traslacional.

Dichos principios permiten demostrar mejores cualidades que otras métricas de riesgos ya que son coherentes y han sido probadas en el ámbito financiero.

Justificación Profesional

La investigación tiene gran importancia ya que se podrá profundizar el conocimiento de dicha métrica de riesgo, así como evaluar el desempeño del portafolio de las AFP peruanas, debido a que la Superintendencia de Banca y Seguros exige que la métrica de riesgo utilizada por las instituciones financieras sea el Conditional Value at Risk, con lo cual se busca administrar correctamente el dinero de los asociados.

Justificación Social

Esta investigación se realiza porque existe la necesidad de rebalancear y optimizar los fondos tipo 3 , lo cual implica que cambiaría la estructura de pesos inicial ,analizando el comportamiento de dicha métrica de riesgo, donde los afiliados de las AFPs aportan un porcentaje de su sueldo a un fondo individual el cual paga comisiones , eso implica que una buena gestión de riesgos podría incrementar la rentabilidad de los fondos así como la estabilidad de la misma y generar confianza en el mercado.

1.4. Objetivos

1.4.1. Objetivo General

- Desarrollar una estrategia de minimización de riesgo utilizando el Conditional Value at Risk para el portafolio del fondo tipo 3 de las AFPs peruanas.

1.4.2. Objetivos específicos

- Calcular el rendimiento logarítmico promedio de 5 años de la composición del portafolio.
- Analizar el Conditional Value at Risk (CVaR) en los rebalanceos anuales del portafolio tipo 3.
- Analizar la composición o pesos del portafolio tipo 3 en el rebalanceo anual.
- Analizar el rendimiento promedio anual de los 5 años del portafolio del fondo tipo 3 de las AFPs peruanas.
- Formular una estrategia de composición de portafolio que genere un mayor rendimiento y un menor riesgo.

1.5. Marco Teórico

Existen diferentes métricas de riesgos, las cuales son ampliamente utilizadas en diferentes metodologías, pero en los años más recientes el Conditional Value at Risk (CVaR) ha ganado mucha relevancia y popularidad dentro del mundo financiero debido a que es una medida de riesgo coherente a diferencia de la desviación estándar. Siendo una métrica de riesgo puede ser utilizada para optimizar portafolios minimizando el riesgo.

El Conditional Value at Risk (CVaR) es una metrica de riesgo que complementa al Value at Risk (VaR), debido a que el VaR cuenta con limitaciones.

Estas limitaciones son afirmadas por (Arbeláez & Ceballos, 2005), debido a que el Var

cuenta con problemas de incongruencia desde un punto de vista matemático.

Por otra parte (Tapiero, 2004) afirma que para que las medidas de riesgo sean coherentes deben satisfacer las siguientes propiedades:

- **Monotonía:** Para (Arbeláez & Ceballos, 2005) “ Si $F_x(x) \geq F_y(x)$ para todo x , escrito $X \leq_{st} Y$, entonces $R[X] \leq R[Y]$ esto significa que a mayor rentabilidad debe corresponder un mayor riesgo”. Al explicar dicha propiedad es entendible que a medida que se busque obtener una mayor rentabilidad se debe asumir con un riesgo mayor.
- **Homogeneidad positiva:** Según (Arbeláez & Ceballos, 2005) “Si c es una constante positiva y $X \in \mathcal{X}$ entonces $R[cX] = cR[X]$. Esto significa que, si se aumenta la posición en un portafolio o en alguno de sus activos componentes, el riesgo debe incrementarse proporcionalmente, el riesgo escala con el tamaño de la posición”. Entendiendo este concepto se tomar en consideración que a medida que haya variaciones en la posición del portafolio inicial este debe incrementar en el riesgo de una forma proporcional.
- **Subaditividad:** Según (Arbeláez & Ceballos, 2005) la subaditividad se expresa en “si $X, Y, X + Y \in \mathcal{X}$, entonces $R[X+Y] \leq R[X] + R[Y]$. Es decir, el riesgo global de un portafolio formado por dos o más activos es menor o igual que la suma de los riesgos individuales. Una fusión no crea riesgo extra. Esta característica es la base de la diversificación ya que, según la propiedad, la diversificación no debe aumentar el riesgo”. La diversificación no aumenta el riesgo, esto lo explica la

propiedad de subaditividad con lo cual se cuenta como que el riesgo no debe aumentar si se tiene dos o más activos.

- **Invarianza traslacional:** Para (Arbeláez & Ceballos, 2005) la invarianza traslacional es “Si c es una constante y $X \in x$ entonces $R[x+c] = R[x]-c$. Esto significa que, si se invierte una cantidad adicional en el portafolio y se invierte prudentemente, entonces su riesgo se debe reducir en esa cantidad proporcional”. Con esta afirmación es puede determinar que es factible que el riesgo pueda reducir de una forma proporcional a la cantidad adicional en el portafolio.

Conditional Value at Risk (CVaR)

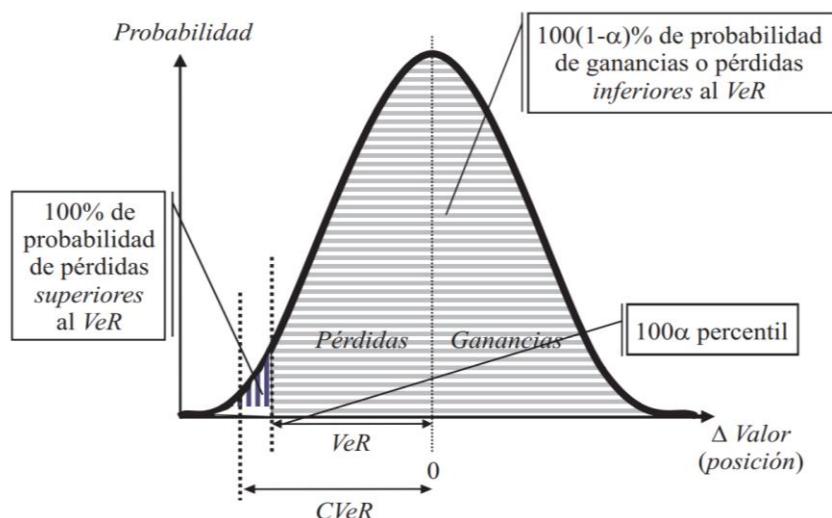
Siendo el CVaR una medida complementaria al VaR, esto lo afirma (Arbeláez & Ceballos, 2005) con la cual se puede cuantificar el riesgo de mercado. El CVaR es una medida coherente del riesgo tanto desde la óptica académica de la teoría de la medida, como también desde la óptica práctica y operativa debido a que cumple con las propiedades anteriormente expuestas como también cumple con la convexidad y uniextremo, esto hace que sea favorable aplicar algoritmos de optimización y control.

Otra idea sobre el Conditional Value at Risk (CVaR) es que proporciona una estimación de la pérdida promediando los Value at Risk (VaR) para aumentar los niveles de confianza (FRM, 2019). Esto hace que el CVaR sea una medida de riesgo más entendible y coherente y matemáticamente realizable.

Según (Feria & Oliver, 2007) el CVaR se puede explicar de una forma muy sencilla cual podría ser la pérdida máxima en la que se podría incurrir en un tiempo determinado dado un

cierto nivel de confianza, lo que podría explicarse en una perdida potencial, el cual espera superar el umbral indicado por el VaR.

Figura 1: Distribución de Pérdidas y Ganancias, Value at Risk (VaR) y Conditional Value at Risk (CVaR).



Fuente: Feria & Oliver (2007)

Además, el Conditional Value at Risk (CVaR) puede ser aplicado a distribuciones de perdidas no simétricas, debido a que considera los riesgos más allá del Value at Risk (VaR) y es convexa.

Para (Rockafellar & Uryasev, 2002), define el Conditional Value at Risk (CVaR) como una función especial a la cual se le aplica una coherente regla de minimización, bajo este concepto los autores plantean, la función 1.

$$F_\alpha(x, \zeta) = \zeta + \frac{1}{1-\alpha} E\{[f(x, y) - \zeta]^+\}. \quad (1)$$

Considerando que esta es la función del CVaR. Para Sarykalin et al. (2008) plantean la ecuación 2 de optimización de la función.

$$CVaR_\alpha(x) = \min_\zeta F_\alpha(x, \zeta). \quad (2)$$

Se considera que la función 1 es convexa, de esta manera se puede minimizar $F_\alpha(x, \zeta)$ sobre $(x, \zeta) \in X \times R$, esto tiene como resultado una minimización del $CVaR_\alpha(x)$, esto puede ver en la ecuación 3(Sarykalin et al., 2008).

$$\min_{x \in X} CVaR(x) = \min_{(x, \zeta) \in X \times R} F_\alpha(x, \zeta). \quad (3)$$

Adicionalmente, si (x^*, ζ^*) se minimiza sobre $X \times R$ entonces no solo lo hace x^* también se minimiza $CVaR_\alpha(x)$ sobre X esto se aprecia en la ecuación (4).

$$CVaR_\alpha(x^*) = F_\alpha(x^*, \zeta^*). \quad (4)$$

El Conditional Value at Risk (CVaR) puede ser utilizado para dar forma al riesgo, y esto puede ser aplicado en un modelo de optimización. Esto debe ser especificado en distintos niveles de confianza (Rockafellar & Uryasev, 2002).

$$\begin{aligned} & \min_{x \in X} g(x) \\ & s.t. CVaR_\alpha(x) \leq w_i, \quad i = 1, \dots \end{aligned} \quad (5)$$

Esto es equivalente a:

$$\begin{aligned} & \min_{x, \zeta_1, \dots, \zeta_l \in X \times R \times \dots \times R} g(x) \\ & s.t. F_\alpha(x, \zeta_i) \leq w_i, \quad i = 1, \dots, l. \end{aligned} \quad (6)$$

Cuando X y g son convexos y $f(x, y)$ es convexo en x, es un problema de optimización en las ecuaciones 4 y 5, y por lo tanto son de programación convexa. Además, cuando Y es una probabilidad discreta cuenta con un espacio de probabilidad discreta con elementos $y_k, k = 1, \dots, N$ teniendo las probabilidades $p_k, k = 1, \dots, N$ (Sarykalin et al., 2008). Se tiene la función (7).

$$F_\alpha(x, \zeta_i) = \zeta_i + \frac{1}{1-\alpha} \sum_{k=1}^N p_k [f(x, y_k) - \zeta_i]^+. \quad (7)$$

La restricción de la función $F_\alpha(x, \zeta) \leq w$, esto puede ser reemplazado por un sistema de inecuación adicionando la variable n_k , esto se puede ver en la inecuación (8).

$$n_k \geq 0, \quad f(x, y_k) - \zeta - n_k \leq 0, \quad k = 1, \dots, N,$$

$$\zeta + \frac{1}{1-\alpha} \sum_{k=1}^N P_k n_k \leq w \quad (8)$$

El problema de minimización en la ecuación 6 puede ser convertido en una minimización de $g(x)$ con una restricción de $F_\alpha(x, \zeta_i) \leq w_i$, esto es remplazado en la inecuación (8) (Sarykalin et al., 2008).

1.5.1. Diseño de la investigación

El presente análisis es de carácter secundario o documental debido a que se recopilaron datos de la plataforma financiera Refinitiv Eikon la cual proporcionara los precios de los distintos instrumentos financieros, como también libros de riesgos financieros, artículos y revistas indexadas en el ámbito de la optimización de portafolios utilizando como métrica de riesgo el CVaR.

1.5.2. Antecedentes investigativos

Antecedentes Locales y Nacionales

Desde que el Conditional Value at Risk (CVaR) se hizo conocido en el mundo financiero, debido a que es una medida coherente de riesgo y matemáticamente aceptada, esto hizo que no solo sea un modelo teórico si no también un modelo práctico y utilizable en los distintos campos financieros, debido a que es una medida de riesgo aceptada por los expertos en riesgos financieros.

Según (Navarrete, 2012), el Conditional Value at Risk es una medida de riesgo coherente, debido a que es continuo respecto al nivel selección, esto implica que se pueda realizar optimizaciones en portafolios de inversión empleando el Conditional Value at Risk como una métrica de riesgo.

Por otra parte, (Solís, 2019) utiliza distintas métricas de riesgo para analizar la volatilidad como el Value at Risk (VaR) y el Conditional Value at Risk (CVaR), el autor tambien desarrolla una comparación entre las métricas de riesgos, para la optimización de portafolio.

Además, (Medina Arauco & Mendoza Vasquez, 2019) demuestra que pude existir una mejor relación entre el riesgo y rentabilidad, empleando la metodología del CVaR para evaluar el riesgo, los autores utilizaran el método de simulación histórica con el cual buscan optimizar el riesgo atraves de la metrica de riesgo del Conditional Value at Risk.

Antecedente Internacionales

Debido a que esta es una medida de riesgo muy popular impulsaron a muchos trabajos de investigación, claramente existe distintas medidas de riesgo aceptadas al momento de optimizar portafolios, pero el CVaR ha ganado una popularidad creciente en los años recientes. Debido a que está empezando a remplazar el clásico Value at Risk (VaR), considerando que existen muchas razones para esto (Ciliberti et al., 2007).

Además, la optimización de portafolios intenta elegir la composición del portafolio de tal manera que se minimice el riesgo en un determinado nivel de rendimiento esperado (o maximizar el rendimiento a un nivel de riesgo dado) (Caccioli et al., 2018).

Por otra parte, (Nakagawa et al., 2020) plantea el problema de encontrar un portafolio óptimo para los inversores, lo cual se denomina como problema de optimización de portafolio, debido a que se utiliza principalmente el retorno promedio o expected return, la media varianza, aunque la media varianza sea una medida de riesgo más fundamental para ser minimizado, debido a que este cuenta con muchos inconvenientes, sin embargo el Conditional Value at Risk (CVaR), es una medida de riesgo que aborda algunas de las deficiencias conocidas relacionadas con la varianza, el CVaR gano popularidad debido a sus eficiencias computacionales.

Para (Krokhmal et al., 2002) el Conditional Value at Risk es el promedio ponderado del VaR y sus pérdidas, siendo el tema de central de enfoque la técnica de optimización para calcular el VaR y optimizar el CVaR.

Siendo, el objetivo primordial de un inversor es distribuir de forma optimas sus inversiones entre diferentes activos, se puede optimizar estos portafolios con métricas de riesgo como el Conditional Value at Risk, esto puede ser hallado aplicando un algoritmo el cual maximice el valor esperado de la cartera bajo restricciones en la cartera como es el Conditional Value at Risk (Gilli & Kellezi, 2002).

Como plantea (Acerbi et al., 2018) el Conditional Value at Risk surge como una solución en algunos casos donde el Value at Risk no es capaza de distinguir carteras que llevan diferentes niveles de riesgo, la diferencia del Value at Risk y el Conditional Value at Risk está en que la variable es en general subaditiva y por lo tanto es una medida coherente de riesgo.

Desde que el Value at Risk fue adoptada como una métrica de riesgo la cual es empleada prácticamente por todos los reguladores y bancos, pero esta métrica cuenta con algunas falencias lo cual hace que el Conditional Value at Risk sea una métrica más coherente y aceptada, esto hace que esta métrica puede ser empleada en la optimización de portafolios de inversión (Acerbi & Tasche, 2001).

Bibliografía Básica

Acerbi, C., Nordio, C., & Sirtori, C. (2018). Expected Shortfall as a Tool for Financial Risk

Management. *arXiv:cond-mat/0102304*. <http://arxiv.org/abs/cond-mat/0102304>

Arias, E. R. (3 de Julio de 2020). *Economipedia*. Obtenido de

<https://economipedia.com/definiciones/diversificacion.html>

Acerbi, C., & Tasche, D. (2001). Expected Shortfall: A Natural Coherent Alternative to Value at

Risk. *Economic Notes*, 31(2), 379-388. <https://doi.org/10.1111/1468-0300.00091>

AFP Habitat. (2021). Multifondos. *Habitat Perú*. <https://www.afphabitat.com.pe/multifondos/>

AFP Integra. (2021a). *AFP Integra*. AFP Integra. <https://www.afpintegra.pe/cambio-de-fondo>

AFP Integra. (2021b). *Prospecto Informativo Fondo Tipo 3*. AFP Integra.

<https://cdn01.sura.net.pe/integra/webapps/cercania/agenda/downloadable/prospectos/ProspectoFondo3.pdf>

Arbeláez, L. C. F., & Ceballos, L. E. F. (2005). *El valor en riesgo condicional CVaR como medida coherente de riesgo*. 13.

Bolsa de valores de Madrid. (2022). *Bolsa de valores de Madrid*. Obtenido de

<https://www.bolsamadrid.es/esp/ETFs/InformacionGeneral/IntroduccionalosETFs.aspx>

Caccioli, F., Kondor, I., & Papp, G. (2018). Portfolio optimization under Expected Shortfall:

Contour maps of estimation error. *Quantitative Finance*, 18(8), 1295-1313.

<https://doi.org/10.1080/14697688.2017.1390245>

Ciliberti, S., Kondor, I., & Mezard, M. (2007). On the Feasibility of Portfolio Optimization

under Expected Shortfall. *Quantitative Finance*, 7, 389-396.

<https://doi.org/10.1080/14697680701422089>

Doc Path. (17 de Mayo de 2022). Obtenido de <https://www.ambit-bst.com/blog/definici%C3%B3n-y-diferencias-de-kpi-y-m%C3%A9tricas>

El Peruano. (2018, junio 6). *Modifican Anexo N° 9 del Capítulo V «Información Complementaria» del Manual de Contabilidad para las Empresas del Sistema Financiero-RESOLUCION-Nº 2237-2018*. Diario El Peruano.

<http://busquedas.elperuano.pe/normaslegales/modifican-anexo-n-9-del-capitulo-v-informacion-complement-resolucion-no-2237-2018-1657250-1/>

Forbes. (2022 de Febrero de 2018). *Forbes Mexico*. Obtenido de <https://www.forbes.com.mx/que-es-un-portafolio-de-inversion-y-como-armar-uno/>

Feria, J. M., & Oliver, M. D. (2007). Más allá del valor en riesgo (VeR): El VeR condicional. *Revista europea de dirección y economía de la empresa*, 16(2), 61-70.

FRM. (2019). *Market Risk Measurement and Management*. Kaplan Schweser.

Gilli, M., & Kellezi, E. (2002). A Global Optimization Heuristic for Portfolio Choice with VaR and Expected Shortfall. En E. J. Kontoghiorghes, B. Rustem, & S. Siokos (Eds.), *Computational Methods in Decision-Making, Economics and Finance* (pp. 167-183). Springer US. https://doi.org/10.1007/978-1-4757-3613-7_9

Krokhmal, P., Palmquist, J., & Uryasev, S. (2002). Portfolio optimization with conditional value-at-risk objective and constraints. *Journal of risk*, 4, 43-68.

Llorente, J. (20 de Noviembre de 2014). *Economipedia*. Obtenido de <https://economipedia.com/definiciones/activo.html>

Mártin, M. (2005). El Condicional Value at Risk en la gestión de carteras latinoamericanas. *Revista de Temas Financieros*, 105-117.

Medina Arauco, J. A., & Mendoza Vasquez, V. M. (2019). *Optimización del conditional value at risk: Aplicación al fondo 3 de las AFP'S en Perú para los años 2009-2015* [Universidad Católica Santo Toribio de Mogrovejo]. <http://tesis.usat.edu.pe/handle/20.500.12423/3399>

Nakagawa, K., Noma, S., & Abe, M. (2020). RM-CVaR: Regularized Multiple \$\beta\$-CVaR Portfolio. *Proceedings of the Twenty-Ninth International Joint Conference on Artificial Intelligence*, 4562-4568. <https://doi.org/10.24963/ijcai.2020/629>

Navarrete, P. (2012). *OPTIMIZACIÓN DE PORTAFOLIOS DE INVERSIÓN A TRAVÉS DEL VALOR EN RIESGO CONDICIONAL (CVAR) UTILIZANDO CÓPULAS EN PARES.*

Pontificia Universidad Católica del Perú.

Rockafellar, R. T., & Uryasev, S. (2002). Conditional value-at-risk for general loss distributions. *Journal of Banking & Finance*, 26(7), 1443-1471. [https://doi.org/10.1016/S0378-4266\(02\)00271-6](https://doi.org/10.1016/S0378-4266(02)00271-6)

Sarykalin, S., Serraino, G., & Uryasev, S. (2008). Value-at-Risk vs. Conditional Value-at-Risk in Risk Management and Optimization. En *State-of-the-Art Decision-Making Tools in the Information-Intensive Age* (pp. 270-294). INFORMS.

<https://doi.org/10.1287/educ.1080.0052>

SBS. (2021). *Superintendencia de Banca, Seguros y AFP del Perú*. SBS Perú.

<https://www.sbs.gob.pe/>

Solís, J. (2019). *DESARROLLO DE UN MODELO DE OPTIMIZACIÓN DE PORTAFOLIO DE INVERSIÓN, USANDO EL CVaR COMO MEDIDA DE RIESGO Y EVALUACIÓN DEL IMPACTO DE LOS LÍMITES DE INVERSIÓN, DURANTE EL PERÍODO 2011-2016.*

Pontificia Universidad Católica del Perú.

Tapiero, C. (2004). Value at Risk and Risk Management. En *RISK and FINANCIAL*

MANAGEMENT. John Wiley & Sons Ltd.

Ucha, A. P. (17 de Diciembre de 2015). *Economipedia*. Obtenido de

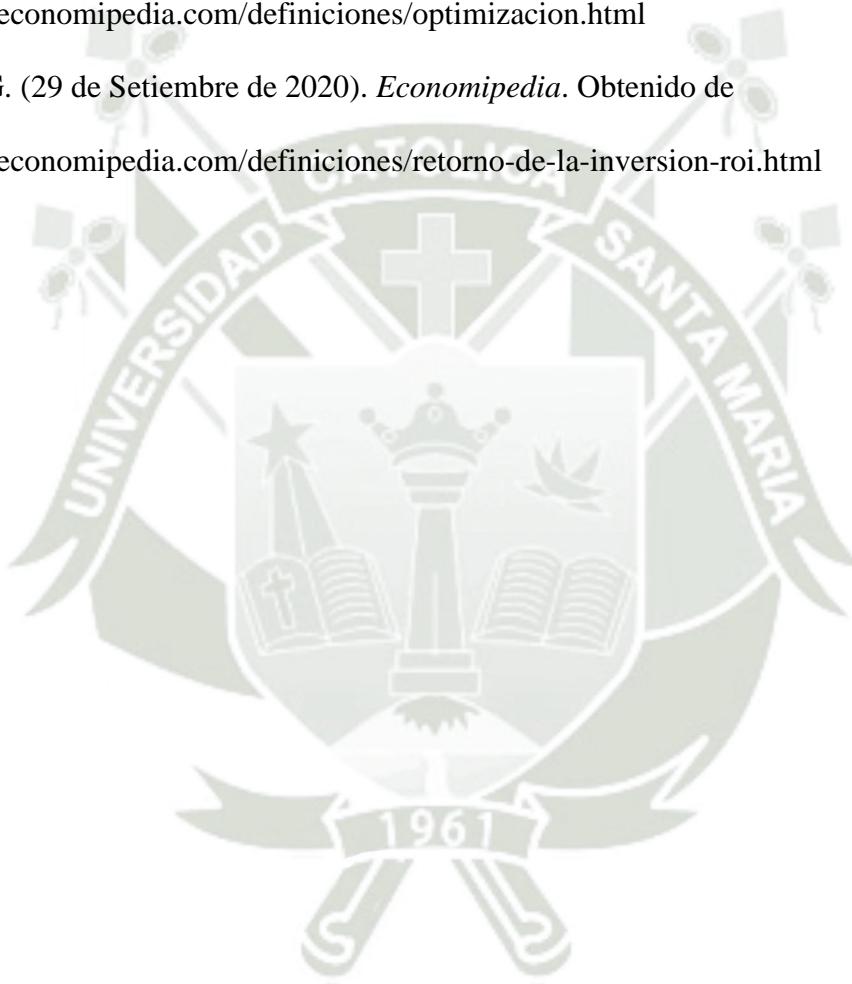
<https://economipedia.com/definiciones/mercado-de-capitales.html>

Westreicher, G. (24 de Mayo de 2020). *Economipedia*. Obtenido de

<https://economipedia.com/definiciones/optimizacion.html>

Westreicher, G. (29 de Setiembre de 2020). *Economipedia*. Obtenido de

<https://economipedia.com/definiciones/retorno-de-la-inversion-roi.html>



1.6. Hipótesis

Los fondos del tipo 3 de las AFPs peruanas pueden optimizarse a través de la estrategia de minimización de riesgo considerando el modelo Conditional Value at Risk.

2. PLANTEAMIENTO OPERACIONAL

2.1. Técnicas e instrumentos

La investigación se realizará mediante la recolección de información secundaria, debido a que se recopilaran los datos extraídos de la plataforma financiera Refinitiv Eikon la cual nos permite obtener una serie de datos, de las distintas variables (ETFs).

El primer paso para obtener la optimización del portafolio tipo 3 es recopilar los datos de las distintas variables o ETFs, siendo más específico los precios de cierre a los que cotizaron dichos instrumentos. Seguido a esto se calculará los retornos de los activos o instrumentos (ETFs), estos serán procesados como retornos logarítmicos.

Esto dará lugar al paso final el cual será la construcción del portafolio mediante el Conditional Value at Risk como medida de riesgo para el portafolio del fondo tipo 3, planteándose como objetivo minimizar el riesgo para obtener el mejor rendimiento, para esto se utilizará la herramienta R studio. Esto nos entregará como resultado la composición optima del portafolio del fondo tipo 3 de las AFPs peruanas seguido a esto realizará el análisis del rendimiento y riesgo del portafolio.

2.2. Estructuras de los instrumentos

Los instrumentos fueron seleccionados para recopilar la información los cuales serán de tipo documental:

- Tablas: Las tablas resumirán los datos adquiridos mediante la plataforma Refinitiv Eikon.
- Gráficos: Los gráficos se usarán para una mejor contemplación sobre las variables e indicadores, para que también se pueda apreciar las tendencias y así sea de fácil entendimiento.

2.3. Campo de verificación

2.3.1. Ámbito

El trabajo de investigación abarca el fondo tipo 3 de las AFPs peruanas.

2.3.2. Temporalidad

El periodo del presente trabajo de investigación es desde el año 2015 al 2021.

2.3.3. Unidades de estudio

El presente trabajo no considera unidades de estudio debido a que se utilizara únicamente información secundaria para el análisis.

2.4. Estrategia de recolección de datos

Para la estrategia de recolección de datos se indagará la información a través de la base de datos de Refinitiv Eikon, como también se buscará información de fuentes de carácter científico en las siguientes bases: Springer Link, Taylor & Francis, Arxiv Cornell University, y otras fuentes de datos científica. Además, se utilizará Schoolar Google como motor de búsqueda.

2.5. Recursos necesarios

2.5.1. Recursos humanos

Investigadores:

- Jenfri Javier Arce Guevara

2.5.2. Recursos materiales

Materiales de escritorio

- Bolígrafos.
- Resaltadores
- Escritorio.

Materiales para almacenar datos

- Memoria USB

Equipos

- 1 laptop
- 1 Modem Reuter

2.5.3. Recursos Financieros

Para la siguiente investigación se plantea el presupuesto de S/. 7,135.00 (Siete mil ciento treinta y cinco soles). El trabajo de investigación será financiado con recursos propios del investigador.

Item	Tiempo (meses)	Cantidad	Costo unitario	Costo total
A. Personal				
Honorarios del investigador 1	9	1	S/500.00	S/4,500.00
Materiales de escritorio				
Bolígrafos.	9	2	S/1.00	S/2.00
Resaltadores	9	2	S/4.00	S/8.00
Escritorio.	2	1	-	-
Materiales para almacenar datos				
Memoria USB	9	1	S/25.00	S/25.00
Servicios				
Búsqueda de Internet	9	-	S/100.00	S/900.00
Tramites administrativos				
Pago de derecho para titulación	2	1	S/1,700.00	S/1,700.00
Equipos				
1 laptop	9	1	-	-
1 modem reuter	9	1	S/750.00	S/750.00
TOTAL				S/7,135.00

ctivid ad	ENER O				FEBRE RO				MARZO				ABRIL				MAYO				JUNIO				JULIO				AGO STO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
elecció n del tema de tesis																																
emarca ción de la investig ación																																
efinició n del proble ma																																
efinició n de la interrog ante principa l																																
efinició n de las interrog antes secund arias																																
ustifica ción del proble ma																																
edacció n de los objetivo s de investig ación																																
ndagaci ón prelimin																																

2.6 Cronograma de la investigación