Universidad de Chile

Facultad de Ciencias Económicas y Administrativas
Carrera de Ingeniería Comercial

"Determinación de Óptimos para Análisis Técnico"

**Seminario para optar al título de
Ingeniero Comercial**

Profesor Guía: Antonino Parisi F.

Alumnos: Ignacio Nagel M.
Gustavo Schmincke A.

Santiago, Enero 2003

<u>**INDICE.**</u>

<u>INTRODUCCION.</u>

Desde los comienzos de la actividad bursátil, los inversionistas han intentado encontrar la forma de predecir el comportamiento futuro del precio de las acciones. Las principales técnicas se concentran en dos grupos, el análisis fundamental y el análisis técnico.

En el presente trabajo nos detendremos específicamente en algunos de los criterios del análisis técnico, como son el Indicador de Fuerza Relativa (RSI), el Oscilador de Williams (%R), el Momentum y el Oscilador %K o Índice G.

Todos estos criterios se basan principalmente en el estudio del comportamiento histórico de los mercados en sí mismos; los principales supuestos están relacionados con la posibilidad de predecir los precios futuros en base a la información que se obtiene de los precios pasados. Esto se sustenta principalmente por:

- El mercado en sí ofrece la información suficiente para predecir sus tendencias;
- Los precios evolucionan basados en determinadas tendencias;
- El pasado ayuda a predecir el futuro.

En las páginas que siguen intentaremos despejar las dudas sobre la real posibilidad de obtener retornos sobre los normales en base a la aplicación de éstas técnicas, y para no dejarse engañar haremos las correspondientes comparaciones entre los criterios mencionados anteriormente y la estrategia de "buy and hold".

¿Para qué? y ¿Cómo?, lo detallaremos a continuación en los objetivos y metodologías a utilizar para presentar nuestra investigación y resultados.

1.- OBJETIVOS.

1)   Una de las principales interrogantes que nos llevó a realizar esta investigación es analizar la eficacia de los distintos criterios de análisis técnico sobre una muestra de acciones del Índice Standard & Poor´s 500 (S&P 500), observando la existencia de retornos mayores a los obtenidos por una estrategia pasiva como la de "buy and hold".

2)   Otra interrogante que buscaremos revelar es si los resultados obtenidos varían significativamente entre la utilización de datos diarios y semanales, puesto que los plazos de inversión son representativamente diferentes, por ejemplo, entre 15 días (3 semanas) y 15 semanas (casi 4 meses), pueden producirse cambios que afectarán de distinta forma a ambas inversiones.

3)   Luego de resolver ambos cuestionamientos, nuestro objetivo será poder determinar si realmente existen óptimos para las inversiones basadas en éstos criterios de análisis técnico.

2.- FUNDAMENTOS DEL ANÁLISIS TÉCNICO.

Innumerables críticas han surgido durante los años en los que el análisis técnico se ha presentado como un criterio a utilizar en las inversiones bursátiles. La principal, se basa en los supuestos sobre eficiencia de los mercados y las posibilidades reales que existen de ganarle a éste. Muchos investigadores han planteado la posibilidad de que existe eficiencia en los mercados accionarios, separándola principalmente en tres categorías: Eficiencia Fuerte, Semi-Fuerte y Débil. La presencia de algunos de éstos tipos de eficiencia en los mercados condiciona fuertemente la posibilidad de obtener retornos sobre los normales, o de "ganarle al mercado". Estas eficiencias difieren entre si en la cantidad y el tipo de información que realmente los precios incorporan, además del tiempo que demoran en hacerlo.

Puesto que el análisis técnico no tiene un fundamento teórico detrás, se cuestiona la posibilidad de que aplicarlo entregue realmente la oportunidad de ganarle al mercado. Lo que el análisis técnico plantea es la posibilidad de predecir el comportamiento de las acciones basado en su información histórica, es decir, basándose principalmente en que la información necesaria para lograr esta predicción se encuentra en su comportamiento pasado.

Existen principalmente dos tendencias dentro del análisis técnico, una, la que se basa principalmente en los movimientos y la tendencias gráficas, conocida como "chartista" (por su significado en Inglés), y una segunda, que se basa principalmente en indicadores

estadísticos, que es en la que nos detendremos a analizar y con la cual trabajaremos en la presente investigación.

3.- METODOLOGÍA.

La forma en la que buscaremos las respuestas a la preguntas previamente planteadas, se detallará a continuación:

3.1.- LA MUESTRA:

Antes de detallar como obtuvimos el tamaño de nuestra muestra de acciones, vamos a detenernos brevemente en explicar el origen de las acciones seleccionadas.

El S&P 500 (de Standard & Poor's) es un índice basado en los 500 valores más representativos del mercado USA.

La influencia de cada una de estas 500 compañías en el índice es directamente proporcional al valor de la compañía en el mercado, característica que permite cubrir con facilidad de cálculo, mediante derivados, los riesgos de las grandes (y pequeñas) carteras.

El índice siempre se obtiene con 500 valores. Solamente cuando existe una baja de un valor, se incorporará otro al índice. La decisión de incorporar un nuevo valor la realiza un comité específico creado para ello que sigue un proceso de selección en el cual es necesario que las empresas candidatas acrediten un alto grado de liquidez como condición previa.

Standard & Poor's (S&P) presentó en el mercado el SP500 en 1957 y desde entonces, ha servido de referencia para todos los operadores de dentro y fuera del país.

Su liquidez es la mayor de todos los productos que se cotizan en el mundo, ya que es usado por más del 95% de los responsables de cuentas y planes de pensiones USA.

La principal razón para elegir nuestra muestra a partir de éste índice es la ya mencionada liquidez y representatividad de cada uno de sus componentes, lo que facilita la obtención de la información necesaria para nuestro análisis.

3.1.1.- TAMAÑO DE LA MUESTRA.

En una muestra compuesta por voluntarios, las personas escogen responder, en una muestra de conveniencia, es el encuestador quien elige. En ambos casos la elección personal da lugar al sesgo. La solución estadística es dejar que el azar escoja la muestra. Una muestra escogida al azar no permite favoritismos del encuestador ni tampoco la autoelección por parte de los encuestados. Escoger una muestra al azar ataca al sesgo, ya que da a todos los individuos las mismas posibilidades de ser escogidos.

Una muestra aleatoria simple no sólo da a cada individuo la misma oportunidad de ser escogido (evitando por tanto el sesgo en la selección), sino que también da a cada posible muestra la misma oportunidad de ser escogida.

Estos mismos impedimentos se dan en la selección de una muestra de acciones, por lo tanto, para evitar esto, utilizamos una muestra aleatoria simple (m.a.s).

Al seleccionar suficientes observaciones puedes conseguir a la vez un nivel de confianza elevado y un error de estimación pequeño. El error de estimación, para la media de una población que se distribuye normalmente (como es éste el caso ya que por su gran tamaño es valido suponerlo), es $m = z * \sigma / \sqrt{n}.$

El valor asignado a z es de 1.960, que corresponde a un nivel de confianza de 95%.

El tamaño utilizado de la muestra para obtener un error de estimación m pequeño, es de 100 acciones escogidas al azar lo que nos entrega un valor para m de 0.00009 el cual es bastante aceptable.

El valor de σ asociado a esta muestra (desviación estándar de las rentabilidades de las acciones seleccionadas) corresponde a 0.000456622.

Para obtener la muestra se le asignó a cada una de las 500 acciones un número (de 1 a 500), los cuales a través de la función Aleatorio de Microsoft Excel, se obtuvieron los siguientes: (ordenados alfabéticamente según su sigla)

TABLA N°1:   ACCIONES SELECCIONADAS

SIGLA	EMPRESA	SIGLA	EMPRESA	SIGLA	EMPRESA
ADP	AUTOMATIC DATA	DG	DOLLAR GEN	NTRS	NORTHERN TRUST
AEP	AMER ELEC PWR	DIS	WALT DISNEY CO	ODP	OFFICE DEPOT
AES	THE AES CORP	DTE	DTE ENERGY	ORCL	ORACLE CORP
AMAT	APPLIED MATL	DUK	DUKE ENERGY	OXY	OCCIDENTAL PETE
AMR	AMR CORP	EK	EASTMAN KODAK	PBI	PITNEY BOWES INC
AOL	AOL TIME WARNER	EMC	EMC CORP	PCAR	PACCAR INC
APC	ANADARKO PETE	EP	EL PASO CORP	PCL	PLUM CREEK TIMB
AT	ALLTEL CORP	EXC	EXELON CORP	PD	PHELPS DODGE CP
AXP	AMER EXPRESS CO	F	FORD MOTOR CO	PEP	PEPSICO INC
BA	BOEING CO	FDC	FAMILY DLR STRS	PFE	PFIZER INC
BAC	BANK OF AMERICA	FRE	FREDDIE MAC	PG	PROCTER & GAMBLE
BC	BRUNSWICK CORP	G	GILLETTE CO	PGN	PROGRESS ENERGY
BK	BANK OF NEW YORK	GE	GENERAL ELEC CO	PGR	PROGRESS CORP OH
BLS	BELLSOUTH CORP	GT	GOODYEAR TIRE	PLL	PALL CORP
BMET	BIOMET INC	GWW	W W GRAINGER INC	PPG	PPG IND
BUD	ANHEUSER BUSCH	HD	HOME DEPOT INC	RSH	RADIOSHACK
C	CITIGROUP	HMA	HEALTH MGMT	S	SEARS ROEBUCK
CAT	CATERPILLAR INC	HON	HONEYWELL INTL	SBC	SBC COMMS
CD	CENDANT CP	HPQ	HEWLETT-PACKARD	SHW	SHERWIN-WILLIAMS
CIN	CINERGY CORP	INTC	INTEL CORP	SLB	SCHLUMBERGER LTD
CL	COLGATE PALMOLIV	JNJ	JOHNSON&JOHNSON	SO	SOUTHERN CO
CMCSK	COMCAST A SPCL	JPM	JP MORGAN CHASE	SUNW	SUN MICROSYS
COP	CONOCOPHILLIPS	KEY	KEYCORP NEW	SWY	SAFEWAY INC
COST	COSTCO WHOLESAL	KMB	KIMBERLY-CLARK	T	AT&T CORP
CSC	COMPUTER SCIENCE	KO	COCA COLA CO	TXU	TXU CORP
CSCO	CISCO SYSTEMS	KR	KROGER CO	TYC	TYCO INTL
CTAS	CINTAS CORP	LMT	LOCKHEED MARTIN	UTX	UNITED TECH CP
CTL	CENTURYTEL INC	MCD	MCDONALDS CORP	VZ	VERIZON COMMS
CUM	CUMMINS INC	MDT	MEDTRONIC INC	WFC	WELLS FARGO & CO
CVX	CHEVRONTEXACO	MER	MERRILL LYNCH	WMB	WILLIAMS COS INC
CZN	CITIZENS COMMS	MMM	3M COMPANY	WMI	WASTE MANAGEMNT

D	DOMINION RES INC	MO	PHILIP MORRIS	XOM	EXXON MOBIL
DD	DU PONT CO	MOLX	MOLEX INC	XRX	XEROX CORP
DELL	DELL COMPUTER				

3.2.- DATOS.

Para la realización de las pruebas y la posterior comparación de éstas, nos basamos en dos tipos de datos: Diarios y Semanales.

Para ambos datos el período de recolección fue de 10 años, a partir del 31 de Agosto de 1992 hasta el 30 de Agosto de 2002. (2522 datos Diarios y 521 datos Semanales).

La extensión del período se basa fundamentalmente en la idea de poder absorver la mayor cantidad de ciclos económicos, tales como la llamada "crisis asiática" o el boom de las empresas punto com.

Como no existe un óptimo que nos asegure cuántos Días o Semanas utilizar para el cálculo de cada técnica, y con el fin de obtener otro posible contraste, los criterios se utilizaron en distintos periodos de tiempo, 5, 10, 15 y 20 para ambos tipos de datos.

Los datos fueron obtenidos a través de la pagina financiera del sitio yahoo.com (http://finance.yahoo.com)

El trabajo con los datos obtenidos se realizó principalmente a través del programa "Análisis Técnico Parisi", para los datos Diarios y a través de Macros diseñados especialmente para el caso de los datos Semanales, en Microsoft Excel.

4.- CRITERIOS.

Las criterios utilizados en la búsqueda de óptimos para inversión son los Osciladores (3) y el Momentum.

<u>4.1.- OSCILADORES.</u>

Los osciladores son índices que fluctúan alrededor de una banda determinada de valores posibles.

Varios son los osciladores que se utilizan en el análisis técnico. La principal aportación de los osciladores y del momentum, es que avisan de los cambios de tendencias antes que las medias y las líneas de resistencia. Recuérdese que las medias, por ejemplo, permiten detectar un cambio de tendencia cuando éste ya se ha iniciado.

4.1.1.- INDICADOR DE FUERZA RELATIVA (RSI).

El RSI tiene un elevado poder predicativo ya que detecta cuando una acción está sobrevalorada (sobrecomprada) o infravalorada (sobrevendida). Por tanto se utiliza para obtener señales de venta o de compra.

Su cálculo requiere la utilización de los datos de unas 10 a 15 sesiones. De éstas sesiones interesa conocer los incrementos y decrementos de precios que ha habido en relación a los precios de salida.

A continuación, se hace el promedio de los incrementos producido en las sesiones en que ha habido un precio de cierre mayor que el de salida y el promedio de decrementos en las sesiones en que ha habido un precio de cierre inferior al de apertura o de salida que es el de cierre del período anterior. Para calcularlo se aplica la formula siguiente:

$$RSI = 100 - \left(\frac{100}{1 + \left(\frac{AU}{AD}\right)}\right)$$

AU (Average UP): Promedio de incremento de precios de cierre en relación a la sección anterior.

AD (Average DOWN): Promedio de descenso de precios de cierre.

Para analizar el RSI se ha de tener en cuenta que cuando su valor está por encima de 70 indica que el título está sobrecomprado y cuando está por debajo de 30 el título está sobrevendido.

4.1.2.- OSCILADOR DE WILLIAMS (%R).

Al igual que el RSI indica cuando un título está sobrevalorado o infravalorado. Se calcula para un plazo determinado que va de 5 a 20 días. Utiliza el precio más alto, el más bajo y el último precio de cierre del período considerado. Para calcularlo se utiliza la fórmula siguiente:

$$\%R = 100 * \frac{(A - U)}{(A - B)}$$

A: Precio más alto del período.

B: Precio más bajo del período.

U: Ultimo precio de cierre.

Una vez calculado el oscilador, se interpreta así:

%R > 80: Señal de compra.

%R < 20: Señal de venta.

4.1.3.- OSCILADOR %K O INDICE G.

Se basa en que cuando los precios aumentan, el precio de cierre está cerca del máximo del día y viceversa. Para calcularlo se utiliza la fórmula:

$$\%K = 100 * \frac{(U - B)}{(A - B)}$$

U: Ultimo precio.

B: Precio más bajo del período.

A: Precio más alto del período.

El análisis de este oscilador se hace utilizando los siguientes criterios:

%K > 80: Señal de venta.

%K < 20: Señal de compra

4.2- EL MOMENTUM O MOMENTO:

El momentum es un indicador de velocidad en las subidas o bajadas en la cotización. El funcionamiento de las bases del momentum es muy similar a lo que ocurre cuando se lanza una moneda hacia arriba. Al principio de la subida, la moneda lleva una fuerte aceleración (un momento fuerte) que se va reduciendo a medida que sigue subiendo. A medida que la velocidad de la moneda se va desacelerando (momento débil) está próximo el inicio del descenso y, por parto, el cambio de tendencia.

El momento sirve para detectar sobrevaloraciones o infravaloraciones y, por tanto, también proporciona señales de venta o de compra.

Para calcularlo se toman datos de 5 o 10 sesiones. Estos datos son los últimos precios de cierre de las sesiones correspondientes. La fórmula de cálculo es:

$$M_{(i)} = U - P_{N-i}$$

U: Ultimo precio de cierre.

P_{N-i}: Precio de cierre de la sesión que tuvo lugar (i) días antes.

El análisis del momento se hace siguiendo los criterios siguientes:
- Si el momento aumenta: señal de compra.
- Si el momento se reduce: señal de venta.
- Si el momento permanece constante significa que la tendencia pierde fuerza y, por tanto, puede haber cambio de la misma.

5.- ¿QUÉ ENTENDEMOS POR ÓPTIMO?

Para determinar la eficiencia de la aplicación de una técnica utilizaremos en primer lugar un indicador que llamaremos "Frecuencia" que mide en el número de veces que la estrategia de "buy and hold" obtiene mejores resultados que la aplicación de una determinada técnica, por lo tanto, cuando este indicador sea inferior al 50% nos estará mostrando que la aplicación de la técnica supera a la estrategia pasiva en la totalidad del período analizado.

Si esto ocurre el paso siguiente será determinar si existe un excedente positivo a favor de la técnica, comparando la Rentabilidad Promedio Anual obtenida al aplicar dicha técnica con respecto de la Rentabilidad Promedio Anual del "buy and hold". Si éste valor es positivo significa que estamos obteniendo retornos sobre los normales y estamos en una situación óptima.

6.- ANÁLISIS DE LOS DATOS.

A continuación, detallaremos la aplicación de los distintos criterios antes mencionados, desarrollando en primer lugar los datos diarios, para 5, 10, 15 y 20 días, basándonos en las formulas antes descritas, para luego aplicar esto a los datos semanales con los mismos intervalos de tiempo.

6.1.- OSCILADOR RSI:

Esta aplicación se realizó para el total de las acciones de la muestra (resultados que se encuentran detallados en la sección Anexos).

6.1.1.- DATOS DIARIOS:

En la Tabla N°2 se muestra la **selección de acciones por frecuencia**, las acciones que aquí aparecen son las que para algún período (5, 10, 15 y/o 20) entregan una frecuencia favorable, es decir, inferior al 50%, lo que refleja el número de veces que la estrategia "buy and hold" es superada por la aplicación de la técnica.

Esta explicación es válida para las Tablas N° 2, 7, 12, 17, 22, 27, 32 y 37.

TABLA N°2:   **SELECCIÓN DE ACCIONES POR FRECUENCIA.**

ACCION	FREC (5)	FREC (10)	FREC (15)	FREC (20)
ADP	41.99%	54.88%	59.51%	55.76%
AEP	43.39%	60.39%	59.20%	65.84%
AMR	29.38%	47.18%	50.08%	70.33%
APC	54.29%	45.69%	64.94%	34.74%

CIN	38.90%	56.28%	73.72%	75.62%
COP	41.77%	71.48%	82.46%	76.83%
CSC	69.50%	35.30%	78.39%	71.79%
CTL	70.70%	47.75%	73.81%	66.92%
CVX	48.91%	47.78%	63.63%	57.41%
CZN	30.58%	27.50%	42.42%	21.64%
DTE	67.54%	60.52%	57.02%	48.24%
EK	31.28%	40.39%	43.97%	56.63%
EXC	69.18%	48.71%	51.57%	56.83%
F	33.66%	55.00%	63.09%	55.88%
FRE	58.27%	58.48%	48.11%	79.17%
HPQ	63.75%	50.85%	53.59%	48.66%
KEY	63.27%	59.74%	41.72%	55.63%
KMB	53.01%	41.33%	64.93%	58.16%
MOLX	74.98%	48.81%	55.90%	68.25%
ODP	44.02%	64.33%	58.78%	58.20%
OXY	75.26%	46.76%	52.12%	70.77%
PD	34.71%	41.26%	37.46%	44.97%
PEP	36.60%	58.90%	66.96%	64.11%
PLL	46.93%	63.58%	52.51%	58.28%
S	71.58%	49.26%	45.36%	60.11%
SHW	49.56%	60.73%	73.33%	61.97%
T	54.90%	41.20%	29.32%	42.92%

Observamos que las acciones presentan frecuencias que cambian según el plazo en el que se aplique la técnica. En la mayoría de los casos las frecuencias sólo son favorables para un determinado plazo, pero podemos distinguir casos particulares como CZN y PD las cuales presentan frecuencias favorables en todos los plazos analizados.

La Tabla N°3 muestra la misma selección de acciones que presentaron frecuencias favorables, pero ahora analizadas según su **rentabilidad promedio anual** al aplicarle la técnica.

Esta explicación es válida para las Tablas N°3, 8,13, 18, 23, 28, 33 y 38.

TABLA N°3:   RENTABILIDAD PROMEDIO ANUAL DE LA TÉCNICA PARA LAS ACCIONES SELECCIONADAS.

ACCION	R.P.A.(5)	R.P.A.(10)	R.P.A. (15)	R.P.A. (20)
ADP	22.55%	15.70%	13.80%	15.82%
AEP	15.26%	4.41%	4.84%	3.87%
AMR	8.14%	9.09%	1.69%	-8.78%
APC	10.52%	16.70%	4.09%	16.63%
CIN	11.00%	6.87%	2.77%	-0.38%
COP	20.46%	5.55%	-0.10%	2.91%
CSC	10.08%	31.10%	1.01%	4.79%
CTL	7.94%	4.00%	0.08%	-0.34%
CVX	13.03%	47.78%	9.92%	11.15%
CZN	1.82%	0.96%	2.01%	6.66%
DTE	6.19%	7.21%	10.83%	10.33%
EK	9.75%	8.12%	4.37%	-2.62%
EXC	7.09%	6.00%	9.52%	3.51%
F	8.55%	2.07%	5.53%	-3.32%
FRE	24.78%	20.21%	22.70%	10.66%
HPQ	10.94%	16.10%	14.25%	26.74%
KEY	5.46%	3.71%	14.46%	0.00%
KMB	12.43%	15.05%	4.71%	10.25%
MOLX	-1.06%	11.57%	14.21%	0.00%
ODP	17.43%	6.44%	8.58%	-0.28%
OXY	-8.42%	12.46%	13.02%	5.00%
PD	7.96%	7.36%	9.56%	3.79%
PEP	15.33%	7.36%	4.06%	5.17%
PLL	6.28%	-0.58%	0.23%	-0.05%
S	-0.23%	9.71%	5.28%	2.55%
SHW	9.86%	6.49%	-0.43%	0.00%
T	-5.64%	3.68%	4.45%	-2.35%

Los números marcados en azul, corresponden a las frecuencias que en la tabla anterior eran inferiores al 50%, en la mayoría de los casos éstas rentabilidades resultan ser las mayores, pero existen casos como FRE, donde esto no se cumple, es decir, existe una rentabilidad mayor con una frecuencia desfavorable. Para nosotros esta situación podría explicarse por dos posibles razones: la primera, una desviación estándar alta (como medida de las variaciones de los resultados), que entregue una mayor rentabilidad al asumir un mayor riesgo, esta situación se puede analizar en la tabla siguiente; o la segunda, que puede ser que se den situaciones donde una frecuencia cercana al 50% (en general mayores que 45%), de todas maneras no sea la que entregue la mayor rentabilidad puesto que la frecuencia sólo mide el número de veces que la técnica le gana a la estrategia pasiva, pero no la magnitud en que lo hace cada vez.

La siguiente tabla muestra los resultados correspondiente a las **desviaciones estándar** de las rentabilidades promedio anual de la aplicación de la técnica para cada una de las acciones seleccionadas por frecuencia.

Esta explicación es válida para las Tablas N°4, 9, 14, 19, 24, 29, 34 y 39.

TABLA N°4:   **DESVIACIÓNES ESTANDAR DE LAS ACCIONES SELECCIONADAS.**

ACCION	D.E. (5)	D.E.(10)	D.E. (15)	D.E. (20)
ADP	19.85%	18.41%	15.20%	13.27%
AEP	25.16%	9.17%	10.10%	12.17%
AMR	28.74%	28.74%	20.47%	22.74%
APC	21.91%	17.97%	14.32%	29.93%
CIN	15.91%	14.21%	13.04%	5.57%
COP	16.67%	10.86%	2.00%	10.54%
CSC	27.22%	31.75%	5.66%	11.58%
CTL	28.37%	10.86%	15.23%	2.83%
CVX	10.44%	9.75%	11.05%	13.15%
CZN	18.81%	19.72%	27.37%	26.72%
DTE	12.41%	16.58%	20.02%	18.25%
EK	17.18%	14.83%	17.12%	18.68%
EXC	21.00%	17.18%	18.95%	9.95%
F	18.49%	23.49%	12.69%	13.34%
FRE	16.00%	19.13%	16.91%	14.66%
HPQ	22.96%	39.06%	45.66%	31.46%
KEY	17.89%	14.56%	19.97%	0.00%
KMB	11.96%	17.41%	10.25%	17.20%
MOLX	16.58%	16.67%	36.04%	0.00%
ODP	43.52%	37.35%	44.70%	31.70%
OXY	15.26%	18.28%	14.07%	13.38%
PD	21.70%	17.61%	22.14%	38.98%
PEP	15.10%	9.43%	7.48%	12.08%
PLL	12.29%	10.54%	9.80%	6.56%

S	21.66%	16.67%	17.26%	16.70%
SHW	12.29%	10.86%	14.07%	0.00%
T	24.66%	15.00%	28.50%	10.58%

Nuevamente se da para la mayoría de los casos una situación que se podía esperar, es decir, frecuencias favorables, altas rentabilidades y mayores desviaciones. Aunque como se ha mencionado en los casos anteriores, existen excepciones, por ejemplo en ODP la mayor desviación estándar no es la que acompaña a la mejor frecuencia, y a la vez esta desviación "menor" esta acompañada por una rentabilidad mayor, lo que significa en esta caso que la aplicación a 5 días domina a la de 15 días.

La tabla N°5 muestra los **excedentes** de rentabilidad que obtienen las acciones anteriormente seleccionadas al comparar la rentabilidad promedio anual de la aplicación de la técnica versus la estrategia pasiva o "buy and hold".

Esta explicación es válida para las Tablas N°5, 10, 15, 20, 25, 30, 35 y 40.

TABLA N°5:   **EXCEDENTES DE RENTABILIDAD PARA LAS ACCIONES SELECCIONADAS.**

ACCION	EXCED (5)	EXCED (10)	EXCED (15)	EXCED (20)
ADP	3.46%	-3.25%	-5.18%	-3.18%
AEP	4.66%	-6.09%	-5.62%	-6.54%
AMR	7.53%	8.49%	1.12%	-9.33%
APC	-6.15%	-6.97%	-12.51%	8.09%
CIN	0.31%	-3.71%	-7.79%	-10.91%
COP	7.87%	-6.95%	-12.60%	-9.56%
CSC	-9.72%	11.21%	-18.75%	-14.91%
CTL	-8.16%	-12.22%	-15.97%	-16.38%
CVX	-0.58%	-2.40%	-3.53%	-2.30%
CZN	2.16%	1.37%	2.49%	7.22%

DTE	-4.73%	-3.71%	-0.07%	-0.65%
EK	6.07%	4.52%	0.85%	-6.04%
EXC	-8.28%	-9.46%	-5.79%	-11.75%
F	3.26%	-3.14%	0.37%	-8.42%
FRE	0.21%	-4.36%	-2.08%	-13.91%
HPQ	-6.72%	-1.53%	-3.38%	8.92%
KEY	-5.36%	-7.07%	3.63%	-10.72%
KMB	-1.17%	1.28%	-8.98%	-3.48%
MOLX	-17.36%	-4.80%	-2.02%	-16.19%
ODP	1.59%	-9.21%	-6.98%	-15.76%
OXY	-18.46%	2.35%	3.00%	-5.01%
PD	5.96%	5.35%	7.52%	1.72%
PEP	2.61%	-5.28%	-8.60%	-7.50%
PLL	1.22%	-5.60%	-4.82%	-5.13%
S	-18.37%	-8.36%	-12.62%	-15.10%
SHW	-0.36%	-3.92%	-10.55%	-10.08%
T	-2.87%	6.61%	7.46%	0.75%

En la Tabla anterior vemos un poco el resumen de lo que previamente exponíamos, frecuencia favorable – rentabilidad alta – desviación estándar alta y un mayor excedente, aunque como hemos mencionado anteriormente, existen casos en los cuales esto no se cumple. Esto puede entenderse como, rentabilidad alta y desviación "menor", excedente positivo y frecuencia desfavorable, o frecuencia favorable y excedente negativo, esto se da principalmente para los casos donde las frecuencias fluctúan entre 45% y 50%.

Podemos observar que a pesar de tener frecuencias favorables (menores que 50%), existen excedentes negativos, lo que equivale a decir que los retornos entregados por la estrategia pasiva son superiores, en promedio, a los de la aplicación de la técnica.

Otro punto importante que destacar es que tenemos casos de acciones como CZN y PD que presentan frecuencias favorables en todos los plazos analizados, entregando en todos los casos excedentes positivos, aunque difieren entre sí, maximizándose en 20 días para CZN y 15 días para PD.

Cabe destacar también, que acciones como CVX y S en sus dos apariciones presentan excedentes negativos, a pesar de sus bajas frecuencias.

Para un análisis más general, a continuación se presenta, en la Tabla N°6, un resumen de los resultados previamente analizados, tabla que muestra en su primera columna el número de días en los que se aplicó el criterio; en la segunda columna el número de acciones seleccionadas por presentar frecuencias inferiores al 50%; en la tercera columna aparece el promedio de los excedentes entregados por estas acciones; en la cuarta columna se muestra el promedio de las desviaciones estándar de dichas acciones; en la quinta columna se muestra como varía el promedio anterior al eliminar acciones que presentan excedentes negativos, es decir, pese a su frecuencia favorable, la rentabilidad de la estrategia pasiva es superior a la de la técnica, el objetivo de esta columna es considerar sólo las acciones en las que sería conveniente invertir dada la recomendación hecha por la técnica dejando de lado la presencia de una frecuencia favorable; para finalizar con una columna donde se muestra el numero de acciones con que se calculó el promedio anterior.

Esta explicación es válida para las tablas N° 6,11, 16, 21, 26, 31 ,36 y 41.

TABLA N°6:   **ANALISIS GENERAL**

RSI	DIAS	N° ACCIONES	PROM. EXCED	PROM D.E.	PROM S/NEG	ACC POS
	5	14	3.27%	21.35%	3.89%	12
	10	14	-0.22%	18.89%	2.76%	8
	15	7	1.04%	21.79%	4.22%	5
	20	6	4.34%	25.84%	5.34%	5

Podemos apreciar que los mejores resultados, desde el punto de vista de la rentabilidad, se encuentran al aplicar la técnica a un plazo de 20 días, incluso si eliminamos los excedentes negativos el resultado sigue siendo el mismo. Cabe notar que el esperado "trade off" entre rentabilidad y riesgo se cumple, ya que las mayores rentabilidades traen consigo mayores riegos (desviación estándar).

6.1.2.- DATOS SEMANALES:

Los procedimientos que se realizan a continuación siguen el mismo esquema de los datos anteriormente analizados, pero con la salvedad de que los datos en este caso son semanales, por lo tanto, hablaremos de 5, 10, 15 y 20 semanas.

TABLA N°7:   **SELECCIÓN DE ACCIONES POR FRECUENCIA.**

ACCION	FREC (5)	FREC (10)	FREC (15)	FREC (20)
AMR	36.99%	59.13%	56.70%	57.11%
APC	57.20%	54.78%	39.34%	65.11%
CUM	51.83%	45.65%	40.22%	52.00%
CZN	52.47%	39.13%	43.08%	42.67%
D	55.91%	74.35%	56.92%	47.33%
EK	48.17%	49.13%	63.52%	51.33%
F	46.67%	50.43%	51.87%	53.78%
KEY	70.11%	38.04%	54.95%	55.56%
KO	49.68%	61.30%	65.59%	66.44%
MMM	42.58%	62.83%	75.82%	75.56%
MO	48.60%	59.57%	64.40%	71.56%
ODP	49.03%	43.70%	51.21%	76.67%
PCL	68.82%	55.65%	45.93%	61.78%
PD	38.49%	49.35%	61.10%	62.44%
PLL	40.86%	48.26%	51.21%	51.56%
S	69.89%	42.83%	60.00%	63.33%
T	39.57%	40.61%	45.49%	40.00%

Observamos que el número de acciones que presentan frecuencias favorables disminuye considerablemente en el caso de los datos semanales, sin embargo las acciones aquí seleccionadas coinciden en su mayoría con las seleccionadas por frecuencia para datos diarios, y nuevamente los resultados presentan variaciones considerables entre un período de tiempo y otro, también tenemos en este caso una acción que por frecuencia responde positivamente a todos los plazos (T).

TABLA N°8:   **RENTABILIDAD PROMEDIO ANUAL DE LA TÉCNICA PARA LAS ACCIONES SELECCIONADAS.**

ACCION	R.P.A. (5)	R.P.A. (10)	R.P.A. (15)	R.P.A. (20)
AMR	16.24%	-3.47%	-5.72%	-6.46%
APC	14.79%	12.56%	9.25%	0.00%
CUM	0.97%	2.64%	8.74%	-1.49%
CZN	-0.65%	-1.53%	-4.07%	-5.16%
D	8.11%	3.21%	9.64%	12.63%
EK	2.77%	0.17%	-4.30%	-0.40%
F	8.04%	1.01%	1.45%	-1.74%
KEY	0.93%	14.66%	0.00%	0.00%
KO	11.87%	3.57%	0.00%	0.00%
MMM	16.04%	7.05%	0.00%	0.00%
MO	14.32%	12.14%	9.89%	5.48%
ODP	6.52%	20.46%	5.39%	0.00%
PCL	11.77%	7.05%	11.84%	4.50%
PD	15.46%	3.07%	-4.07%	-4.88%
PLL	8.50%	2.90%	0.00%	0.00%
S	3.08%	18.70%	2.99%	0.00%
T	-3.05%	-2.14%	-1.98%	-3.85%

En este caso podemos apreciar que se sigue cumpliendo lo que esperábamos, las frecuencias más favorables se traducen en los mejores retornos, a pesar de esto, siguen existiendo excepciones como APC que tiene su mejor frecuencia en 15 semanas, pero sus retornos son superados en el periodos 5 y 10 semanas. Otro caso que llama la atención es el de T, la que a pesar de tener siempre frecuencia favorables, entrega en todos los casos retornos promedio negativas.

TABLA N°9:   **DESVIACIÓNES ESTÁNDAR DE LAS ACCIONES SELECCIONADAS.**

ACCION	D.E.(5)	D.E.(10)	D.E.(15)	D.E.(20)
AMR	34.18%	48.51%	25.87%	25.69%
APC	26.59%	27.37%	29.60%	0.00%
CUM	18.06%	21.86%	29.21%	19.26%
CZN	29.77%	18.17%	11.87%	11.31%
D	12.12%	9.17%	13.64%	16.88%
EK	19.42%	20.22%	16.19%	2.65%
F	26.63%	8.00%	9.54%	6.24%

KEY	16.94%	20.59%	0.00%	0.00%
KO	14.46%	15.23%	0.00%	0.00%
MMM	15.78%	14.97%	0.00%	0.00%
MO	33.30%	32.00%	35.45%	34.87%
ODP	20.42%	36.28%	28.30%	0.00%
PCL	22.78%	11.92%	14.00%	9.90%
PD	31.32%	18.47%	12.37%	12.33%
PLL	12.33%	9.33%	0.00%	0.00%
S	19.34%	26.89%	11.70%	0.00%
T	22.80%	17.80%	14.63%	10.39%

Un caso particular que podemos apreciar aquí que antes no se daba es el de CZN, esta acción presenta desviaciones más bajas para las frecuencias más favorables al contrario de lo que se podría esperar. Para el resto de las casos la situación se mantiene, es decir, mayores desviaciones acompañan a las mayores rentabilidades así como a las frecuencias más favorables.

TABLA N°10:   EXCEDENTES DE RENTABILIDAD PARA LAS ACCIONES SELECCIONADAS.

ACCION	EXCED (5)	EXCED (10)	EXCED (15)	EXCED (20)
AMR	15.56%	-4.02%	-6.18%	-6.87%
APC	-1.89%	-3.71%	-6.54%	-15.40%
CUM	-4.63%	-2.71%	3.75%	-6.15%
CZN	-0.19%	-0.71%	-2.90%	-3.62%
D	-3.70%	-8.36%	-1.80%	1.29%
EK	-0.77%	-2.96%	-6.84%	-2.43%
F	2.77%	-3.76%	-2.74%	-5.41%
KEY	-9.96%	3.79%	-10.96%	-11.12%
KO	-2.61%	-10.97%	-14.64%	-14.74%
MMM	2.65%	-6.34%	-13.47%	-13.50%
MO	-2.44%	-5.22%	-7.97%	-12.91%
ODP	-9.29%	5.28%	-9.38%	-14.34%
PCL	-5.64%	-9.81%	-4.28%	-10.83%
PD	13.33%	0.88%	-6.26%	-7.03%
PLL	3.33%	-2.38%	-5.40%	-5.51%
S	-14.82%	1.58%	-13.36%	-15.74%
T	-0.09%	1.27%	1.73%	0.00%

Podemos observar que al cambiar el tipo de datos, en este caso semanales, los resultados cambian considerablemente, un caso concreto es el de CZN que presentaba buenos excedentes, ahora presenta solo excedentes negativos en sus tres apariciones.

Es relevante notar que el plazo seleccionado para aplicar el criterio también es fundamental, un ejemplo claro es el de la acción T, donde al aplicar el criterio a 5 semanas, el excedente es negativo, mientras que al aplicarlo a 20 semanas el excedente es claramente positivo (8.19%).

Otro caso que vale destacar es el de las acciones AMR y PD, que al aplicar el criterio RSI a 5 semanas presentan muy buenas frecuencias (inferiores al 40%), y los máximos excedentes (mayores que 13%).

A continuación, al igual que en el caso anterior, se analizan los resultados de una forma más general.

TABLA N°11:   ANALISIS GENERAL.

RSI	SEMANAS	N° ACCIONES	PROM. EXCED	PROM D.E.	PROM S/NEG	ACC POS
	5	10	2.24%	22.47%	7.53%	5
	10	9	0.45%	22.18%	2.56%	5
	15	5	-1.65%	21.35%	2.74%	2
	20	3	1.95%	13.19%	4.74%	2

En este caso los mejores resultados, desde el punto de vista de los excedentes, se dan para la aplicación del criterio en 5 semanas, y al eliminar los excedentes negativos, éste resultado se mantiene para el mismo plazo. Todo esto acompañado de una desviación estándar mayor para el caso de 5 semanas.

6.2.- %R WILLIAMS:

Las tablas que se presentan a continuación deben interpretarse de la forma mencionada anteriormente para el oscilador RSI. Nuevamente el análisis de la muestra completa se encuentra disponible en la sección de anexos.

6.2.1.- DATOS DIARIOS:

TABLA N°12:   SELECCIÓN DE ACCIONES POR FRECUENCIA.

ACCION	FREC (5)	FREC (10)	FREC (15)	FREC (20)
ADP	45.25%	54.91%	52.84%	62.18%
AMAT	51.43%	44.97%	61.25%	60.42%
AMR	35.18%	20.56%	32.78%	34.40%
APC	60.67%	52.65%	43.23%	37.96%
AT	42.69%	58.30%	65.15%	66.85%
BA	46.00%	63.05%	65.48%	52.87%
BLS	14.30%	30.84%	41.94%	39.44%
BMET	23.54%	24.43%	38.43%	43.45%
BUD	32.27%	36.90%	3.27%	58.66%
C	43.04%	50.54%	63.62%	64.62%
CAT	56.52%	49.54%	50.61%	48.29%
CD	46.39%	35.12%	42.39%	48.82%
CMCSK	34.43%	34.09%	30.54%	61.73%
COP	69.09%	64.72%	47.76%	47.66%
COST	66.15%	43.21%	59.41%	57.37%
CSC	59.70%	39.51%	61.76%	63.52%
CTAS	27.33%	35.91%	42.39%	69.08%
CTL	44.24%	59.23%	45.35%	43.73%

CUM	45.98%	50.49%	47.63%	36.34%
CVX	60.58%	24.95%	38.08%	25.54%
CZN	22.76%	31.98%	55.56%	53.77%
DD	46.48%	50.08%	52.36%	57.84%
DG	70.80%	68.34%	48.64%	49.81%
EK	62.46%	35.19%	9.88%	28.96%
F	34.91%	40.03%	43.92%	30.45%
HMA	65.65%	60.86%	63.17%	48.98%
HON	45.61%	51.75%	52.87%	46.60%
HPQ	52.07%	49.68%	56.38%	55.78%
JNJ	55.28%	71.73%	41.83%	50.65%
KMB	36.27%	54.17%	81.15%	82.36%
KR	50.18%	48.91%	55.71%	50.58%
LMT	41.31%	58.06%	63.61%	64.54%
MCD	44.22%	50.68%	50.51%	57.77%
MMM	29.50%	41.73%	55.27%	51.67%
MO	48.53%	66.17%	65.51%	65.40%
MOLX	25.45%	44.33%	47.75%	46.47%
NTRS	48.40%	42.03%	45.46%	47.08%
ODP	60.09%	61.16%	39.63%	49.75%
ORCL	49.58%	63.01%	63.72%	59.61%
PBI	40.39%	52.21%	52.57%	52.10%
PCAR	28.51%	46.81%	37.46%	32.88%
PCL	44.66%	55.85%	66.75%	57.90%
PD	81.46%	62.48%	47.68%	56.54%
PEP	19.69%	24.99%	39.13%	37.32%
PG	45.20%	69.74%	64.03%	65.81%
PGN	76.93%	6.72%	57.51%	58.97%
PLL	32.94%	33.41%	43.15%	33.50%
S	39.88%	49.21%	51.44%	54.46%
SBC	30.23%	41.71%	35.97%	49.51%
SHW	44.23%	50.98%	43.20%	36.85%
SLB	43.92%	38.23%	35.95%	33.52%
SO	42.01%	60.23%	47.09%	49.46%
T	34.34%	37.97%	37.80%	35.86%
VZ	33.79%	20.37%	27.51%	35.86%
WFC	48.11%	54.32%	67.10%	61.82%
XOM	11.55%	42.13%	47.58%	47.68%

Es importante desecar el alto número de acciones con frecuencias favorables que se observan al aplicar este criterio con datos diarios. Muchas de las acciones presentan frecuencias favorables en todos los períodos analizados, pero será importante revisar como cambia el resto de los indicadores como rentabilidad y excedente.

TABLA N °13: RENTABILIDAD PROMEDIO ANUAL DE LA TÉCNICA PARA LAS ACCIONES SELECCIONADAS.

ACCION	R.P.A (5)	R.P.A (10)	R.P.A (15)	R.P.A (20)
ADP	21.48%	19.95%	20.71%	16.32%
AMAT	38.51%	55.14%	38.78%	30.65%
AMR	11.82%	15.19%	13.03%	13.58%
APC	8.43%	9.56%	14.57%	18.20%
AT	15.03%	11.78%	5.48%	7.20%
BA	14.26%	6.39%	5.25%	9.98%
BLS	31.02%	21.27%	18.06%	19.41%
BMET	59.63%	42.38%	31.69%	26.41%
BUD	28.39%	25.38%	17.44%	14.08%
C	32.79%	20.52%	19.20%	18.21%
CAT	8.86%	14.29%	15.19%	16.30%
CD	19.57%	16.85%	9.91%	8.99%
CMCSK	33.86%	31.96%	36.66%	13.39%
COP	9.48%	7.74%	11.61%	12.64%
COST	20.88%	33.38%	22.72%	19.06%
CSC	18.96%	23.40%	11.29%	7.20%
CTAS	35.97%	28.78%	25.33%	14.55%
CTL	11.66%	12.49%	12.89%	12.36%
CUM	2.33%	0.55%	-3.22%	4.08%
CVX	12.56%	18.60%	16.08%	18.81%
CZN	10.62%	0.73%	-8.11%	-5.80%
DD	15.99%	12.93%	12.60%	8.79%
DG	12.72%	14.92%	19.38%	23.05%
EK	0.64%	6.89%	17.17%	12.41%
F	9.82%	7.44%	6.41%	9.93%
HMA	25.15%	24.30%	24.73%	24.63%
HON	14.60%	13.07%	12.92%	16.68%
HPQ	23.46%	20.71%	15.13%	14.10%
JNJ	18.72%	14.75%	21.85%	21.22%
KMB	17.45%	10.56%	3.37%	1.01%
KR	28.55%	26.23%	22.21%	24.70%
LMT	19.56%	11.58%	6.81%	8.96%
MCD	14.57%	12.61%	12.35%	10.58%
MMM	19.99%	15.42%	12.01%	12.90%
MO	12.73%	3.86%	5.10%	5.74%
MOLX	33.32%	28.61%	16.02%	20.92%
NTRS	33.40%	27.76%	23.77%	22.49%
ODP	3.76%	2.22%	5.54%	9.04%
ORCL	59.28%	47.10%	29.59%	32.19%
PBI	22.45%	11.07%	11.15%	11.07%
PCAR	31.24%	17.79%	21.32%	20.45%
PCL	14.93%	9.16%	5.95%	7.54%

PD	-6.16%	-1.94%	1.71%	-1.20%
PEP	29.16%	24.03%	15.21%	15.54%
PG	16.81%	9.15%	10.93%	10.05%
PGN	1.71%	6.27%	6.54%	4.67%
PLL	13.51%	8.90%	4.68%	6.71%
S	21.11%	12.60%	8.37%	8.17%
SBC	20.21%	14.99%	15.64%	11.16%
SHW	9.67%	14.10%	13.29%	14.30%
SLB	16.44%	21.49%	20.77%	19.26%
SO	14.05%	12.10%	13.71%	12.79%
T	1.55%	3.31%	0.33%	0.79%
VZ	19.44%	19.95%	19.07%	15.15%
WFC	17.67%	16.09%	13.74%	12.98%
XOM	31.02%	14.95%	13.51%	14.12%

En esta ocasión vemos que el gran número de frecuencias favorables, o sea, una buena respuesta de las acciones a la aplicación de la técnica, se traduce en rentabilidades promedio anuales con valores muy interesantes, en general cercanas a un 20%. Podemos apreciar, como habíamos mencionado anteriormente, que a pesar de las frecuencias favorables, y considerando sólo estos resultados, las rentabilidades difieren considerablemente entre un período de aplicación y otro.

TABLA N°14:   DESVIACIÓNES ESTANDAR DE LAS ACCIONES SELECCIONADAS.

ACCION	D.E. (5)	D.E. (10)	D.E. (15)	D.E. (20)
ADP	16.15%	14.04%	22.00%	17.75%
AMAT	36.67%	51.38%	42.68%	37.66%
AMR	29.41%	30.58%	27.51%	27.39%
APC	22.41%	15.43%	17.66%	18.44%
AT	12.04%	10.58%	10.34%	10.91%
BA	25.87%	22.63%	19.24%	18.22%
BLS	24.12%	13.82%	14.80%	16.25%
BMET	44.51%	31.34%	27.84%	24.23%
BUD	19.44%	16.34%	10.72%	10.00%
C	34.54%	26.25%	22.49%	23.00%
CAT	15.03%	15.91%	17.61%	17.58%
CD	30.71%	32.43%	30.77%	30.84%
CMCSK	37.34%	31.29%	34.57%	23.81%
COP	10.44%	8.54%	10.05%	13.45%
COST	26.66%	30.23%	28.14%	25.90%
CSC	30.68%	30.50%	27.55%	24.78%
CTAS	26.40%	17.32%	19.90%	18.99%
CTL	18.08%	24.47%	20.81%	16.61%

CUM	20.78%	16.82%	16.06%	19.57%
CVX	16.00%	12.69%	12.29%	12.57%
CZN	16.40%	11.70%	12.41%	16.00%
DD	20.57%	19.34%	14.46%	15.17%
DG	36.22%	30.69%	29.03%	23.90%
EK	24.27%	24.35%	26.02%	24.60%
F	26.83%	22.47%	21.59%	22.47%
HMA	49.28%	25.81%	29.41%	32.31%
HON	22.34%	20.54%	19.34%	20.42%
HPQ	21.79%	23.52%	18.95%	20.85%
JNJ	16.16%	11.31%	17.58%	16.79%
KMB	15.10%	15.30%	12.77%	11.45%
KR	23.30%	25.61%	23.32%	24.98%
LMT	30.12%	23.30%	26.50%	25.46%
MCD	72.39%	14.00%	11.79%	10.15%
MMM	13.08%	14.93%	15.56%	16.97%
MO	18.19%	20.37%	23.28%	22.00%
MOLX	25.34%	24.27%	19.13%	23.69%
NTRS	36.48%	39.01%	34.44%	32.47%
ODP	27.78%	26.44%	25.51%	34.26%
ORCL	59.39%	74.81%	48.74%	48.36%
PBI	18.33%	14.70%	17.92%	14.70%
PCAR	31.73%	23.04%	20.76%	23.39%
PCL	12.81%	9.17%	10.82%	9.85%
PD	20.15%	17.83%	14.93%	10.95%
PEP	16.25%	18.14%	14.32%	14.56%
PG	17.83%	19.65%	17.23%	15.33%
PGN	10.10%	12.73%	13.23%	11.31%
PLL	17.20%	14.73%	13.67%	14.66%
S	26.10%	23.09%	19.24%	21.75%
SBC	16.82%	13.08%	15.75%	12.29%
SHW	19.87%	20.01%	19.82%	21.75%
SLB	24.27%	21.52%	22.69%	24.84%
SO	11.05%	12.73%	11.27%	9.54%
T	22.20%	23.11%	22.38%	22.78%
VZ	19.16%	18.52%	18.19%	13.64%
WFC	16.58%	11.96%	16.34%	12.45%
XOM	19.16%	9.90%	10.15%	12.92%

Al ir calculando nuevos indicadores, en este caso la desviación estándar, podemos ir depurando cada vez más el análisis. Inicialmente encontramos acciones como MOLX, que por frecuencia se presenta siempre como favorable, pero al revisar su rentabilidad nos damos cuenta que esta cae a medida que aumenta el plazo de aplicación del criterio, y para

las desviaciones estándar, nos damos cuenta que las mayores acompañan, como era de esperar, a los más altos retornos.

TABLA N°15: **EXCEDENTES DE RENTABILIDAD PARA LAS ACCIONES SELECCIONADAS.**

ACCION	EXCED (5)	EXCED (10)	EXCED (15)	EXCED (20)
ADP	2.56%	1.00%	1.73%	-2.68%
AMAT	-18.59%	-1.68%	-17.81%	-25.70%
AMR	11.20%	14.60%	12.46%	13.03%
APC	-8.24%	-7.04%	-1.99%	1.67%
AT	0.52%	-2.65%	-8.88%	-7.09%
BA	0.24%	-7.65%	-8.80%	-4.07%
BLS	16.95%	7.20%	4.00%	5.36%
BMET	35.29%	17.86%	7.01%	1.57%
BUD	9.13%	6.06%	-1.94%	-5.36%
C	-0.55%	-12.63%	-13.77%	-14.56%
CAT	-8.71%	-3.17%	-2.19%	-1.00%
CD	4.77%	2.38%	-4.30%	-4.93%
CMCSK	6.53%	4.77%	9.59%	-13.57%
COP	-3.04%	-4.76%	-0.87%	0.17%
COST	-2.12%	10.38%	-0.30%	-3.97%
CSC	-0.84%	3.64%	-8.44%	-12.50%
CTAS	13.89%	6.38%	3.18%	-7.66%
CTL	-4.44%	-3.58%	-3.16%	-3.68%
CUM	-3.29%	-5.03%	-8.77%	-1.43%
CVX	-0.97%	5.12%	2.63%	5.36%
CZN	10.93%	1.10%	-7.66%	-5.28%
DD	4.08%	1.00%	0.65%	-3.17%
DG	-13.83%	-11.46%	-6.85%	-3.03%
EK	-3.02%	3.30%	13.67%	8.99%
F	4.57%	2.23%	1.25%	4.83%
HMA	-10.51%	-11.31%	-10.84%	-10.92%
HON	0.51%	-0.96%	-1.07%	2.74%
HPQ	5.80%	3.08%	-2.50%	-3.54%
JNJ	-4.88%	-8.95%	-1.95%	-2.69%
KMB	3.85%	-3.09%	-10.32%	-12.72%
KR	4.00%	1.79%	-2.13%	0.46%
LMT	-0.28%	-8.23%	-12.98%	-10.80%
MCD	2.54%	0.60%	0.37%	-1.39%
MMM	6.79%	2.22%	-1.20%	-0.32%
MO	-3.47%	-12.47%	-11.36%	-10.86%
MOLX	17.02%	12.35%	-0.21%	4.73%
NTRS	7.24%	1.55%	-2.49%	-3.81%
ODP	-12.02%	-13.43%	-10.02%	-6.44%

ORCL	-6.14%	-18.08%	-35.40%	-32.58%
PBI	7.85%	-3.52%	-3.45%	-3.54%
PCAR	14.09%	0.66%	4.20%	3.33%
PCL	-2.48%	-8.19%	-11.34%	-9.68%
PD	-8.15%	-3.94%	-0.31%	-3.25%
PEP	16.54%	11.39%	2.55%	2.87%
PG	-0.26%	-7.95%	-6.21%	-7.13%
PGN	-10.75%	-6.14%	-5.82%	-7.63%
PLL	8.52%	3.88%	-0.37%	1.63%
S	2.97%	-5.39%	-9.45%	-9.48%
SBC	7.20%	2.04%	2.76%	-1.66%
SHW	-0.49%	3.69%	3.17%	4.22%
SLB	3.04%	8.06%	7.30%	5.75%
SO	-2.04%	-3.96%	-2.33%	-3.22%
T	4.32%	6.19%	3.30%	3.84%
VZ	7.60%	8.16%	7.34%	3.50%
WFC	-1.74%	-3.27%	-5.56%	-6.27%
XOM	19.49%	3.40%	1.95%	2.54%

En este caso el mayor excedente (35.01) se observó en la acción BMET, en un período de 5 días y con una frecuencia de 23.04. Por el contrario, el peor resultado lo vemos en HMA al aplicar el criterio a 20 días, con un excedente negativo de −11.29 y presentando una frecuencia de 48.98.

En general, ahora que conocemos todos los indicadores importantes el análisis puede ser mucho más especifico y conociendo los excedentes que se entregan para cada acción, se puede elegir considerando éste valor y su relación con la desviación estándar.

En la tabla N°16 se realiza el análisis general.

TABLA N°16:   ANALISIS GENERAL

%R	DIAS	N° ACCIONES	PROM. EXCED	PROM D.E.	PROM S/NEG	ACC POS
	5	39	5.70%	27.73%	8.52%	29
	10	30	4.34%	24.33%	5.66%	26
	15	30	1.26%	21.14%	5.31%	16
	20	28	1.19%	21.79%	4.15%	18

En este caso, el mayor promedio de excedente se encuentra al aplicar el criterio con un plazo de 5 días, situación que se mantiene al eliminar las acciones con excedentes negativos. Nuevamente, la desviación estándar que acompaña a estos resultados es la mayor de las observadas.

6.2.2.- DATOS SEMANALES:

TABLA N°17:   **SELECCIÓN DE ACCIONES POR FRECUENCIA.**

ACCION	FREC (5)	FREC (10)	FREC (15)	FREC (20)
AMR	40.22%	47.83%	40.48%	37.33%
APC	31.18%	29.13%	41.10%	37.78%
BA	44.52%	44.13%	48.35%	52.00%
BC	73.12%	61.52%	62.42%	40.22%
BLS	55.70%	50.22%	49.89%	43.56%
CD	63.23%	50.43%	45.05%	40.89%
CMCSK	55.48%	49.78%	52.97%	53.56%
CTL	43.23%	40.87%	44.18%	45.78%
CUM	50.11%	47.17%	64.40%	59.33%
CVX	46.67%	50.43%	49.67%	46.97%
CZN	33.98%	35.87%	34.73%	32.67%
DD	46.45%	47.61%	63.74%	58.44%
DG	38.92%	48.70%	52.53%	57.56%
EK	31.18%	38.48%	56.04%	52.89%
F	41.29%	42.61%	35.60%	46.44%
HD	52.04%	43.70%	50.77%	60.22%
JPM	56.56%	54.13%	47.03%	46.67%
KMB	55.48%	49.78%	54.29%	51.33%
KO	50.54%	47.38%	55.16%	52.44%
MCD	52.26%	47.61%	51.43%	46.44%
MOLX	36.56%	62.17%	35.93%	52.67%
ODP	56.99%	42.61%	40.66%	47.56%
OXY	61.29%	48.91%	48.57%	40.44%
PD	51.18%	40.87%	32.75%	35.56%
PEP	54.41%	40.00%	50.55%	46.67%
PLL	36.77%	31.52%	40.22%	35.56%

S	71.40%	48.26%	46.81%	39.11%
SBC	47.31%	48.48%	53.41%	57.33%
SHW	48.17%	51.52%	37.36%	42.89%
SLB	40.86%	42.17%	63.08%	57.11%
T	36.77%	37.83%	46.81%	50.67%
WMI	65.38%	53.48%	44.84%	45.78%
XOM	51.61%	45.43%	58.46%	55.11%

Al comparar los resultados de esta sección con los obtenidos para igual técnica con datos semanales, encontramos resultados muy similares a los del oscilador RSI, es decir, el número de acciones seleccionadas por frecuencia disminuye considerablemente entre ambos tipos de datos.

Nuevamente las diferencias entre acciones y plazos al aplicar las técnicas son significativas, ya que algunas se seleccionan sólo en un plazo y en otros tienen frecuencias muy desfavorables, mientras que otras aparecen como inferiores al 50% en más de una oportunidad.

TABLA N°18:   RENTABILIDAD PROMEDIO ANUAL DE LA TÉCNICA PARA LAS ACCIONES SELECCIONADAS.

ACCION	R.P.A. (5)	R.P.A. (10)	R.P.A. (15)	R.P.A. (20)
AMR	14.00%	-2.05%	-0.43%	5.49%
APC	24.88%	29.05%	16.67%	18.89%
BA	13.17%	15.61%	10.70%	5.30%
BC	-2.32%	1.59%	0.89%	13.49%
BLS	5.95%	9.10%	8.31%	11.30%
CD	-0.67%	7.18%	11.67%	14.14%
CMCSK	13.75%	12.90%	8.81%	7.20%
CTL	8.98%	8.58%	5.83%	4.99%
CUM	1.86%	3.04%	-3.02%	-5.11%
CVX	13.58%	13.06%	12.28%	12.99%
CZN	1.26%	2.12%	0.39%	-1.30%

DD	13.70%	13.35%	5.22%	7.53%
DG	30.26%	23.30%	22.33%	9.62%
EK	11.74%	6.82%	2.70%	4.20%
F	6.42%	8.42%	8.37%	4.92%
HD	15.56%	17.97%	17.07%	10.87%
JPM	7.66%	7.22%	13.32%	12.38%
KMB	9.27%	9.71%	10.02%	12.55%
KO	10.32%	13.50%	7.34%	6.49%
MCD	11.88%	12.74%	7.22%	7.73%
MOLX	22.79%	4.88%	8.11%	6.30%
ODP	2.42%	11.58%	13.39%	4.55%
OXY	6.45%	9.15%	11.17%	14.83%
PD	4.38%	10.20%	10.35%	9.27%
PEP	9.33%	15.25%	6.91%	9.30%
PLL	9.54%	13.39%	7.46%	12.54%
S	-1.17%	6.91%	7.04%	12.36%
SBC	13.97%	10.80%	10.58%	5.14%
SHW	13.25%	8.59%	14.56%	12.79%
SLB	15.98%	12.08%	2.75%	2.64%
T	2.86%	-4.39%	-8.67%	-8.70%
WMI	4.71%	11.00%	19.85%	18.38%
XOM	12.02%	12.61%	7.08%	7.37%

Al comparar las diferencias entre las rentabilidades promedio entregadas por cada acción en los distintos plazos, vemos la relevancia de aplicar uno u otro, por ejemplo AMR que por frecuencia es elegida en todos los períodos, al analizarla por su R.P.A. pasa de promedios positivos cercanos a 15% a tener pérdidas en promedio anual. Como es de esperar en la mayoría de los casos las mejores frecuencias se relacionan con los promedios más altos.

TABLA N°19:   DESVIACIONES ESTANDAR DE LAS ACCIONES SELECCIONADAS.

ACCION	D.E (5)	D.E. (10)	D.E. (15)	D.E. (20)
AMR	28.69%	19.10%	22.02%	25.63%
APC	17.86%	26.76%	16.46%	18.95%
BA	18.63%	20.64%	20.86%	15.72%
BC	22.93%	22.61%	18.22%	23.60%
BLS	10.58%	12.21%	12.96%	14.63%
CD	27.73%	26.61%	30.03%	33.03%
CMCSK	20.12%	19.75%	16.94%	18.14%
CTL	12.85%	8.54%	11.96%	11.00%
CUM	15.87%	17.94%	14.83%	16.88%
CVX	9.85%	9.49%	8.94%	7.68%

CZN	15.26%	13.75%	14.28%	13.45%
DD	10.68%	13.19%	14.56%	14.35%
DG	19.08%	17.61%	22.27%	13.89%
EK	14.42%	15.94%	11.00%	11.87%
F	17.03%	19.80%	21.05%	16.55%
HD	18.79%	17.64%	17.75%	16.64%
JPM	17.55%	12.81%	16.43%	15.75%
KMB	9.59%	12.37%	12.81%	11.62%
KO	12.12%	14.07%	11.00%	11.66%
MCD	8.66%	8.31%	7.00%	11.14%
MOLX	20.98%	13.34%	14.59%	14.04%
ODP	25.44%	34.41%	39.55%	29.85%
OXY	12.04%	17.52%	19.97%	17.69%
PD	20.47%	23.17%	23.00%	20.47%
PEP	13.08%	13.04%	11.58%	12.81%
PLL	14.73%	20.42%	10.82%	16.31%
S	15.33%	17.18%	17.32%	20.57%
SBC	11.92%	10.49%	14.21%	12.25%
SHW	18.52%	15.91%	17.06%	14.11%
SLB	23.04%	15.00%	16.85%	13.15%
T	24.64%	17.35%	18.57%	20.25%
WMI	21.38%	23.41%	19.05%	28.39%
XOM	12.53%	8.77%	9.17%	8.60%

Seguimos observando que existe un claro patrón que relaciona las frecuencias favorables con rentabilidades altas y desviaciones estándar mayores. En este caso particular podemos apreciar que salvo algunas excepciones las desviaciones se encuentran dentro de un rango similar para una acción determinada en los distintos plazos analizados.

TABLA N°20:   EXCEDENTES DE RENTABILIDAD PARA LAS ACCIONES SELECCIONADAS.

ACCION	EXCED (5)	EXCED (10)	EXCED (15)	EXCED (20)
AMR	13.32%	-2.60%	-0.89%	5.08%
APC	8.20%	12.78%	0.88%	3.49%
BA	-1.02%	1.32%	-3.67%	-9.07%
BC	-14.27%	-10.30%	-10.92%	1.69%
BLS	-8.28%	-5.09%	-5.84%	-2.87%
CD	-14.92%	-5.54%	-0.04%	3.25%
CMCSK	-13.52%	-13.33%	-16.31%	-17.18%
CTL	-7.31%	-7.71%	-10.61%	-11.71%
CUM	-3.74%	-2.35%	-8.01%	-9.77%
CVX	-0.02%	-0.31%	-0.81%	0.09%

CZN	1.72%	2.94%	1.56%	0.24%
DD	1.58%	1.12%	-7.08%	-4.88%
DG	3.90%	-2.19%	-2.61%	-14.63%
EK	8.20%	3.69%	0.16%	2.17%
F	1.15%	3.65%	4.18%	1.25%
HD	-7.23%	-5.13%	-6.36%	-13.02%
JPM	-11.19%	-11.38%	-5.37%	-6.40%
KMB	-4.57%	-4.30%	-4.24%	-2.01%
KO	-4.16%	-1.04%	-7.30%	-8.25%
MCD	-0.25%	0.72%	-4.70%	-4.14%
MOLX	6.43%	-11.30%	-7.93%	-9.57%
ODP	-13.39%	-3.60%	-1.38%	-9.79%
OXY	-3.69%	-0.84%	1.19%	4.79%
PD	-7.75%	8.01%	8.16%	7.12%
PEP	-3.47%	2.35%	-6.16%	-3.95%
PLL	4.37%	8.11%	2.06%	7.03%
S	-19.07%	-10.21%	-9.31%	-3.38%
SBC	0.98%	-1.99%	-2.02%	-7.34%
SHW	3.07%	-1.40%	4.69%	2.93%
SLB	2.34%	-1.73%	-11.20%	-11.44%
T	5.82%	-0.98%	-4.96%	-4.85%
WMI	-13.55%	-7.41%	1.01%	-0.87%
XOM	0.30%	0.81%	-4.77%	-4.58%

Podemos observar la reiteración de un gran número de acciones en los distintos períodos de tiempo, como es el caso de AMR, APC, CTL, CZN etc.; pero es importante notar que los excedentes de una acción frente a los diferentes plazos de cálculo varían en forma considerable, como es el caso de AMR, la cual presenta un buen excedente (13.32%) para 5 semanas, el que disminuye considerablemente (-2.53) para 10 semanas. LLama la atención el gran número de excedentes negativos resultantes de aplicar el criterio, a pesar de que todas las acciones presentan frecuencias favorables, esto se da en el 47.5% de los casos.

TABLA N°21:   ANALISIS GENERAL.

%R	SEMANAS	N° ACCIONES	PROM. EXCED	PROM D.E.	PROM S/NEG	ACC POS
	5	18	3.81%	18%	6.11%	13
	10	26	-0.47%	17.86%	4.36%	11
	15	19	-1.43%	19.89%	2.97%	8
	20	19	-0.32%	19.69%	3.36%	11

Se observa que el plazo de aplicación de la técnica que mejor rentabilidad ofrece, es el de 5 semanas, situación que no se altera al eliminar los excedentes negativos. Es importante destacar que la desviación estándar que acompaña a éstos resultados no es la mayor. Esta estrategia domina claramente a la de 15 y 20 semanas, ya que ofrece mejor rentabilidad con menor estándar.

6.3.- %K:

Las tablas que se presentan a continuación deben interpretarse de la forma mencionada anteriormente. El análisis para el total de la muestra se encuentra en la sección Anexos.

6.3.1.- DATOS DIARIOS:

TABLA N°22:   SELECCIÓN DE ACCIONES POR FRECUENCIA.

ACCION	FREC (5)	FREC (10)	FREC (15)	FREC (20)
ADP	42.20%	54.26%	56.86%	63.87%
AMAT	48.46%	43.97%	60.54%	58.46%
AMR	32.41%	20.46%	54.10%	39.50%
APC	61.62%	52.39%	46.12%	39.30%
AT	43.67%	53.40%	66.81%	65.50%
BA	47.60%	65.30%	64.33%	54.44%
BK	49.40%	51.41%	61.63%	60.44%
BLS	17.20%	31.11%	41.81%	38.04%
BMET	22.40%	21.65%	35.61%	40.21%
BUD	30.26%	34.53%	53.30%	58.17%
C	47.44%	55.99%	63.82%	61.30%
CAT	60.63%	52.05%	51.73%	49.31%
CD	49.49%	39.35%	48.69%	54.88%
CMCSK	33.51%	36.24%	35.52%	63.20%
COP	64.14%	62.73%	48.74%	47.51%
COST	64.55%	40.79%	59.57%	58.94%
CSC	54.72%	45.16%	64.92%	67.38%
CTAS	28.48%	37.21%	43.27%	67.15%
CTL	45.43%	52.70%	40.72%	39.92%

CUM	50.66%	55.55%	52.79%	40.66%
CVX	59.99%	28.65%	40.14%	28.33%
CZN	24.70%	33.33%	56.76%	53.95%
DD	49.51%	48.08%	48.14%	54.95%
DG	70.05%	67.55%	48.03%	48.58%
EK	61.27%	36.65%	12.10%	30.73%
EP	59.79%	61.69%	55.18%	48.87%
F	35.58%	40.26%	40.83%	33.56%
HD	56.59%	58.00%	48.12%	54.33%
HMA	63.34%	60.12%	61.59%	47.65%
HON	45.77%	54.31%	52.35%	46.12%
HPQ	49.80%	48.76%	56.18%	54.22%
JNJ	53.02%	68.48%	49.31%	48.31%
JPM	55.16%	47.59%	62.37%	61.08%
KMB	34.67%	50.04%	76.83%	79.48%
KR	45.90%	49.67%	54.24%	50.91%
LMT	45.52%	60.21%	64.11%	65.94%
MCD	45.99%	49.67%	49.73%	56.95%
MMM	28.44%	42.78%	55.58%	50.82%
MO	44.86%	68.88%	68.41%	66.65%
MOLX	24.56%	39.68%	44.11%	43.05%
NTRS	49.45%	39.96%	47.10%	47.82%
ODP	66.39%	63.40%	47.76%	56.13%
ORCL	46.30%	61.33%	60.10%	60.14%
PBI	39.15%	40.96%	51.55%	49.22%
PCAR	32.42%	26.73%	39.52%	36.94%
PD	77.34%	63.62%	49.60%	53.66%
PEP	18.56%	22.85%	35.16%	33.47%
PFE	49.87%	57.49%	62.27%	61.78%
PG	49.38%	73.62%	64.97%	63.65%
PLL	32.85%	34.25%	43.76%	36.97%
S	44.13%	55.38%	57.71%	59.80%
SBC	31.22%	40.74%	38.44%	47.00%
SHW	46.03%	44.72%	38.75%	38.93%
SLB	40.10%	34.26%	32.48%	30.73%
SO	48.04%	61.05%	50.20%	53.02%
T	33.92%	36.87%	36.07%	34.55%
VZ	36.07%	21.83%	27.99%	34.71%
WFC	49.25%	51.22%	64.18%	61.63%
XOM	10.67%	37.69%	42.43%	43.50%
XRX	52.80%	43.55%	49.58%	55.60%

El número de acciones seleccionadas por frecuencia es elevado, repitiéndose acciones que en criterios anteriores también fueron escogidas, existiendo excepciones tales como XRX,

la cual hace su primera aparición. Se sigue obsevando la importancia de la determinación de los plazos al momento de observar frecuencias favorables.

TABLA N°23: **RENTABILIDAD PROMEDIO ANUAL DE LA TÉCNICA PARA LAS ACCIONES SELECCIONADAS.**

ACCION	R.P.A. (5)	R.P.A. (10)	R.P.A. (15)	R.P.A. (20)
ADP	21.00%	19.84%	20.43%	16.23%
AMAT	39.87%	54.65%	36.78%	29.87%
AMR	11.67%	15.12%	13.22%	13.37%
APC	8.38%	9.51%	14.51%	18.12%
AT	14.97%	11.73%	5.46%	7.18%
BA	14.11%	6.21%	5.16%	9.92%
BK	25.39%	24.36%	20.55%	20.09%
BLS	30.91%	21.11%	17.93%	19.31%
BMET	59.15%	42.05%	31.52%	26.26%
BUD	28.52%	25.24%	17.35%	14.00%
C	31.38%	20.13%	19.13%	18.15%
CAT	7.97%	13.96%	15.05%	16.82%
CD	19.09%	16.81%	9.78%	7.66%
CMCSK	33.72%	31.68%	35.18%	12.60%
COP	9.20%	7.72%	11.56%	12.49%
COST	18.98%	33.21%	22.60%	18.96%
CSC	19.09%	23.28%	10.67%	7.18%
CTAS	35.61%	28.47%	25.13%	14.49%
CTL	11.27%	12.69%	13.10%	12.59%
CUM	1.94%	0.55%	-3.21%	4.05%
CVX	12.53%	18.51%	16.11%	18.81%
CZN	10.05%	0.54%	-7.93%	-5.64%
DD	15.90%	12.61%	12.56%	8.57%
DG	11.71%	15.12%	19.24%	22.87%
EK	0.62%	6.85%	17.09%	12.34%
EP	13.26%	13.17%	15.49%	15.00%

F	9.80%	7.19%	6.39%	9.90%
HD	17.39%	11.90%	21.36%	11.60%
HMA	25.62%	24.29%	25.09%	25.93%
HON	15.01%	13.00%	12.87%	16.66%
HPQ	23.20%	20.58%	14.97%	13.94%
JNJ	18.80%	14.68%	21.74%	21.11%
JPM	14.78%	13.64%	5.25%	4.46%
KMB	17.36%	10.51%	3.35%	1.07%
KR	28.78%	26.49%	22.12%	24.04%
LMT	19.72%	11.53%	6.80%	8.94%
MCD	13.94%	12.17%	12.30%	10.54%
MMM	19.41%	15.35%	11.96%	12.85%
MO	12.13%	3.28%	5.62%	5.68%
MOLX	32.82%	28.48%	15.98%	20.77%
NTRS	23.25%	27.61%	23.64%	22.36%
ODP	1.86%	2.88%	5.07%	8.65%
ORCL	59.83%	46.77%	32.72%	32.42%
PBI	22.16%	18.71%	10.52%	11.03%
PCAR	31.72%	18.67%	21.22%	20.05%
PD	-6.13%	-1.96%	1.71%	-1.20%
PEP	29.01%	23.92%	15.14%	15.47%
PFE	29.23%	18.60%	16.39%	15.11%
PG	17.11%	9.11%	10.88%	10.01%
PLL	13.34%	8.85%	5.24%	6.67%
S	21.02%	12.55%	8.35%	8.13%
SBC	20.11%	14.92%	15.57%	11.11%
SHW	9.64%	14.92%	13.82%	13.92%
SLB	16.37%	21.40%	20.68%	19.97%
SO	13.87%	12.05%	13.65%	12.73%
T	1.56%	3.30%	0.34%	0.80%
VZ	19.08%	20.30%	18.99%	15.07%
WFC	17.51%	16.08%	13.10%	12.23%
XOM	30.71%	14.92%	13.46%	14.70%
XRX	4.47%	6.24%	5.61%	1.03%

En esta tabla nuevamente vemos como las rentabilidades cambian en forma considerable al variar los períodos, pero también podemos notar que hay casos en los que a pesar de no tener todos los períodos frecuencias favorables, la rentabilidades promedio se mueven dentro de rangos relativamente estrechos.

TABLA N°24:   DESVIACIONES ESTANDAR DE LAS ACCIONES SELECCIONADAS.

ACCION	D.E. (5)	D.E. (10)	D.E. (15)	D.E. (20)
ADP	16.46%	14.00%	21.79%	17.72%
AMAT	39.27%	50.93%	40.99%	37.74%
AMR	29.43%	30.55%	27.50%	27.18%
APC	22.36%	15.39%	17.64%	18.38%
AT	12.04%	10.54%	10.30%	10.86%
BA	25.63%	22.58%	19.18%	18.22%
BK	30.53%	25.16%	30.12%	29.33%
BLS	24.00%	13.86%	14.80%	16.25%
BMET	44.27%	31.26%	27.75%	24.17%
BUD	19.31%	16.28%	10.68%	10.00%
C	34.38%	26.32%	21.49%	23.00%
CAT	14.56%	15.78%	17.55%	17.55%
CD	30.95%	32.39%	30.69%	30.68%
CMCSK	37.24%	31.13%	35.34%	24.37%
COP	10.58%	8.54%	10.05%	13.42%
COST	24.92%	30.17%	28.05%	25.85%
CSC	30.74%	30.38%	27.42%	24.72%
CTAS	26.25%	17.23%	19.80%	18.92%
CTL	17.78%	24.41%	20.76%	16.70%
CUM	20.71%	16.79%	16.00%	19.52%
CVX	15.97%	12.65%	12.21%	12.45%
CZN	16.61%	11.70%	12.12%	14.07%
DD	20.52%	19.00%	14.42%	15.23%
DG	36.15%	31.00%	29.07%	23.92%
EK	24.19%	24.27%	26.06%	24.52%
EP	31.40%	24.37%	25.65%	16.70%
F	26.46%	22.27%	21.54%	22.43%
HD	24.78%	21.98%	20.00%	15.26%
HMA	49.21%	25.77%	29.26%	32.85%
HON	22.63%	20.49%	19.31%	20.42%
HPQ	21.77%	23.45%	18.87%	20.76%
JNJ	16.03%	11.31%	17.52%	16.73%
JPM	18.19%	18.47%	15.56%	15.33%
KMB	15.07%	15.26%	12.73%	11.40%
KR	23.47%	25.38%	23.28%	24.04%
LMT	29.93%	23.22%	26.42%	25.38%
MCD	22.76%	13.89%	11.79%	10.15%
MMM	12.57%	14.90%	15.52%	16.91%
MO	17.89%	19.87%	23.09%	21.98%
MOLX	25.24%	24.17%	19.13%	23.81%
NTRS	36.40%	38.94%	34.38%	32.40%
ODP	25.87%	26.55%	25.53%	34.12%
ORCL	58.57%	74.92%	50.93%	49.26%
PBI	17.94%	18.41%	17.58%	14.63%
PCAR	32.23%	22.74%	20.71%	23.58%
PD	20.15%	17.80%	14.93%	10.95%

PEP	16.22%	18.11%	14.28%	14.53%
PFE	24.10%	16.46%	14.73%	13.08%
PG	17.75%	19.60%	17.20%	15.30%
PLL	17.18%	14.73%	13.75%	14.66%
S	26.04%	23.04%	19.21%	21.68%
SBC	16.82%	13.08%	15.72%	12.29%
SHW	19.82%	20.52%	19.62%	21.54%
SLB	24.21%	21.49%	22.65%	24.80%
SO	11.09%	12.69%	11.22%	9.49%
T	22.18%	23.11%	22.36%	22.74%
VZ	18.92%	18.44%	18.14%	13.60%
WFC	16.55%	11.92%	16.19%	12.41%
XOM	19.26%	9.95%	10.15%	12.88%
XRX	29.88%	27.53%	27.31%	30.97%

Las desviaciones estándar que hemos analizados, en términos generales, no presentan grandes variaciones, esto es, valores relativamente contenidos dentro de una banda no muy ancha para una misma acción en los distintos plazos analizados, pero sin olvidar que en la gran mayoría de los casos las más altas son las que entregan los mayores retornos.

TABLA N°25:   EXCEDENTES DE RENTABILIDAD PARA LAS ACCIONES SELECCIONADAS.

ACCION	D.E. (5)	D.E. (10)	D.E. (15)	D.E. (20)
ADP	2.08%	0.89%	0.45%	-2.77%
AMAT	-17.23%	-2.17%	-19.81%	-26.48%
AMR	11.05%	14.53%	12.65%	12.82%
APC	-8.29%	-7.09%	-2.05%	1.59%
AT	0.46%	-2.70%	-8.90%	-7.11%
BA	0.09%	-7.83%	-8.89%	-4.13%
BK	-2.54%	-3.01%	-6.81%	-7.26%
BLS	16.84%	7.04%	3.87%	5.26%
BMET	34.81%	17.53%	6.84%	1.42%
BUD	9.26%	5.92%	-2.03%	-5.44%
C	-1.96%	-13.02%	-13.84%	-14.62%
CAT	-9.60%	-3.50%	-2.33%	-0.48%
CD	4.29%	2.34%	-4.43%	-6.26%
CMCSK	6.39%	4.49%	8.11%	-14.36%
COP	-3.32%	-4.78%	-0.92%	0.02%
COST	-4.02%	10.21%	-0.42%	-4.07%
CSC	-0.71%	3.52%	-9.06%	-12.52%

CTAS	13.53%	6.07%	2.98%	-7.72%
CTL	-4.83%	-3.38%	-3.40%	-3.45%
CUM	-3.68%	-5.03%	-8.76%	-1.46%
CVX	-1.00%	5.03%	2.66%	5.36%
CZN	10.36%	0.91%	-7.48%	-5.12%
DD	3.99%	0.68%	0.61%	-3.39%
DG	-14.84%	-11.26%	-6.99%	-3.21%
EK	-3.04%	3.26%	13.59%	8.92%
EP	-3.92%	-3.94%	-1.57%	-2.03%
F	4.55%	1.98%	1.23%	4.80%
HD	-4.89%	-10.42%	-1.02%	-10.86%
HMA	-10.04%	-11.32%	-10.48%	-9.62%
HON	0.92%	-1.03%	-1.12%	2.72%
HPQ	5.54%	2.95%	-2.66%	-3.70%
JNJ	-4.80%	-9.02%	-2.06%	-2.80%
JPM	-3.94%	-5.06%	-13.40%	-14.12%
KMB	3.76%	-3.14%	-10.34%	-12.66%
KR	4.23%	2.05%	-2.22%	-0.20%
LMT	-0.12%	-8.28%	-12.99%	-10.82%
MCD	1.91%	0.16%	0.32%	-1.43%
MMM	6.21%	2.15%	-1.25%	-0.37%
MO	-4.07%	-13.02%	-10.84%	-10.92%
MOLX	16.52%	12.22%	-0.25%	4.58%
NTRS	-2.91%	1.40%	-2.62%	-3.94%
ODP	-13.92%	-12.77%	-10.49%	-6.83%
ORCL	-5.59%	-18.41%	-32.27%	-32.35%
PBI	7.56%	4.12%	-4.08%	-3.58%
PCAR	14.57%	1.54%	4.10%	2.93%
PD	-8.12%	-3.96%	-0.31%	-3.25%
PEP	16.39%	11.28%	2.48%	2.80%
PFE	-0.73%	-11.47%	-13.79%	-15.18%
PG	0.04%	-7.99%	-6.26%	-7.17%
PLL	8.35%	3.83%	0.19%	1.59%
S	2.88%	-5.44%	-9.47%	-9.52%
SBC	7.10%	1.97%	2.69%	-1.71%
SHW	-0.52%	4.51%	3.70%	3.84%
SLB	2.97%	7.97%	7.21%	6.46%
SO	-2.22%	-4.01%	-2.39%	-3.28%
T	4.33%	6.18%	3.31%	3.85%
VZ	7.24%	8.51%	7.26%	3.41%
WFC	0.10%	-3.28%	-6.20%	-7.02%
XOM	19.18%	3.37%	1.90%	3.12%
XRX	-2.48%	-0.74%	-1.39%	-6.01%

Al igual que en el criterio anterior, muchas acciones presentan frecuencias favorables, pero muchas menos son las que entregan excedentes negativos, a su vez muchas de las acciones se repiten en los diferentes períodos de tiempo, como BLS, BMET, F, MOLX, etc., y al igual que en los otros casos los resultados obtenidos varían considerablente en los períodos de aplicación, por ejemplo, BMET, pasa de un excedente de 34.81% para 5 días a uno de 1.42% en 20 días.

TABLA N°26:   ANALISIS GENERAL.

%K	DIAS	N° ACCIONES	PROM. EXCED	PROM D.E.	PROM S/NEG	ACC POS
	5	43	4.76%	25.82%	7.73%	32
	10	33	4.54%	24.04%	5.26%	30
	15	30	1.24%	21.35%	4.06%	18
	20	28	1.54%	20.59%	4.19%	18

En este caso también se observa que el período con mayor rentabilidad (sobre la pasiva), al eliminar los excedentes negativos, sigue siendo el de mayor rentabilidad, este es el caso de la aplicación a 5 días, observándose que lo acompaña la mayor desviación estándar.

Destaca en este caso la aplicación de la técnica a 10 días, donde de una primera selección de 33 acciones, sólo se eliminan por excedente 3 de ellas (aproximadamente un 9%).

6.3.2.- DATOS SEMANALES:

TABLA N°27:   SELECCIÓN DE ACCIONES POR FRECUENCIA.

ACCION	FREC (5)	FREC (10)	FREC (15)	FREC (20)

AMR	40.22%	47.61%	40.88%	37.33%
APC	31.18%	31.30%	41.10%	37.78%
BA	44.52%	44.78%	48.35%	52.00%
BC	73.12%	64.35%	62.42%	40.22%
BLS	55.70%	50.87%	49.89%	43.56%
CD	63.23%	49.35%	45.05%	40.89%
CMCSK	55.48%	49.57%	47.03%	54.44%
CTL	43.23%	45.87%	44.18%	45.78%
CUM	50.11%	48.48%	64.40%	59.33%
CVX	46.67%	50.87%	49.67%	46.89%
CZN	33.98%	35.22%	34.73%	32.67%
DD	46.45%	49.13%	63.74%	58.44%
DG	38.92%	50.22%	52.97%	58.67%
EK	31.18%	40.65%	56.04%	52.89%
F	41.29%	41.96%	35.60%	36.44%
HD	52.04%	44.13%	50.77%	60.22%
JPM	56.56%	55.65%	47.03%	46.67%
KMB	55.48%	49.13%	54.29%	51.33%
KO	50.54%	47.17%	55.16%	52.44%
MCD	52.26%	47.39%	51.65%	46.44%
MOLX	35.48%	61.74%	45.93%	52.89%
ODP	58.06%	43.91%	40.66%	47.56%
OXY	61.29%	51.30%	48.57%	40.44%
PCAR	36.99%	43.48%	50.11%	56.89%
PD	51.18%	41.52%	32.75%	35.56%
PEP	54.62%	41.09%	50.55%	46.67%
PLL	33.55%	33.04%	40.22%	35.56%
PPG	49.03%	59.35%	54.29%	61.56%
S	71.40%	49.35%	46.81%	39.11%
SBC	47.31%	51.09%	53.41%	57.33%
SHW	48.17%	51.30%	37.36%	42.89%
SLB	40.86%	43.04%	63.08%	57.11%
T	36.77%	38.91%	46.81%	50.67%
WMI	68.17%	54.78%	47.25%	45.78%
XOM	53.12%	48.26%	58.46%	55.11%

En éste caso no notamos las diferencias que se daban en los otros criterios cuando cambiábamos de datos diarios a semanales, en éste caso el número de acciones seleccionadas por frecuencia es igualmente alto.

TABLA N°28: **RENTABILIDAD PROMEDIO ANUAL DE LA TÉCNICA PARA LAS ACCIONES SELECCIONADAS.**

ACCION	R.P.A. (5)	R.P.A. (10)	R.P.A. (15)	R.P.A. (20)

AMR	14.00%	-2.05%	-0.43%	5.49%
APC	24.88%	29.05%	16.67%	18.89%
BA	13.17%	15.25%	10.70%	5.30%
BC	-2.32%	1.59%	0.89%	13.49%
BLS	5.95%	9.10%	8.31%	11.30%
CD	-0.67%	7.18%	11.67%	14.14%
CMCSK	13.75%	12.68%	10.49%	6.77%
CTL	8.98%	7.82%	5.83%	4.99%
CUM	1.86%	3.04%	-7.02%	-5.11%
CVX	13.58%	13.06%	12.28%	12.99%
CZN	1.26%	2.12%	0.39%	-1.30%
DD	13.70%	13.35%	5.22%	7.53%
DG	30.26%	23.30%	21.51%	8.97%
EK	11.74%	6.82%	2.70%	4.20%
F	6.42%	8.42%	8.37%	4.92%
HD	15.56%	17.97%	17.07%	10.87%
JPM	7.66%	7.22%	13.32%	12.38%
KMB	9.27%	9.71%	10.02%	12.55%
KO	10.32%	13.50%	7.34%	6.49%
MCD	11.88%	12.74%	7.04%	7.73%
MOLX	23.49%	4.88%	8.11%	6.30%
ODP	1.94%	9.95%	13.39%	4.55%
OXY	6.45%	9.15%	11.17%	14.83%
PCAR	16.45%	9.81%	7.22%	5.41%
PD	4.38%	10.20%	10.35%	9.27%
PEP	9.23%	15.14%	6.91%	9.30%
PLL	11.31%	13.39%	7.46%	12.54%
PPG	8.20%	7.77%	11.86%	6.17%
S	-1.17%	6.91%	7.04%	12.36%
SBC	13.97%	10.64%	10.58%	5.14%
SHW	13.25%	8.59%	14.56%	12.79%
SLB	15.98%	12.08%	12.75%	2.64%
T	2.86%	-4.39%	-8.67%	-8.70%
WMI	3.58%	9.29%	17.68%	18.38%
XOM	19.59%	12.61%	7.08%	7.37%

El patrón antes mencionado se sigue cumpliendo aún en el caso de los datos semanales, éste se refiere a que las mayores rentabilidades se asocian a las mejores frecuencias (números azules).

TABLA N°29:   DESVIACIONES ESTANDAR DE LAS ACCCIONES SELECCIONADAS.

ACCION	D.E. (5)	D.E. (10)	D.E. (15)	D.E. (20)

AMR	28.69%	25.20%	22.02%	25.63%
APC	17.86%	26.76%	16.46%	18.95%
BA	18.63%	20.74%	20.86%	15.72%
BC	22.93%	22.61%	18.22%	23.60%
BLS	10.58%	12.21%	12.96%	14.63%
CD	27.73%	26.61%	30.03%	33.03%
CMCSK	20.12%	19.54%	18.03%	18.33%
CTL	12.85%	8.37%	11.96%	11.00%
CUM	15.87%	17.94%	14.83%	16.88%
CVX	9.85%	9.49%	8.94%	7.68%
CZN	15.26%	13.75%	14.28%	13.45%
DD	10.68%	13.19%	14.56%	14.35%
DG	19.08%	17.61%	21.45%	13.67%
EK	14.42%	15.94%	11.00%	11.87%
F	17.03%	19.80%	21.05%	16.55%
HD	18.79%	17.64%	17.75%	16.64%
JPM	17.55%	12.81%	16.43%	15.75%
KMB	9.59%	12.37%	12.81%	11.62%
KO	12.12%	14.07%	11.00%	11.66%
MCD	8.66%	9.80%	6.93%	11.83%
MOLX	20.27%	13.34%	14.59%	14.04%
ODP	26.00%	32.63%	39.55%	29.85%
OXY	12.04%	17.52%	19.97%	17.69%
PCAR	17.15%	17.89%	17.52%	16.73%
PD	20.47%	18.89%	23.00%	20.47%
PEP	13.00%	12.88%	11.58%	12.81%
PLL	15.91%	20.42%	12.08%	16.31%
PPG	17.18%	10.44%	16.25%	14.66%
S	15.33%	17.18%	17.32%	20.57%
SBC	11.92%	10.39%	14.21%	12.25%
SHW	18.52%	15.91%	17.06%	14.11%
SLB	23.04%	15.00%	16.85%	13.15%
T	24.64%	17.35%	18.57%	20.25%
WMI	21.75%	23.49%	28.97%	28.39%
XOM	12.41%	8.77%	9.17%	8.60%

Para este caso siguen manteniéndose los patrones antes señalados, desviaciones mayores para rentabilidades altas y un rango relativamente angosto para la gran mayoría de las desviaciones por acción.

TABLA N°30:   EXCEDENTES DE RENTBILIDAD PARA LAS ACCIONES SELECCIONADAS.

ACCION	EXCED (5)	EXCED (10)	EXCED (15)	EXCED (20)

AMR	13.32%	-2.60%	-0.89%	5.08%
APC	8.20%	12.78%	0.88%	3.49%
BA	-1.02%	0.96%	-3.67%	-9.07%
BC	-14.27%	-10.30%	-10.92%	1.69%
BLS	-8.28%	-5.09%	-5.84%	-2.87%
CD	-14.92%	-5.54%	-0.04%	3.25%
CMCSK	-13.52%	-13.55%	-14.63%	-17.61%
CTL	-7.31%	-8.47%	-10.61%	-11.71%
CUM	-3.74%	-2.35%	-12.01%	-9.77%
CVX	-0.02%	-0.31%	-0.81%	0.09%
CZN	1.72%	2.94%	1.56%	0.24%
DD	1.58%	1.12%	-7.08%	-4.88%
DG	3.90%	-2.19%	-3.43%	-15.28%
EK	8.20%	3.69%	0.16%	2.17%
F	1.15%	3.65%	4.18%	1.25%
HD	-7.23%	-5.13%	-6.36%	-13.02%
JPM	-11.19%	-11.38%	-5.37%	-6.40%
KMB	-4.57%	-4.30%	-4.24%	-2.01%
KO	-4.16%	-1.04%	-7.30%	-8.25%
MCD	-0.25%	0.72%	-4.88%	-4.14%
MOLX	7.13%	-11.30%	-7.93%	-9.57%
ODP	-13.87%	-5.23%	-1.38%	-9.79%
OXY	-3.69%	-0.84%	1.19%	4.79%
PCAR	-0.83%	-7.43%	-10.00%	-11.87%
PD	-7.75%	8.01%	8.16%	7.12%
PEP	-3.57%	2.24%	-6.16%	-3.95%
PLL	6.14%	8.11%	2.06%	7.03%
PPG	-1.59%	-1.92%	2.26%	-3.34%
S	-19.07%	-10.21%	-9.31%	-3.38%
SBC	0.98%	-2.15%	-2.02%	-7.34%
SHW	3.07%	-1.40%	4.69%	2.93%
SLB	2.34%	-1.73%	-1.20%	-11.44%
T	5.82%	-0.98%	-4.96%	-4.85%
WMI	-14.68%	-9.12%	-1.16%	-0.87%
XOM	7.87%	0.81%	-4.77%	-4.58%

Al aplicar la técnica a datos semanales para éste criterio, podemos apreciar una fuerte similitud con lo sucedido para estos mismos datos aplicados al oscilador %R. Nuevamente el número de excedentes negativos es considerablemente alto, éstos corresponden al 48.1% de la totalidad de los casos, además acciones como AMR,APC, CZL y CZN entre otras, presentan frecuencias favorables en todos los períodos de tiempo, observándose además

fuertes variaciones en sus excedentes, como el caso de AMR, donde nuevamente se pasa de un excedente de 13.32% para 5 semanas a uno de –2.6% para 10 semanas.

%K	SEMANAS	N° ACCIONES	PROM. EXCED	PROM D.E.	PROM S/NEG	ACC POS
	5	18	2.93%	18.00%	4.89%	13
	10	24	-0.98%	18.54%	4.09%	11
	15	20	-2.19%	20.44%	3.25%	7
	20	19	-0.32%	19.72%	3.36%	11

TABLA N°31:   ANÁLISIS GENERAL.

Notamos que para datos semanales las mayores rentabilidades se aprecian al aplicar la técnica a 5 semanas, manteniéndose esta situación al momento de eliminar los excedentes negativos. Apreciamos también que la desviación estándar para 5 semanas es la menor, lo que podría explicarse por el hecho de que los otros resultados (10, 15 y 20 semanas), son negativos, ya que estos presentarían oscilaciones mayores.

6.4.- MOMENTUM.

Las siguientes tablas resumen los resulados obtenidos al aplicar éste criterio a los datos de la muestra. El análisis para la muestra completa se encuentra disponible en la sección Anexos.

6.4.1.- DATOS DIARIOS:

TABLA N°32:   SELECCIÓN DE ACCIONES POR FRECUENCIA.

ACCION	FREC (5)	FREC (10)	FREC (15)	FREC (20)
AEP	40.96%	62.29%	50.81%	52.82%
AES	65.48%	63.60%	55.60%	48.77%
AMAT	38.20%	46.62%	58.84%	59.26%
AMR	52.07%	46.33%	59.01%	54.09%
AOL	55.13%	49.10%	43.63%	28.67%
APC	42.19%	55.47%	60.66%	36.38%
BAC	54.22%	45.88%	57.67%	48.19%
CAT	66.96%	42.23%	56.36%	23.69%
CD	26.27%	43.31%	41.56%	55.46%
CL	57.29%	62.35%	46.48%	78.82%
CMCSK	34.04%	73.22%	64.63%	86.37%
COP	46.26%	66.03%	81.28%	68.85%
CSC	48.76%	53.20%	63.37%	48.94%
CUM	52.24%	63.03%	46.64%	47.94%
CZN	58.76%	49.67%	68.56%	60.52%
D	55.06%	76.75%	43.38%	48.12%
DD	48.83%	57.89%	64.45%	53.40%
DG	42.80%	52.21%	55.60%	52.41%
DUK	53.43%	51.72%	43.97%	61.99%
EK	46.61%	37.18%	34.07%	44.36%
EMC	46.18%	63.42%	48.59%	68.05%
EP	44.76%	57.66%	49.13%	46.33%
GT	50.11%	46.56%	38.96%	49.19%
HD	43.82%	67.34%	75.61%	65.82%
HMA	48.97%	58.13%	56.08%	64.94%
HON	57.31%	55.35%	45.15%	57.55%
JPM	53.66%	48.82%	51.98%	42.83%
KO	33.27%	66.99%	54.90%	62.37%
ODP	39.35%	40.74%	35.82%	48.95%
ORCL	59.64%	88.61%	73.53%	41.20%
OXY	66.01%	52.53%	57.83%	44.54%
PBI	48.51%	78.80%	82.65%	65.61%
PD	51.37%	40.90%	33.90%	41.66%
PGN	49.17%	74.32%	45.32%	50.19%
PGR	46.69%	60.71%	51.45%	58.12%
PPG	47.70%	51.35%	61.48%	25.83%
RSH	39.08%	38.47%	34.89%	43.64%
S	60.64%	48.94%	56.24%	59.40%
SLB	36.95%	70.83%	53.66%	62.95%
SO	49.64%	72.81%	50.69%	59.52%
T	31.56%	42.59%	45.11%	45.99%
TXU	45.26%	52.06%	47.04%	54.78%
WMI	55.42%	46.11%	57.93%	50.73%
XRX	32.23%	48.79%	63.41%	47.44%

En este caso el indicador estadístico momentum preseneta resultados similares a los proporcionados por los osciladores (RSI, %R y %K) en cuanto a frecuencias, es decir, un número superior a 30 acciones, en el que se dan todas las posibles combinaciones, un solo plazo, dos, tres o incluso todos.

TABLA N°33:   **RENTABILIDAD PROMEDIO ANUAL DE LA TÉCNICA PARA LAS ACCIONES SELECCIONADAS.**

ACCION	R.P.A. (5)	R.P.A. (10)	R.P.A. (15)	R.P.A. (20)
AEP	14.99%	8.34%	10.02%	9.35%
AES	13.17%	23.19%	26.53%	31.32%
AMAT	54.08%	38.32%	33.93%	29.12%
AMR	6.58%	9.79%	2.79%	2.21%
AOL	79.41%	93.01%	107.21%	133.39%
APC	18.35%	13.12%	11.15%	27.02%
BAC	18.21%	19.77%	18.81%	17.88%
CAT	10.05%	21.01%	13.48%	13.94%
CD	45.42%	25.79%	34.98%	19.90%
CL	16.40%	11.62%	26.34%	11.51%
CMCSK	35.62%	9.30%	9.36%	0.78%
COP	15.55%	5.51%	1.58%	5.06%
CSC	17.60%	13.87%	12.38%	19.91%
CUM	3.03%	1.20%	12.28%	5.66%
CZN	-12.22%	-7.43%	-9.56%	-6.60%
D	10.11%	6.62%	12.66%	8.12%
DD	11.40%	9.88%	4.67%	4.24%
DG	37.66%	33.19%	24.17%	30.63%
DUK	14.11%	11.82%	13.98%	6.04%
EK	4.51%	8.91%	11.74%	7.98%
EMC	56.00%	25.61%	52.87%	28.97%
EP	22.24%	19.41%	15.39%	18.27%
GT	-0.10%	6.53%	6.71%	-0.23%
HD	20.12%	15.30%	16.02%	14.95%
HMA	34.74%	33.45%	31.58%	19.66%
HON	9.47%	15.22%	21.08%	6.99%
JPM	22.51%	23.45%	15.48%	24.70%

KO	17.80%	7.77%	11.33%	6.21%
ODP	14.18%	10.29%	21.37%	12.11%
ORCL	54.63%	8.08%	21.66%	23.51%
OXY	2.26%	7.24%	5.27%	13.88%
PBI	11.53%	-3.39%	-2.26%	6.45%
PD	3.12%	7.00%	10.38%	6.27%
PGN	13.54%	5.76%	11.97%	10.41%
PGR	20.22%	20.64%	20.11%	26.82%
PPG	10.05%	8.85%	7.57%	18.49%
RSH	34.63%	34.01%	38.44%	33.40%
S	9.03%	15.31%	13.37%	11.79%
SLB	15.75%	2.52%	14.99%	8.15%
SO	14.39%	6.86%	14.93%	11.52%
T	9.89%	-3.63%	2.83%	-0.77%
TXU	9.42%	9.40%	9.41%	5.97%
WMI	20.17%	22.83%	15.39%	15.93%
XRX	25.54%	2.63%	-3.04%	24.50%

En éste caso, a pesar de que ya no trabajamos con osciladores como los anteriores, se mantiene la tendencia hacia las mayores rentabilidades asociadas a las frecuencia más favorables, aunque siguen existiendo excepciones como T, que a pesar de presentar frecuencias menores a 50%, en algunos plazos tiene pérdidas promedio anual.

TABLA N°34:   DESVIACIONES ESTANDAR DE LAS ACCIONES SELECCIONADAS.

ACCION	D.E. (5)	D.E. (10)	D.E. (15)	D.E. (20)
AEP	18.71%	24.88%	16.55%	21.19%
AES	39.01%	35.38%	40.91%	37.75%
AMAT	51.57%	72.33%	50.69%	44.53%
AMR	30.13%	32.50%	27.33%	33.94%
AOL	86.04%	83.90%	111.22%	134.97%
APC	26.08%	17.94%	23.39%	29.48%
BAC	27.02%	21.12%	20.45%	18.57%
CAT	25.32%	19.72%	24.47%	23.15%
CD	45.69%	28.74%	47.67%	35.85%
CL	16.46%	12.25%	21.28%	17.15%
CMCSK	39.05%	27.06%	29.58%	26.08%
COP	14.14%	16.46%	14.80%	20.49%
CSC	29.95%	20.64%	21.93%	17.41%
CUM	18.95%	22.34%	22.45%	26.59%
CZN	11.53%	14.56%	21.00%	15.84%
D	15.49%	18.84%	17.55%	12.81%

DD	13.86%	14.66%	14.53%	11.31%
DG	31.98%	44.72%	39.86%	31.54%
DUK	22.41%	15.23%	18.44%	14.14%
EK	25.96%	21.07%	18.79%	22.32%
EMC	61.12%	36.41%	56.94%	44.49%
EP	21.59%	17.83%	20.45%	24.88%
GT	20.54%	28.71%	19.16%	23.75%
HD	18.97%	23.66%	24.47%	19.95%
HMA	36.69%	31.84%	28.04%	28.60%
HON	16.16%	29.70%	18.06%	20.52%
JPM	21.75%	25.57%	20.45%	21.35%
KO	20.27%	19.80%	12.41%	11.00%
ODP	29.95%	31.30%	41.93%	37.79%
ORCL	97.38%	52.10%	50.32%	69.57%
OXY	15.56%	15.87%	17.58%	15.46%
PBI	24.25%	12.96%	15.59%	14.07%
PD	14.63%	18.73%	18.71%	13.23%
PGN	17.92%	20.27%	17.52%	16.28%
PGR	35.67%	28.09%	24.92%	11.58%
PPG	15.00%	19.52%	12.69%	15.07%
RSH	40.51%	52.72%	56.86%	48.87%
S	24.39%	25.79%	24.62%	26.15%
SLB	19.75%	14.59%	28.07%	16.22%
SO	15.00%	11.75%	18.95%	14.14%
T	27.87%	23.26%	24.04%	20.76%
TXU	22.05%	18.49%	20.10%	13.11%
WMI	25.28%	31.03%	22.72%	37.34%
XRX	41.50%	26.93%	11.79%	41.23%

Los patrones se siguen manteniendo en el caso del momento, desviaciones dentro de un rango y mayores riesgos asociados a mayores ganancias.

TABLA N°35:   EXCEDENTES DE RENTABILIDAD PARA LAS ACCIONES SELECCIONADAS.

ACCION	EXCED (5)	EXCED (10)	EXCED (15)	EXCED (20)
AEP	4.45%	-2.16%	-0.44%	-1.06%
AES	-17.31%	-7.24%	-3.87%	0.94%
AMAT	-3.02%	-18.50%	-22.66%	-27.23%
AMR	5.96%	9.20%	2.22%	1.66%
AOL	-41.64%	-27.77%	-13.30%	13.19%
APC	1.68%	-3.48%	-5.41%	10.49%
BAC	0.57%	2.14%	1.19%	0.26%
CAT	-7.52%	3.55%	-3.90%	-3.36%
CD	30.62%	11.32%	20.77%	5.98%

CL	-3.35%	-8.18%	6.48%	-8.40%
CMCSK	8.29%	-17.89%	-17.71%	-26.18%
COP	3.03%	-6.99%	-10.90%	-7.41%
CSC	-2.20%	-5.89%	-7.35%	0.21%
CUM	-2.59%	-4.38%	6.73%	0.15%
CZN	-11.91%	-7.06%	-9.11%	-6.08%
D	-1.70%	-5.15%	0.93%	-3.56%
DD	-0.51%	-2.05%	-7.28%	-7.72%
DG	11.11%	6.81%	-2.06%	4.55%
DUK	0.87%	-1.40%	0.80%	-7.10%
EK	0.85%	5.32%	8.24%	4.56%
EMC	13.66%	-15.82%	-17.83%	-41.02%
EP	5.06%	2.30%	-1.67%	1.24%
GT	-1.85%	4.85%	5.10%	-1.75%
HD	-2.16%	-7.02%	-6.36%	-7.51%
HMA	-0.92%	-2.16%	-3.99%	-15.89%
HON	-4.62%	1.19%	7.09%	-6.95%
JPM	3.79%	4.75%	-3.17%	6.12%
KO	3.56%	-6.50%	-2.97%	-8.12%
ODP	-1.60%	-5.36%	5.81%	-3.37%
ORCL	-10.79%	-57.10%	-43.33%	-41.26%
OXY	-7.78%	-2.79%	-4.75%	3.87%
PBI	-3.07%	-17.98%	-16.86%	-8.16%
PD	1.13%	5.00%	8.36%	4.22%
PGN	1.08%	-6.65%	-0.39%	-1.89%
PGR	-6.79%	-6.23%	-6.63%	0.24%
PPG	0.36%	-0.82%	-2.09%	8.83%
RSH	8.84%	8.25%	12.72%	7.71%
S	-9.11%	-2.68%	-4.45%	-5.86%
SLB	2.35%	-10.91%	1.52%	-5.36%
SO	-1.70%	-9.20%	-1.11%	-4.49%
T	12.66%	-0.75%	5.80%	2.28%
TXU	-0.45%	-0.45%	-0.41%	-3.82%
WMI	1.86%	4.79%	-2.68%	-2.16%
XRX	18.59%	-4.35%	-10.04%	17.46%

Observamos que los excedentes negativos, para éste criterio, representan un 35% del total de los casos. Se repiten acciones como EK, ODP y RSH, las cuales en la aplicación de los osciladores anteriores, no presentaban esta característica. Al igual que en los casos anteriores, se observa una variación importante en las rentabilidades al aplicar ésta técnica en diferentes períodos. Esto se manifiesta en la acción ODP, la cual presenta un excedente

negativo para 10 días (-5.36%), el que se transforma en positivo al aplicar la técnica a 15 días (5.81%).

TABLA N°36:   **ANALISIS GENERAL.**

MOMENTO	DIAS	N° ACCIONES	PROM. EXCED	PROM D.E.	PROM S/NEG	ACC POS
	5	26	2.70%	31.00%	7.42%	15
	10	17	-0.59%	37.60%	5.84%	10
	15	17	3.08%	40.20%	7.35%	12
	20	20	1.24%	42.50%	5.26%	15

A diferencia de casos anteriores, al aplicar el momentum a los datos diarios, los mejores resultados los encontramos en el plazo de 15 días, situación que no se mantiene al eliminar los excedentes negativos, ya que como en casos anteriores, los mejores resultados se encuentran en el plazo de 5 días. Es importante notar que los promedios de las desviaciones obtenidos son mayores en comparación con los osciladores, los cuales en algunos casos llegan a ser superiores a un 10%.

6.4.2.- DATOS SEMANALES:

TABLA N°37:   **SELECCIÓN DE ACCIONES POR FRECUENCIA.**

ACCION	FREC (5)	FREC (10)	FREC (15)	FREC (20)
AMR	46.02%	55.00%	56.70%	44.67%
BC	45.59%	48.04%	46.59%	45.33%
CD	48.60%	55.65%	50.11%	62.67%
CUM	59.57%	42.39%	39.78%	46.89%
CZN	40.00%	32.61%	20.66%	41.78%
EXC	37.85%	57.61%	36.48%	42.44%
F	66.24%	56.30%	78.02%	49.56%
GT	51.83%	39.57%	50.77%	49.33%
GWW	46.24%	67.39%	44.62%	50.22%
MO	46.45%	62.61%	70.11%	56.67%
ODP	67.74%	48.70%	49.23%	55.11%
OXY	48.39%	63.91%	60.88%	73.56%
PD	52.90%	51.96%	46.59%	32.67%

PLL	62.15%	42.83%	59.56%	57.78%
PPG	65.59%	67.83%	72.97%	47.11%
T	48.17%	35.43%	73.41%	46.89%

El primer punto relevante que vemos al aplicar esta técnica es que el número de acciones seleccionadas por frecuencias disminuye, desde un promedio cercano al 80 (total de números azules por técnica aplicada) a 33 acciones, incluso en comparación con la misma técnica para datos diarios.

TABLA N°38: **RENTABILIDAD PROMEDIO ANUAL DE LA TÉCNICA PARA LAS ACCIONES SELECCIONADAS.**

ACCION	R.P.A. (5)	R.P.A. (10)	R.P.A. (15)	R.P.A. (20)
AMR	-0.28%	-4.59%	0.67%	5.49%
BC	13.53%	15.08%	18.11%	18.59%
CD	9.31%	2.68%	10.07%	5.04%
CUM	1.76%	5.63%	10.22%	6.64%
CZN	0.58%	1.82%	10.41%	-2.53%
EXC	14.39%	2.94%	15.15%	11.53%
F	-3.47%	2.63%	-7.60%	3.58%
GT	-0.45%	10.26%	2.35%	1.08%
GWW	12.24%	4.60%	13.34%	10.71%
MO	21.82%	7.48%	8.85%	14.15%
ODP	-2.98%	12.34%	10.63%	17.39%
OXY	15.21%	3.54%	7.58%	-1.10%
PD	2.91%	5.31%	6.59%	11.87%
PLL	-1.07%	5.69%	-0.83%	1.61%
PPG	2.45%	1.95%	0.58%	11.30%
T	-1.06%	4.44%	-13.30%	-4.32%

Llama la atención en éste caso, el alto número de rentabilidades negativas, sobretodo para inversiones "cortas", aunque de todas formas siguen manejándose interesantes rentabilidades incluso superiores al 20%.

TABLA N°39: **DESVIACIONES ESTANDAR DE LAS ACCIONES SELECCIONADAS.**

ACCION	D.E. (5)	D.E. (10)	D.E. (15)	D.E. (20)
AMR	26.42%	18.08%	15.59%	15.72%
BC	16.28%	18.84%	23.75%	27.31%
CD	27.60%	30.92%	31.67%	31.95%
CUM	23.09%	24.33%	24.17%	28.16%
CZN	20.64%	17.69%	19.29%	22.76%
EXC	18.68%	16.76%	17.55%	18.84%
F	15.59%	17.83%	11.14%	11.18%
GT	21.31%	22.27%	23.47%	18.60%
GWW	19.05%	17.20%	30.59%	15.07%
MO	32.30%	19.97%	26.51%	24.58%
ODP	25.08%	29.80%	32.43%	44.59%
OXY	22.27%	17.41%	18.57%	16.64%
PD	22.76%	23.94%	22.20%	20.17%
PLL	14.49%	14.70%	16.16%	12.85%
PPG	12.61%	16.31%	56.39%	14.70%
T	22.07%	27.64%	24.41%	25.57%

Al cambiar el tipo de datos, en éste caso de diarios a semanales, los valores de las desviaciones estándar vuelven a rangos similares a los obtenidos por los otros criterios (alrededor del 20%), disminuyendo de forma importante en comparación con la misma técnica para datos diarios.

TABLA N°40: **EXCEDENTES DE RENTABILIDAD PARA LAS ACCIONES SELECCIONADAS.**

ACCION	EXCED (5)	EXCED (10)	EXCED (15)	EXCED (20)
AMR	-0.96%	-5.14%	0.21%	5.08%
BC	1.58%	3.19%	6.30%	6.79%
CD	-4.94%	-10.04%	-1.64%	-5.85%
CUM	-3.84%	0.24%	5.23%	1.98%
CZN	1.04%	2.64%	11.58%	-0.99%
EXC	-0.97%	-12.26%	-0.05%	-3.66%
F	-8.74%	-2.14%	-11.79%	-0.09%
GT	-2.18%	9.02%	1.37%	0.47%
GWW	2.27%	-5.42%	3.17%	0.42%
MO	5.06%	-9.88%	-9.01%	-4.24%
ODP	-18.79%	-2.84%	-4.14%	3.05%
OXY	5.07%	-6.45%	-2.40%	-11.14%
PD	-9.22%	3.12%	4.40%	9.72%
PLL	-6.24%	0.41%	-6.23%	-3.90%
PPG	-7.34%	-7.74%	-9.02%	1.79%
T	1.90%	7.85%	-9.59%	-0.47%

En éstos resultados sólo dos acciones se repiten para todos los períodos de tiempo, BC y CZN, las que nuevamente presentan rendimientos dispares al cambiar el número de semanas en las que se aplica la técnica, pasando, como ya se mencionó, desde excedentes negativos a positivos y viceversa.

TABLA N°41:   ANALISIS GENERAL.

MOMENTO	SEMANAS	N° ACCIONES	PROM. EXCED	PROM D.E.	PROM S/NEG	ACC POS
	5	9	0.35%	23.30%	2.87%	5
	10	7	2.94%	22.27%	3.90%	6
	15	7	3.78%	24.80%	6.14%	5
	20	10	2.06%	21.00%	4.31%	6

Al igual que con los datos diarios, la aplicación del momento a datos semanales también entrega los mejores resultados para 15 semanas, pero a diferencias de éstos, al eliminar las acciones que presentan excedentes negativos, el resultado se mantiene en las 15 semanas. Cabe destacar que, como es de esperar, la desviaciones más alta es la que acompaña a éstos excedentes mayores.

7.- CONCLUSIONES.

Con el objetivo de exponer de la mejor manera posible los resultados obtenidos en la presente investigación, hemos dividido esta sección en dos partes, conclusiones generales y específicas. La primera de ellas se refiere a los beneficios o posibles desventajas que se pueden obtener al aplicar un determinado criterio de análisis técnico para un período determinado de tiempo y un tipo específico de datos. Además dentro de esta "sub-sección" se incluyen comparaciones no sólo dentro de una técnica, sino que también entre los distintos criterios.

En la segunda parte lo que se realizó fue una comparación de los resultados obtenidos para acciones específicas de la muestra, basados principalmente en la obtención de frecuencias favorables, las que ya hemos definido como inferiores al 50%, lo que significa que los resultados obtenidos tras la aplicación de la técnica fueron mejores (en número de veces) a los obtenidos por una estrategia pasiva como la de "buy and hold" y en la existencia de excedentes positivos, es decir, utilidad después de comparar ambas estrategias (análisis técnico v/s estrategia pasiva).

7.1.- CONCLUSIONES GENERALES.

La primera interrogante que buscamos resolver en éste punto, se refiere al tipo de datos a utilizar ¿diarios o semanales?, la respuesta no es categórica y difiere con respecto a el criterio utilizado, si bien es cierto que para los osciladores %R y %K, los datos que entregan los mejores resultados son claramente los diarios y estos resultados no cambian al eliminar las acciones con excedentes negativos, una situación distinta se da en los otros dos casos.

Para el oscilador RSI, los mayores retornos se obtienen al utilizar datos diarios, pero ésta situación cambia cuando se eliminan las acciones que entregan excedentes negativos, y en este nuevo escenario los datos semanales son los más indicados.

Para el momento la situación es inversa, o sea, los mejores retornos iniciales aparecen con la aplicación de datos semanales, situación que cambia al eliminar los excedentes negativos, y en este nuevo contexto los mejores resultados los entregan los datos diarios.

Otra interrogante a resolver es la de si existe una diferencia significativa entre el uso de un período de tiempo y otro. La respuesta indudablemente es sí. Independiente del criterio de análisis técnico que estemos empleando, la diferencia entre utilizar 5, 10, 15 ó 20 días o semanas, puede traducirse como la diferencia entre obtener utilidades o pérdidas. Nuevamente los resultados para los oscilares %K y %R son muy similares. En ambos casos los mejores resultados aparecen como fruto de los movimientos más cortos, estos es, 5 días o 5 semanas dependiendo de los datos, e independiente de la exclusión o no de los excedentes negativos.

También observamos cambios para el oscilador RSI, en cuyo caso los mejores retornos se obtienen de movimientos un poco más largos, en éste caso 20 días. Esto cambia para el caso de los datos semanales en los que nuevamente observamos un óptimo en 5 semanas. Para ambos datos la exclusión de los excedentes negativos es irrelevante puesto que los óptimos no cambian.

Para el momento sin embargo, la situación es distinta, ya que no es clara la existencia de un período óptimo. Para los datos diarios los mejores resultados están en un punto intermedio, 15 días, pero al eliminar los excedentes negativos, la nueva mejor rentabilidad se encuentra

en los 5 días. Al aplicar este criterio sobre datos semanales el resultado es constante, es decir, se mantiene independiente de los excedentes negativos, y este se encuentra en las 15 semanas.

Todo lo anterior, se resume en la TABLA N° 42 donde se muestra la técnica utilizada; el tipo de datos, el período de tiempo; el promedio de los retornos entregados por la selección de acciones; como cambia éste promedio al eliminar las acciones con excedentes negativos; la desviación estándar; el número de acciones totales y finalmente el número de acciones que quedan al eliminar los excedentes negativos.

TABLA N° 42: RESULTADOS

CRITERIO	DATOS	PERIODO	PROM. EXCED	PROM. S/N	D.E.	N ACCIONES (T)	N ACCIONES (S)
RSI	diarios	5	3.27%	3.89%	21.35%	14	12
RSI	diarios	10	-0.22%	2.76%	18.89%	14	8
RSI	diarios	15	1.04%	4.22%	21.79%	7	5
RSI	diarios	20	4.34%	5.34%	25.85%	6	5
RSI	semanales	5	2.24%	7.53%	22.47%	10	5
RSI	semanales	10	0.45%	2.56%	22.18%	9	5
RSI	semanales	15	-1.65%	2.74%	21.35%	5	2
RSI	semanales	20	1.95%	4.74%	13.19%	3	2
%R	diarios	5	5.70%	8.52%	27.73%	39	29
%R	diarios	10	4.34%	5.66%	24.33%	30	26
%R	diarios	15	1.26%	5.31%	21.14%	30	16
%R	diarios	20	1.19%	4.15%	21.79%	28	18
%R	semanales	5	3.81%	6.11%	18.00%	18	13
%R	semanales	10	-0.47%	4.36%	17.86%	26	11
%R	semanales	15	-1.43%	2.97%	19.90%	19	8
%R	semanales	20	-0.32%	3.36%	19.70%	19	11
%K	diarios	5	4.76%	7.73%	25.83%	43	32
%K	diarios	10	4.54%	5.26%	24.04%	33	30
%K	diarios	15	1.24%	4.06%	21.35%	30	18
%K	diarios	20	1.54%	4.19%	20.59%	28	18
%K	semanales	5	2.93%	4.89%	18.00%	18	13
%K	semanales	10	-0.98%	4.09%	18.55%	24	11

%K	semanales	15	-2.19%	3.25%	20.45%	20	7
%K	semanales	20	-0.32%	3.36%	19.72%	19	11
MOMENTO	diarios	5	2.70%	7.42%	31.10%	26	15
MOMENTO	diarios	10	-0.59%	5.84%	37.67%	17	10
MOMENTO	diarios	15	3.08%	7.35%	40.29%	17	12
MOMENTO	diarios	20	1.24%	5.26%	42.51%	20	15
MOMENTO	semanales	5	0.35%	2.87%	23.30%	9	5
MOMENTO	semanales	10	2.94%	3.90%	22.76%	7	6
MOMENTO	semanales	15	3.78%	6.14%	24.82%	7	5
MOMENTO	semanales	20	2.06%	4.31%	21.00%	10	6

7.2.- CONCLUSIONES ESPECÍFICAS:

Quisimos separar ésta sección de la anterior ya que los resultados que expondremos en ésta, no tiene el carácter de general que le quisimos dar a la anterior, en ésta nos referiremos a acciones específicas de nuestra muestra y los indicadores obtenidos tras el análisis. Aquí la principal distinción la hacemos por acción en especial y la forma de maximizar los retornos entregados por ésta.

En la TABLA N° 43 aparecen las acciones que son más importantes desde el punto de vista de su rentabilidad promedio anual, aunque también se analiza, por supuesto, su frecuencia, rentabilidad promedio anual, y su relación con los retornos de la estrategia pasiva (excedente).

Las columnas representan: sigla de la acción; técnica que maximiza la inversión en esta acción; el tipo de dato (diario o semanal); período de tiempo que se utilizó para lograr éste resultado; la Rentabilidad Promedio Anual (R.P.A.) de aplicar dicha técnica; el excedente que se obtiene por sobre la estrategia "buy and hold"; y finalmente la desviación de la R.P.A.

TABLA N° 43: RENDIMIENTOS POR ACCION.

ACCION	TECNICA	DATOS	PERIODO	R.P.A.	EXCED	D.E.

BMET	%R	DIARIOS	5	59.63%	35.01%	44.50%
BMET	%K	DIARIOS	5	59.15%	34.81%	44.27%
CD	MOMENTO	DIARIOS	5	45.42%	30.67%	45.69%
CD	MOMENTO	DIARIOS	15	34.98%	20.82%	47.66%
XOM	%R	DIARIOS	5	31.02%	19.39%	19.15%
XOM	%K	DIARIOS	5	30.71%	19.18%	19.26%
AOL	MOMENTO	DIARIOS	20	133.39%	17.79%	134.97%
BMET	%R	DIARIOS	10	42.38%	17.58%	31.33%
BMET	%K	DIARIOS	10	42.05%	17.53%	31.25%
XRX	MOMENTO	DIARIOS	20	24.50%	17.37%	41.23%
MOLX	%R	DIARIOS	5	33.32%	16.91%	25.33%
BLS	%R	DIARIOS	5	31.02%	16.84%	24.12%
BLS	%K	DIARIOS	5	30.91%	16.84%	24.00%
MOLX	%K	DIARIOS	5	32.82%	16.52%	25.23%
PEP	%K	DIARIOS	5	29.01%	16.39%	16.21%
AMR	RSI	SEMANALES	5	16.24%	15.56%	18.16%
AMR	%R	DIARIOS	10	15.19%	14.59%	30.57%
PCAR	%K	DIARIOS	5	31.72%	14.57%	32.23%
AMR	%K	DIARIOS	10	15.12%	14.53%	30.54%
PCAR	%R	DIARIOS	5	31.24%	13.95%	31.73%
CTAS	%R	DIARIOS	5	35.97%	13.70%	26.40%
EK	%R	DIARIOS	15	17.17%	13.65%	26.01%
EK	%K	DIARIOS	15	17.09%	13.59%	26.05%
CTAS	%K	DIARIOS	5	35.61%	13.53%	26.24%
PD	RSI	SEMANALES	5	15.46%	13.33%	31.32%
AMR	%R	SEMANALES	5	14.00%	13.32%	28.68%
AMR	%K	SEMANALES	5	14.00%	13.32%	28.68%
APC	%R	SEMANALES	10	29.05%	13.13%	26.75%
AMR	%R	DIARIOS	20	13.58%	13.02%	27.38%
AMR	%K	DIARIOS	20	13.37%	12.82%	27.18%
APC	%K	SEMANALES	10	29.05%	12.78%	26.75%
PEP	%R	DIARIOS	5	29.16%	12.72%	16.24%
T	MOMENTO	DIARIOS	5	9.89%	12.72%	27.87%
RSH	MOMENTO	DIARIOS	15	38.44%	12.56%	56.85%
AMR	%R	DIARIOS	15	13.03%	12.45%	27.51%
MOLX	%R	DIARIOS	10	28.61%	12.24%	24.26%
MOLX	%K	DIARIOS	10	28.48%	12.22%	24.16%
CZN	MOMENTO	SEMANALES	15	10.41%	11.58%	19.28%
CD	MOMENTO	DIARIOS	10	25.79%	11.35%	28.74%
PEP	%R	DIARIOS	10	24.03%	11.29%	18.13%
PEP	%K	DIARIOS	10	23.92%	11.28%	18.11%
CSC	RSI	DIARIOS	10	31.10%	11.21%	31.74%
AMR	%R	DIARIOS	5	11.82%	11.21%	29.41%
AMR	%K	DIARIOS	5	11.67%	11.05%	29.42%
CZN	%R	DIARIOS	5	10.62%	10.96%	16.40%
DG	MOMENTO	DIARIOS	5	37.66%	10.95%	31.98%
APC	MOMENTO	DIARIOS	20	27.02%	10.39%	29.47%
CZN	%K	DIARIOS	5	10.05%	10.36%	16.61%
COST	%K	DIARIOS	10	33.21%	10.21%	30.16%

COST	%R	DIARIOS		10	33.38%	10.15%	30.23%

Al ordenar estos resultados de acuerdo al excedente entregado para cada acción, se reafirman las conclusiones de la parte anterior, es decir, vemos un claro dominio de los datos diarios sobretodo en los osciladores %R y %K, resultados que cambian de acuerdo a la acción en las otras técnicas.

También se cumple lo expuesto sobre las desviaciones, sobretodo en el caso del momento, la cual está entre los que entrega mayores rentabilidades, pero sus desviaciones son muy altas en comparación con los osciladores.

Un último aspecto a resaltar es el hecho de que las acciones que mejor responden a las técnicas son en general las mismas, como por ejemplo, AMR, BMET, CZN, XOM, etc.

Por todo lo anterior creemos que sí existen óptimos en lo que se refiere al tipo de datos, los intervalos de tiempo, y las desviaciones que estemos dispuestos a aceptar. Muchas de las conclusiones dependen de gran manera de la acción en cuestión, pero en el apartado de conclusiones generales mostramos que sí existen ciertos patrones que se repiten, y que son consistentes con los resultados después expuestos como conclusiones específicas.

8.- ANEXOS.

ANEXO 1: APLICACIÓN DEL OSCILADOR RSI.

DATOS DIARIOS:

La tabla N°8.1 muestra los resultados obtenidos de la aplicación del criterio RSI para 5 días. La primera columna representa la sigla de la **acción** correspondiente; la segunda columna representa las **frecuencias**, como ya mencionamos, es el número de veces que la estrategia "buy and hold" supera a la aplicación de la técnica, la columna siguiente corresponde a la **rentabilidad del periodo,** vale decir, los 10 años; la cuarta columna representa la **rentabilidad promedio anual de la aplicación de la técnica,** la quinta columna corresponde a la **desviación estándar** de esta rentabilidad; para concluir con la **rentabilidad promedio anual de la estrategia pasiva**.

Esta explicación es válida para las tablas N° 8.1. hasta la 8.32.

TABLA N°8.1: **APLICACIÓN DEL OSCILADOR RSI PARA 5 DÍAS**
(PERIODO 1992-2002)

RSI	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					

ADP	41.99%	496.73%	22.55%	19.85%	18.92%
AEP	43.39%	170.45%	15.26%	25.16%	10.54%
AES	63.29%	-65.42%	9.96%	42.39%	30.48%
AMAT	72.49%	95.39%	13.91%	43.47%	57.10%
AMR	29.38%	-4.27%	8.14%	28.74%	0.62%
AOL	64.31%	1237.32%	45.89%	60.93%	121.05%
APC	54.29%	90.57%	10.52%	21.91%	16.67%
AT	53.91%	98.57%	9.39%	10.49%	14.51%
AXP	58.66%	333.65%	19.23%	27.48%	24.44%
BA	77.54%	-17.54%	-0.57%	20.49%	14.02%
BAC	78.83%	61.69%	6.44%	21.54%	17.64%
BC	62.06%	4.43%	3.21%	20.15%	11.91%
BK	77.20%	327.61%	14.88%	19.90%	27.93%
BLS	58.66%	59.68%	9.16%	13.19%	14.07%
BMET	59.51%	187.71%	18.84%	26.12%	24.34%
BUD	68.07%	228.45%	15.30%	15.17%	19.26%
C	80.75%	87.79%	8.78%	28.04%	33.34%
CAT	50.95%	140.78%	11.80%	21.66%	17.57%
CD	63.97%	-20.58%	2.85%	33.82%	14.80%
CIN	38.90%	167.75%	11.00%	15.91%	10.61%
CL	61.88%	321.62%	16.97%	15.91%	19.75%
CMCSK	61.44%	148.53%	10.61%	22.41%	27.33%
COP	41.77%	440.08%	20.46%	16.67%	12.52%
COST	65.51%	228.97%	16.84%	27.33%	23.00%
CSC	69.50%	64.89%	10.08%	27.22%	19.80%
CSCO	77.53%	131.80%	19.13%	43.19%	55.70%
CTAS	58.21%	504.40%	22.80%	23.47%	22.08%
CTL	70.70%	57.32%	7.94%	28.37%	16.10%
CUM	53.90%	-43.97%	-2.19%	19.92%	5.62%
CVX	48.91%	159.64%	13.03%	10.44%	13.53%
CZN	30.58%	-7.38%	1.82%	18.81%	-0.31%
D	56.11%	83.27%	7.20%	14.28%	11.81%
DD	59.53%	123.88%	9.40%	10.15%	11.91%
DELL	73.56%	595.45%	32.23%	60.93%	90.86%
DG	62.25%	433.28%	20.60%	35.47%	26.55%
DIS	59.96%	89.49%	10.19%	29.14%	8.66%
DTE	67.54%	73.65%	6.19%	12.41%	10.92%
DUK	70.72%	-11.03%	4.83%	18.25%	13.24%
EK	31.28%	96.33%	9.75%	17.18%	3.66%
EMC	52.51%	1573.10%	55.55%	89.52%	42.34%
EP	72.01%	-46.88%	1.11%	20.35%	17.18%
EXC	69.18%	56.94%	7.09%	21.00%	15.37%
F	33.66%	48.91%	8.55%	18.49%	5.25%
FDC	56.99%	577.56%	21.23%	27.06%	21.04%
FRE	58.27%	592.97%	24.78%	16.00%	24.57%
G	56.59%	222.35%	14.83%	20.17%	13.37%
GE	78.13%	213.03%	13.29%	16.03%	24.59%

GT	53.42%	-39.61%	-2.22%	20.54%	1.75%
GWW	64.47%	53.04%	5.87%	19.52%	9.89%
HD	61.16%	104.22%	15.08%	24.21%	22.28%
HMA	69.87%	231.07%	15.74%	24.02%	35.66%
HON	79.02%	75.17%	6.26%	17.46%	14.09%
HPQ	63.75%	51.33%	10.94%	22.96%	17.66%
INTC	78.75%	225.59%	19.56%	33.90%	39.36%
JNJ	60.00%	400.61%	19.15%	12.45%	23.60%
JPM	61.17%	105.09%	10.57%	25.75%	18.72%
KEY	63.27%	53.58%	5.46%	17.89%	10.82%
KMB	53.01%	203.47%	12.43%	11.96%	13.60%
KO	57.88%	76.04%	8.67%	17.83%	14.24%
KR	75.09%	81.95%	10.21%	16.22%	24.55%
LMT	82.78%	-38.16%	-4.57%	19.82%	19.84%
MCD	63.95%	27.56%	5.50%	14.46%	12.03%
MDT	60.01%	284.20%	19.25%	20.49%	32.63%
MER	77.14%	79.14%	7.78%	25.55%	28.97%
MMM	66.36%	129.55%	7.28%	12.21%	13.20%
MO	62.20%	105.54%	10.89%	20.15%	16.20%
MOLX	74.98%	-22.85%	-1.06%	16.58%	16.30%
NTRS	80.54%	140.78%	11.38%	24.17%	26.16%
ODP	44.02%	176.93%	17.43%	43.52%	15.78%
ORCL	69.62%	54.50%	7.42%	26.21%	65.42%
OXY	75.26%	-37.51%	-8.42%	15.26%	10.04%
PBI	62.22%	172.33%	11.31%	18.55%	14.60%
PCAR	61.44%	45.86%	7.74%	19.24%	17.15%
PCL	72.97%	125.63%	8.60%	17.23%	17.41%
PD	34.71%	42.79%	7.96%	21.70%	1.99%
PEP	36.60%	252.04%	15.33%	15.10%	12.62%
PFE	62.92%	279.62%	18.12%	22.52%	29.96%
PG	58.76%	194.87%	11.71%	15.87%	17.07%
PGN	57.09%	109.92%	8.06%	10.86%	12.46%
PGR	78.74%	90.32%	9.18%	24.43%	27.01%
PLL	46.93%	64.11%	6.28%	12.29%	4.99%
PPG	65.17%	52.24%	5.27%	17.75%	9.69%
RSH	53.55%	275.39%	19.78%	36.48%	25.79%
S	71.58%	-7.80%	-0.23%	21.66%	18.14%
SBC	65.66%	8.82%	2.56%	11.53%	13.01%
SHW	49.56%	122.14%	9.86%	12.29%	10.16%
SLB	52.47%	87.86%	9.65%	20.93%	13.40%
SO	65.51%	126.82%	9.37%	12.88%	16.09%
SUNW	73.59%	-26.40%	10.08%	41.90%	61.08%
SWY	63.95%	493.65%	24.23%	25.57%	36.65%
T	54.90%	-66.19%	-5.64%	24.66%	-2.77%
TXU	71.88%	-4.40%	-0.48%	13.11%	9.87%
TYC	83.23%	18.33%	13.40%	31.86%	28.99%
UTX	68.92%	155.58%	11.31%	19.29%	24.58%

VZ	72.49%	-13.77%	3.33%	16.61%	11.84%
WFC	81.00%	64.06%	3.74%	10.44%	17.41%
WMB	67.73%	-44.46%	6.72%	23.92%	19.30%
WMI	68.73%	18.72%	6.94%	30.15%	18.31%
XOM	75.42%	38.10%	3.37%	6.86%	11.53%
XRX	50.20%	0.58%	4.27%	28.98%	6.95%

TABLA N°8.2: APLICACIÓN DEL OSCILADOR RSI PARA 10 DÍAS

(PERIODO 1992-2002)

RSI	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	54.88%	156.95%	15.70%	18.41%	18.95%
AEP	60.39%	21.25%	4.41%	9.17%	10.50%
AES	68.89%	-87.00%	-0.64%	31.84%	30.43%
AMAT	78.52%	25.01%	11.45%	41.02%	56.82%
AMR	47.18%	0.81%	9.09%	28.74%	0.59%
AOL	60.96%	2481.31%	64.25%	75.23%	120.78%
APC	45.69%	87.76%	9.73%	17.97%	16.60%
AT	75.10%	-26.89%	-1.31%	8.25%	14.43%
AXP	79.15%	90.35%	7.06%	13.67%	24.37%
BA	61.86%	94.57%	11.60%	21.84%	14.04%
BAC	59.84%	203.28%	12.54%	17.92%	17.63%
BC	58.44%	26.38%	4.32%	23.62%	11.90%
BK	65.42%	485.24%	22.14%	25.22%	27.37%
BLS	57.75%	0.93%	4.73%	12.12%	14.07%
BMET	64.91%	146.70%	13.43%	23.96%	24.52%
BUD	91.47%	51.30%	4.24%	26.83%	19.32%
C	80.64%	44.46%	8.82%	21.79%	33.15%
CAT	77.54%	-34.98%	-2.66%	14.11%	17.46%
CD	63.43%	97.23%	10.15%	35.06%	14.47%
CIN	56.28%	92.03%	6.87%	14.21%	10.58%
CL	90.07%	6.66%	0.47%	9.75%	19.80%
CMCSK	65.92%	-7.84%	5.73%	26.04%	27.19%

COP	71.48%	44.81%	5.55%	10.86%	12.50%
COST	64.84%	146.25%	12.54%	17.18%	23.00%
CSC	35.30%	662.92%	31.10%	31.75%	19.76%
CSCO	75.88%	330.61%	22.48%	38.24%	55.64%
CTAS	68.68%	127.92%	10.57%	12.33%	22.40%
CTL	47.75%	41.16%	4.00%	10.86%	16.07%
CUM	53.78%	-30.38%	-1.58%	13.86%	5.58%
CVX	47.78%	122.76%	11.18%	9.75%	13.48%
CZN	27.50%	-9.67%	0.96%	19.72%	-0.37%
D	56.25%	58.07%	6.62%	17.92%	11.77%
DD	75.91%	5.63%	1.25%	15.62%	11.93%
DELL	66.56%	1610.52%	47.68%	56.39%	91.12%
DG	92.58%	-46.82%	-4.89%	32.19%	26.38%
DIS	66.02%	87.70%	5.27%	15.72%	8.66%
DTE	60.52%	69.45%	7.21%	16.58%	10.92%
DUK	59.41%	156.11%	10.93%	14.87%	13.22%
EK	40.39%	87.45%	8.12%	14.83%	3.59%
EMC	81.37%	591.31%	38.29%	68.16%	41.43%
EP	54.81%	90.01%	15.92%	21.42%	17.11%
EXC	48.71%	50.50%	6.00%	17.18%	15.34%
F	55.00%	-15.61%	2.07%	23.49%	5.21%
FDC	64.57%	165.82%	11.97%	21.49%	21.00%
FRE	58.48%	451.34%	20.21%	19.13%	24.57%
G	64.37%	63.67%	7.55%	11.31%	13.42%
GE	71.95%	190.51%	12.55%	12.69%	24.57%
GT	63.58%	-44.92%	-3.77%	22.11%	1.68%
GWW	69.55%	35.72%	3.86%	14.35%	9.87%
HD	63.26%	338.39%	16.81%	21.95%	22.32%
HMA	75.58%	221.42%	16.63%	40.84%	35.61%
HON	69.72%	13.60%	2.76%	13.23%	14.03%
HPQ	50.85%	102.44%	16.10%	39.06%	17.63%
INTC	71.64%	516.41%	23.63%	42.81%	39.22%
JNJ	70.90%	191.22%	13.15%	13.89%	23.70%
JPM	66.34%	53.14%	6.65%	17.20%	18.70%
KEY	59.74%	44.59%	3.71%	14.56%	10.78%
KMB	41.33%	197.97%	15.05%	17.41%	13.65%
KO	58.64%	71.78%	6.57%	8.19%	14.27%
KR	78.14%	110.77%	9.99%	11.66%	24.44%
LMT	71.45%	-4.74%	1.99%	23.19%	19.81%
MCD	59.90%	70.84%	6.58%	13.11%	12.01%
MDT	73.42%	213.44%	15.69%	20.88%	32.75%
MER	70.21%	43.05%	7.68%	21.31%	28.84%
MMM	56.19%	174.52%	8.92%	11.70%	13.20%
MO	58.84%	16.37%	4.53%	13.56%	16.30%
MOLX	48.81%	168.89%	11.57%	16.67%	16.26%
NTRS	73.24%	104.35%	11.52%	14.21%	26.21%
ODP	64.33%	-13.74%	6.44%	37.35%	15.65%

ORCL	61.33%	241.61%	39.67%	109.58%	65.18%
OXY	46.76%	180.24%	12.46%	18.28%	10.03%
PBI	68.94%	7.06%	0.70%	12.65%	14.59%
PCAR	60.58%	4.65%	3.83%	19.03%	17.13%
PCL	63.60%	235.77%	14.72%	24.10%	17.35%
PD	41.26%	67.62%	7.36%	17.61%	2.00%
PEP	58.90%	120.75%	7.36%	9.43%	12.64%
PFE	73.45%	160.18%	16.20%	23.62%	30.07%
PG	82.46%	7.92%	-0.16%	13.23%	17.10%
PGN	63.78%	79.29%	7.50%	13.75%	12.41%
PGR	67.98%	57.71%	5.86%	22.41%	26.87%
PLL	63.58%	-5.88%	-0.58%	10.54%	5.02%
PPG	83.86%	13.46%	-3.35%	9.00%	9.67%
RSH	61.61%	18.91%	4.95%	23.83%	25.76%
S	49.26%	121.43%	9.71%	16.67%	17.99%
SBC	65.45%	49.79%	7.31%	16.25%	12.95%
SHW	60.73%	77.75%	6.49%	10.86%	10.41%
SLB	63.15%	20.80%	5.35%	28.76%	13.43%
SO	53.19%	218.61%	12.17%	9.33%	16.06%
SUNW	75.96%	48.16%	22.57%	66.81%	61.23%
SWY	87.91%	85.67%	5.18%	14.93%	36.57%
T	41.20%	41.27%	3.68%	15.00%	-2.88%
TXU	63.07%	22.31%	1.47%	12.88%	9.85%
TYC	75.15%	-7.25%	11.37%	27.71%	28.99%
UTX	80.30%	14.18%	4.51%	16.25%	24.62%
VZ	59.98%	9.50%	5.91%	11.58%	11.79%
WFC	82.14%	18.39%	0.83%	7.94%	19.36%
WMB	70.86%	-7.61%	4.66%	19.31%	19.15%
WMI	69.33%	35.26%	5.12%	13.19%	18.04%
XOM	77.54%	9.52%	2.28%	8.06%	11.55%
XRX	63.05%	-39.72%	1.45%	32.50%	6.98%

TABLA N°8.3: APLICACIÓN DEL OSCILADOR RSI PARA 15 DÍAS

(PERIODO 1992-2002)

RSI	RENT PERIODO	FREC	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	122.34%	59.51%	13.80%	15.20%	19.98%
AEP	23.45%	59.20%	4.84%	10.10%	10.46%
AES	-95.56%	79.19%	-8.73%	27.42%	30.40%
AMAT	11.08%	72.09%	7.00%	28.83%	56.59%
AMR	-27.52%	50.08%	1.69%	20.47%	0.57%

AOL	225.67%	68.86%	33.90%	56.17%	120.51%
APC	32.31%	64.94%	4.09%	14.32%	16.56%
AT	-8.54%	78.42%	-0.55%	10.05%	14.36%
AXP	91.12%	74.95%	8.87%	21.19%	24.30%
BA	-29.64%	82.95%	-2.11%	17.00%	14.05%
BAC	168.76%	58.43%	11.13%	15.26%	17.62%
BC	-4.09%	57.74%	3.42%	25.28%	11.90%
BK	161.61%	71.10%	13.34%	22.02%	27.36%
BLS	8.59%	69.28%	1.15%	7.68%	14.06%
BMET	82.35%	78.51%	8.90%	25.53%	24.68%
BUD	107.45%	77.16%	7.31%	11.27%	19.38%
C	28.17%	84.39%	4.87%	21.59%	32.97%
CAT	45.26%	63.07%	5.15%	14.83%	17.38%
CD	26.27%	74.56%	3.06%	33.44%	14.21%
CIN	41.47%	73.72%	2.77%	13.04%	10.56%
CL	-0.90%	89.96%	0.06%	5.66%	19.86%
CMCSK	58.28%	57.71%	11.12%	30.87%	27.07%
COP	-1.02%	82.46%	-0.10%	2.00%	12.48%
COST	-11.28%	74.00%	-0.19%	1.41%	23.02%
CSC	-0.96%	78.39%	1.01%	5.66%	19.73%
CSCO	161.57%	74.03%	12.29%	30.02%	55.62%
CTAS	6.66%	86.09%	1.31%	12.21%	22.15%
CTL	-15.47%	73.81%	0.08%	15.23%	16.50%
CUM	-41.56%	53.96%	-2.76%	17.26%	5.55%
CVX	145.12%	63.63%	9.92%	11.05%	13.45%
CZN	-10.14%	42.42%	2.01%	27.37%	-0.45%
D	16.92%	77.52%	1.29%	9.22%	11.73%
DD	-14.16%	77.12%	-1.65%	11.27%	11.95%
DELL	177.02%	74.19%	25.47%	49.93%	21.40%
DG	154.76%	66.67%	9.24%	25.38%	26.23%
DIS	-37.44%	69.33%	-0.18%	19.24%	8.66%
DTE	116.04%	57.02%	10.83%	20.02%	10.90%
DUK	11.84%	70.58%	1.32%	8.54%	13.18%
EK	26.53%	43.97%	4.37%	17.12%	3.50%
EMC	361.22%	74.65%	47.46%	87.41%	70.70%
EP	-32.56%	58.61%	5.42%	22.63%	17.06%
EXC	93.05%	51.57%	9.52%	18.95%	15.31%
F	-59.30%	63.09%	5.53%	12.69%	5.16%
FDC	110.45%	76.06%	7.42%	20.45%	20.97%
FRE	505.73%	48.11%	22.70%	16.91%	24.56%
G	-12.16%	68.83%	-1.03%	8.89%	13.46%
GE	296.86%	66.35%	19.03%	17.29%	24.56%
GT	-65.94%	70.23%	-6.29%	21.07%	1.61%
GWW	110.52%	53.22%	8.44%	15.26%	9.87%
HD	42.83%	71.70%	4.58%	11.14%	22.38%
HMA	413.01%	71.67%	24.81%	45.20%	35.57%
HON	416.13%	51.98%	18.57%	21.47%	13.99%

HPQ	16.30%	53.59%	14.25%	45.66%	17.63%
INTC	151.42%	66.24%	20.49%	46.14%	39.08%
JNJ	49.86%	83.78%	5.06%	9.90%	23.80%
JPM	216.69%	55.99%	17.05%	27.39%	18.65%
KEY	220.28%	41.72%	14.46%	19.97%	10.74%
KMB	45.16%	64.93%	4.71%	10.25%	13.69%
KO	178.02%	57.78%	12.37%	21.91%	14.30%
KR	74.97%	81.44%	7.46%	13.64%	24.34%
LMT	-28.84%	74.19%	-2.93%	21.49%	19.79%
MCD	67.85%	58.38%	7.11%	15.43%	11.98%
MDT	130.35%	73.90%	12.44%	21.00%	32.90%
MER	236.68%	61.93%	19.04%	30.64%	28.70%
MMM	78.09%	62.28%	5.81%	10.54%	13.21%
MO	111.65%	65.71%	10.79%	30.84%	16.46%
MOLX	141.34%	55.90%	14.21%	36.04%	16.23%
NTRS	85.45%	70.46%	9.30%	16.19%	26.26%
ODP	4.72%	58.78%	8.58%	44.70%	15.56%
ORCL	147.06%	75.34%	34.27%	112.82%	64.99%
OXY	236.93%	52.12%	13.02%	14.07%	10.02%
PBI	-33.54%	72.97%	-2.50%	14.66%	14.60%
PCAR	26.74%	62.19%	3.10%	13.08%	17.12%
PCL	58.63%	62.13%	5.79%	10.68%	17.29%
PD	128.42%	37.46%	9.56%	22.14%	2.02%
PEP	50.15%	66.96%	4.06%	7.48%	12.66%
PFE	215.33%	73.75%	18.32%	31.75%	30.18%
PG	22.40%	83.76%	0.26%	2.24%	17.14%
PGN	35.35%	69.26%	3.97%	11.14%	12.36%
PGR	4.85%	74.00%	0.69%	5.92%	26.74%
PLL	-8.60%	52.51%	0.23%	9.80%	5.05%
PPG	10.31%	72.65%	-0.91%	7.62%	9.66%
RSH	91.73%	63.32%	11.42%	36.06%	25.72%
S	49.93%	45.36%	5.28%	17.26%	17.82%
SBC	49.17%	54.57%	10.71%	21.07%	12.88%
SHW	-7.60%	73.33%	-0.43%	14.07%	10.12%
SLB	-14.44%	64.74%	0.05%	10.58%	13.47%
SO	146.25%	60.02%	10.10%	11.75%	16.04%
SUNW	-43.37%	72.05%	8.16%	44.46%	61.40%
SWY	401.47%	70.05%	18.36%	20.49%	36.47%
T	8.48%	29.32%	4.45%	28.50%	-2.97%
TXU	71.22%	55.36%	6.17%	14.73%	9.82%
TYC	-55.13%	81.64%	1.76%	23.17%	29.01%
UTX	82.63%	70.97%	9.47%	20.25%	24.66%
VZ	-36.79%	73.24%	-1.24%	5.57%	11.73%
WFC	28.29%	78.17%	1.50%	4.47%	19.30%
WMB	22.90%	60.35%	12.12%	22.05%	19.01%
WMI	-10.44%	73.91%	-0.33%	3.61%	18.07%
XOM	80.77%	64.92%	7.50%	12.77%	11.56%

| XRX | -20.26% | 58.43% | 4.16% | 35.65% | 7.00% |

TABLA N°8.4: APLICACIÓN DEL OSCILADOR RSI PARA 20 DÍAS

           (PERIODO 1992-2002)

RSI	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	55.76%	172.14%	15.82%	13.27%	19.00%
AEP	65.84%	11.26%	3.87%	12.17%	10.41%
AES	70.12%	-93.01%	-8.47%	24.41%	30.38%
AMAT	72.70%	-59.96%	-3.67%	9.17%	56.35%
AMR	70.33%	-83.06%	-8.78%	22.74%	0.55%
AOL	67.72%	252.28%	32.58%	47.05%	120.20%
APC	34.74%	446.76%	24.72%	29.93%	16.53%
AT	78.77%	-16.51%	1.12%	10.58%	14.29%
AXP	67.19%	189.15%	13.78%	19.21%	24.22%
BA	79.50%	41.18%	6.79%	21.31%	14.05%
BAC	72.71%	48.67%	4.04%	12.41%	17.62%
BC	59.13%	32.62%	7.26%	29.38%	11.90%
BK	57.54%	200.94%	17.52%	27.40%	27.35%
BLS	76.50%	-5.30%	-0.46%	2.65%	14.05%
BMET	77.28%	9.79%	1.54%	10.25%	24.84%
BUD	69.75%	175.06%	11.36%	14.63%	19.44%
C	83.58%	-5.19%	-0.15%	9.59%	32.77%
CAT	74.76%	-15.91%	-0.96%	13.00%	17.30%
CD	70.81%	-52.78%	-6.23%	15.94%	13.92%
CIN	75.62%	3.16%	-0.38%	5.57%	10.53%
CL	88.68%	-2.73%	-0.14%	4.80%	19.91%
CMCSK	63.97%	0.00%	0.00%	0.00%	26.96%
COP	76.83%	16.40%	2.91%	10.54%	12.47%
COST	73.93%	0.00%	0.00%	0.00%	23.03%
CSC	71.79%	24.97%	4.79%	11.58%	19.70%
CSCO	81.07%	21.79%	1.89%	13.15%	55.60%
CTAS	81.08%	22.66%	3.34%	30.50%	22.21%
CTL	66.92%	-15.74%	-0.34%	2.83%	16.04%
CUM	55.37%	-33.07%	-0.33%	20.86%	5.51%
CVX	57.41%	119.85%	11.15%	13.15%	13.45%
CZN	21.64%	36.09%	6.66%	26.72%	-0.52%
D	75.67%	-12.19%	-1.34%	4.36%	11.68%
DD	72.23%	-11.14%	0.11%	12.77%	11.96%
DELL	74.88%	497.28%	31.29%	42.72%	91.69%
DG	70.97%	118.47%	6.42%	22.38%	26.08%
DIS	68.67%	6.13%	0.70%	2.65%	8.66%
DTE	48.24%	123.34%	10.33%	18.25%	10.89%

DUK	72.87%	-8.19%	-1.18%	3.87%	13.14%
EK	56.63%	-32.66%	-2.62%	18.68%	3.42%
EMC	77.14%	31.27%	16.65%	58.38%	69.99%
EP	67.62%	23.17%	2.68%	8.49%	17.03%
EXC	56.83%	31.25%	3.51%	9.95%	15.26%
F	55.88%	-50.17%	-3.32%	13.34%	5.10%
FDC	83.30%	-6.48%	0.76%	11.62%	20.94%
FRE	79.17%	156.25%	10.66%	14.66%	24.57%
G	69.94%	-4.80%	-0.45%	6.63%	13.50%
GE	74.73%	171.64%	16.48%	24.78%	24.55%
GT	59.99%	-52.06%	-1.90%	24.52%	1.52%
GWW	64.81%	46.42%	5.08%	18.55%	9.88%
HD	78.29%	25.74%	3.16%	11.40%	22.46%
HMA	81.46%	9.74%	0.62%	2.45%	35.55%
HON	53.07%	201.21%	14.58%	18.71%	13.94%
HPQ	48.66%	545.63%	26.74%	31.46%	17.64%
INTC	58.20%	422.72%	27.92%	47.25%	38.95%
JNJ	51.43%	564.75%	25.98%	20.02%	23.91%
JPM	65.49%	95.18%	10.45%	26.13%	18.58%
KEY	55.63%	0.00%	0.00%	0.00%	10.02%
KMB	58.16%	117.22%	10.25%	17.20%	13.73%
KO	65.15%	0.00%	0.00%	0.00%	14.33%
KR	81.69%	0.00%	0.00%	0.00%	24.24%
LMT	66.20%	47.36%	4.83%	10.25%	19.76%
MCD	68.42%	0.00%	0.00%	0.00%	11.97%
MDT	65.87%	714.26%	31.40%	32.76%	33.06%
MER	58.87%	192.86%	19.34%	32.88%	28.56%
MMM	73.38%	8.54%	0.88%	2.45%	13.22%
MO	56.39%	135.43%	8.68%	15.07%	16.60%
MOLX	68.25%	0.00%	0.00%	0.00%	16.19%
NTRS	74.02%	0.00%	0.00%	0.00%	26.30%
ODP	58.20%	-38.82%	-0.28%	31.70%	15.48%
ORCL	84.13%	120.70%	33.72%	112.29%	64.77%
OXY	70.77%	71.55%	5.00%	13.38%	10.01%
PBI	67.78%	-28.74%	-3.27%	8.60%	14.61%
PCAR	59.04%	28.49%	5.41%	14.66%	17.12%
PCL	71.78%	0.00%	0.00%	0.00%	17.22%
PD	44.97%	34.60%	3.79%	30.98%	2.05%
PEP	64.11%	21.94%	5.17%	12.08%	12.67%
PFE	78.79%	20.63%	2.24%	5.00%	30.29%
PG	83.58%	0.00%	0.00%	0.00%	17.18%
PGN	72.11%	1.30%	0.23%	4.24%	12.30%
PGR	79.53%	-15.63%	0.72%	21.21%	26.58%
PLL	58.28%	-2.33%	-0.05%	6.56%	5.08%
PPG	70.60%	6.27%	1.00%	26.27%	9.66%
RSH	64.18%	-22.18%	6.00%	41.44%	25.69%
S	60.11%	20.15%	2.55%	16.70%	17.65%

SBC	62.11%	45.70%	10.88%	23.26%	12.82%
SHW	61.97%	0.00%	0.00%	0.00%	10.08%
SLB	63.11%	-17.43%	-0.48%	5.20%	13.51%
SO	67.55%	183.42%	10.45%	17.46%	16.01%
SUNW	70.55%	-28.76%	13.83%	44.41%	61.27%
SWY	78.72%	223.88%	2.66%	7.21%	36.38%
T	42.92%	-36.34%	-2.35%	10.58%	-3.05%
TXU	54.55%	84.75%	6.93%	14.11%	9.79%
TYC	60.76%	228.30%	28.43%	35.99%	29.03%
UTX	81.36%	5.51%	1.92%	11.40%	24.67%
VZ	72.56%	0.00%	0.00%	0.00%	11.66%
WFC	80.17%	0.00%	0.00%	0.00%	19.25%
WMB	81.25%	-42.82%	1.24%	10.39%	18.88%
WMI	64.70%	140.05%	13.34%	90.11%	18.09%
XOM	62.21%	58.68%	7.31%	13.67%	11.58%
XRX	70.37%	0.00%	0.00%	0.00%	7.04%

DATOS SEMANALES

TABLA N°8.5: APLICACIÓN DEL OSCILADOR RSI PARA 5 SEMANAS

(PERIODO 1992-2002)

RSI ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	63.87%	85.37%	9.56%	9.59%	19.26%
AEP	56.99%	48.04%	7.87%	21.61%	10.53%
AES	60.65%	-73.54%	9.99%	46.02%	30.71%
AMAT	76.99%	-1.42%	4.22%	34.18%	56.76%
AMR	36.99%	99.87%	16.24%	18.17%	0.68%
AOL	65.38%	341.72%	36.02%	63.13%	121.37%
APC	57.20%	189.14%	14.79%	26.59%	16.68%
AT	76.34%	25.35%	5.36%	20.76%	14.47%
AXP	70.32%	327.95%	17.82%	24.92%	24.40%
BA	58.49%	56.10%	6.89%	19.31%	14.19%
BAC	58.92%	102.43%	8.95%	13.56%	17.81%
BC	61.72%	41.27%	3.55%	19.26%	11.95%
BK	80.65%	165.03%	9.86%	16.19%	27.64%
BLS	58.06%	99.19%	10.98%	15.33%	14.23%
BMET	65.81%	78.53%	10.24%	24.10%	25.05%
BUD	73.12%	129.29%	8.74%	13.60%	19.60%
C	65.59%	435.56%	19.49%	24.17%	33.07%
CAT	69.46%	29.17%	4.29%	9.22%	17.59%
CD	58.92%	130.30%	12.36%	26.65%	14.25%

CIN	63.23%	150.56%	7.11%	8.60%	10.62%
CL	57.20%	216.80%	12.17%	11.14%	20.07%
CMCSK	50.32%	487.55%	27.36%	38.68%	27.27%
COP	53.76%	123.11%	9.89%	12.17%	12.60%
COST	60.65%	165.75%	14.12%	15.72%	23.29%
CSC	68.60%	24.63%	4.55%	21.82%	19.97%
CSCO	73.12%	539.06%	22.07%	35.38%	56.37%
CTAS	80.00%	61.55%	5.61%	16.91%	22.43%
CTL	60.43%	9.44%	1.14%	14.32%	16.29%
CUM	51.83%	17.01%	0.97%	18.06%	5.60%
CVX	72.90%	22.65%	3.13%	8.25%	13.60%
CZN	52.47%	-39.14%	-0.65%	29.77%	-0.46%
D	55.91%	104.32%	8.11%	12.12%	11.81%
DD	78.49%	-24.86%	-1.89%	8.83%	12.12%
DELL	79.57%	169.56%	19.61%	48.45%	92.60%
DG	75.48%	26.73%	5.09%	23.90%	26.36%
DIS	87.31%	-57.58%	-7.90%	14.70%	8.79%
DTE	69.25%	13.97%	0.76%	9.33%	10.99%
DUK	70.75%	44.63%	7.49%	15.20%	13.27%
EK	48.17%	40.65%	2.77%	19.42%	3.54%
EMC	68.17%	148.91%	27.54%	64.43%	70.86%
EP	65.81%	-38.31%	2.04%	18.03%	17.34%
EXC	63.23%	24.97%	4.51%	17.38%	15.36%
F	46.67%	88.22%	8.04%	26.63%	5.27%
FDC	71.40%	54.86%	6.41%	18.06%	21.19%
FRE	77.42%	84.45%	7.64%	22.56%	24.79%
G	59.14%	33.95%	4.99%	14.28%	13.63%
GE	72.26%	188.69%	11.27%	13.30%	24.84%
GT	54.19%	-56.16%	-0.32%	28.57%	1.73%
GWW	85.59%	-52.31%	-5.64%	10.25%	9.97%
HD	59.14%	115.18%	13.42%	28.50%	22.79%
HMA	74.41%	124.96%	13.22%	24.06%	35.81%
HON	63.23%	56.75%	6.10%	12.04%	14.17%
HPQ	59.14%	18.78%	7.35%	24.37%	17.91%
INTC	76.34%	94.56%	8.66%	28.88%	39.33%
JNJ	68.39%	129.30%	10.74%	14.80%	24.14%
JPM	55.91%	110.29%	10.41%	16.88%	18.85%
KEY	70.11%	3.18%	0.93%	16.94%	10.89%
KMB	54.84%	90.37%	8.75%	13.27%	13.84%
KO	49.68%	206.83%	11.87%	14.46%	14.48%
KR	80.65%	46.19%	8.61%	19.26%	24.55%
LMT	60.00%	91.37%	7.49%	15.07%	19.84%
MCD	58.28%	76.61%	7.02%	12.65%	12.13%
MDT	69.25%	97.29%	8.28%	16.79%	33.35%
MER	56.77%	127.09%	15.02%	28.11%	28.88%
MMM	42.58%	301.85%	16.04%	15.78%	13.32%
MO	48.60%	134.36%	14.32%	33.30%	16.76%

MOLX	50.75%	260.33%	18.26%	36.61%	16.36%
NTRS	83.44%	6.99%	-0.05%	15.97%	26.50%
ODP	49.03%	63.59%	6.52%	20.42%	15.81%
ORCL	71.83%	58.68%	15.49%	42.74%	65.42%
OXY	78.92%	-14.53%	0.83%	18.41%	10.14%
PBI	58.49%	76.78%	9.13%	21.28%	14.77%
PCAR	60.00%	66.93%	7.85%	18.19%	17.28%
PCL	68.82%	125.89%	11.77%	22.78%	17.41%
PD	38.49%	172.88%	15.46%	31.32%	12.13%
PEP	58.92%	39.94%	4.87%	10.63%	12.80%
PFE	66.88%	106.66%	8.18%	13.11%	30.58%
PG	72.69%	62.08%	5.17%	13.86%	17.30%
PGN	62.15%	121.82%	9.29%	8.89%	12.40%
PGR	68.60%	122.08%	12.08%	24.41%	26.92%
PLL	40.86%	105.34%	8.50%	12.33%	5.17%
PPG	56.34%	142.35%	10.78%	18.38%	9.79%
RSH	69.89%	-10.78%	4.63%	26.91%	25.78%
S	69.89%	25.63%	3.08%	19.34%	17.90%
SBC	79.78%	-1.88%	2.47%	17.18%	12.99%
SHW	56.13%	130.52%	10.86%	15.33%	10.18%
SLB	62.80%	29.86%	3.27%	20.64%	13.64%
SO	72.90%	80.67%	5.38%	9.43%	16.12%
SUNW	68.60%	37.55%	16.08%	46.56%	62.43%
SWY	77.63%	172.97%	14.11%	21.24%	36.71%
T	39.57%	-46.32%	-3.05%	22.80%	-2.96%
TXU	73.12%	3.37%	-1.28%	11.49%	9.86%
TYC	67.31%	251.38%	17.82%	18.41%	29.42%
UTX	77.85%	197.86%	12.69%	15.26%	24.96%
VZ	53.55%	107.69%	10.51%	17.44%	11.82%
WFC	74.62%	119.52%	5.90%	8.83%	19.42%
WMB	71.61%	-13.71%	4.94%	25.40%	19.22%
WMI	64.73%	4.32%	4.61%	22.45%	18.26%
XOM	76.77%	6.62%	1.94%	6.08%	11.72%
XRX	70.75%	-74.95%	-9.45%	27.50%	7.12%

**TABLA N°8.6: APLICACIÓN DEL OSCILADOR RSI PARA 10 SEMANAS
(PERIODO 1992-2002)**

RSI ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	74.13%	83.25%	5.49%	7.55%	19.34%
AEP	61.96%	31.88%	5.08%	17.80%	10.35%
AES	59.35%	-58.80%	20.75%	58.98%	30.52%

AMAT	61.96%	204.34%	24.86%	48.51%	55.63%
AMR	59.13%	-66.87%	-3.47%	17.06%	0.55%
AOL	55.22%	1042.72%	88.03%	177.25%	119.35%
APC	54.78%	107.06%	12.56%	27.37%	16.27%
AT	72.83%	13.48%	0.02%	6.32%	14.20%
AXP	55.87%	464.76%	22.05%	23.94%	23.92%
BA	66.52%	53.99%	6.52%	13.42%	14.29%
BAC	70.22%	13.91%	0.12%	1.00%	17.79%
BC	69.13%	15.74%	2.26%	19.16%	11.89%
BK	77.83%	11.37%	3.20%	19.77%	27.60%
BLS	62.39%	31.71%	4.03%	8.00%	14.19%
BMET	63.48%	65.19%	8.56%	23.69%	25.75%
BUD	74.13%	101.60%	8.49%	11.58%	19.94%
C	72.39%	169.02%	8.36%	22.45%	32.14%
CAT	63.91%	56.13%	5.28%	12.96%	17.11%
CD	61.74%	-23.32%	-0.20%	23.64%	12.72%
CIN	72.83%	27.59%	0.79%	9.70%	10.48%
CL	65.43%	120.97%	9.75%	11.75%	20.31%
CMCSK	51.09%	247.88%	18.22%	29.33%	26.23%
COP	80.00%	3.54%	0.62%	6.86%	12.38%
COST	72.83%	-10.22%	0.44%	2.83%	23.34%
CSC	54.35%	49.57%	10.34%	28.18%	19.77%
CSCO	65.87%	430.26%	35.23%	60.35%	56.13%
CTAS	77.17%	62.69%	6.16%	16.19%	22.59%
CTL	66.74%	-30.58%	-1.97%	9.75%	16.29%
CUM	45.65%	5.99%	2.64%	21.86%	5.39%
CVX	76.96%	3.72%	1.69%	5.83%	13.37%
CZN	39.13%	-38.58%	-1.53%	18.17%	-0.82%
D	74.35%	27.97%	3.21%	9.17%	11.57%
DD	71.74%	-23.95%	-1.48%	13.19%	12.23%
DELL	69.78%	1228.76%	47.47%	79.98%	94.06%
DG	62.17%	172.65%	16.05%	33.11%	25.49%
DIS	68.91%	-13.64%	-0.81%	17.00%	8.75%
DTE	57.83%	40.21%	4.28%	9.43%	10.96%
DUK	71.30%	10.25%	4.68%	15.36%	13.11%
EK	49.13%	-7.18%	0.17%	20.22%	3.13%
EMC	64.57%	67.45%	16.62%	46.64%	67.03%
EP	73.04%	-45.30%	4.14%	24.39%	17.15%
EXC	59.43%	-7.74%	-0.50%	9.75%	15.20%
F	50.43%	-17.52%	1.01%	8.00%	4.77%
FDC	57.39%	337.39%	19.35%	26.61%	20.94%
FRE	76.74%	21.43%	2.09%	4.90%	24.76%
G	60.43%	42.61%	4.18%	11.53%	13.74%
GE	79.78%	79.34%	6.71%	13.67%	24.79%
GT	62.61%	-64.87%	-3.61%	25.12%	1.24%
GWW	63.70%	-1.89%	1.55%	14.00%	10.02%
HD	73.04%	-15.99%	-0.74%	6.93%	23.10%

HMA	80.00%	71.82%	8.30%	37.43%	35.44%
HON	66.09%	0.48%	0.81%	12.81%	13.91%
HPQ	62.61%	-49.50%	-1.82%	24.78%	17.81%
INTC	59.35%	332.82%	27.15%	50.84%	38.55%
JNJ	73.04%	73.41%	7.88%	14.18%	24.55%
JPM	61.09%	35.62%	5.79%	25.51%	18.60%
KEY	38.04%	221.76%	14.66%	20.59%	10.87%
KMB	71.52%	9.49%	0.87%	6.24%	14.01%
KO	61.30%	35.34%	3.57%	15.23%	14.54%
KR	76.74%	60.64%	9.36%	19.57%	24.07%
LMT	69.35%	49.52%	5.23%	18.73%	19.63%
MCD	69.35%	0.00%	0.00%	0.00%	12.02%
MDT	82.61%	-10.08%	0.05%	4.47%	33.99%
MER	69.78%	-13.93%	1.93%	15.39%	28.15%
MMM	62.83%	73.35%	7.05%	14.97%	13.39%
MO	59.57%	109.00%	12.14%	32.00%	17.36%
MOLX	55.87%	92.97%	5.82%	9.38%	16.18%
NTRS	77.83%	-32.37%	-2.31%	6.00%	26.65%
ODP	43.70%	245.99%	20.46%	36.28%	15.18%
ORCL	67.39%	39.10%	11.82%	37.16%	63.92%
OXY	54.13%	154.85%	10.86%	15.91%	9.99%
PBI	65.87%	35.93%	5.32%	15.03%	14.78%
PCAR	54.78%	18.77%	5.00%	17.80%	17.24%
PCL	55.65%	80.86%	7.05%	11.92%	16.86%
PD	49.35%	27.54%	3.07%	18.47%	2.19%
PEP	71.52%	6.84%	0.18%	6.78%	12.90%
PFE	76.09%	19.19%	3.18%	11.66%	31.07%
PG	78.70%	47.35%	4.87%	9.70%	17.47%
PGN	52.83%	162.33%	12.26%	13.27%	12.20%
PGR	56.30%	441.06%	21.07%	20.49%	26.22%
PLL	48.26%	4.64%	2.90%	9.33%	5.28%
PPG	71.52%	5.86%	1.38%	13.38%	9.69%
RSH	52.17%	77.84%	12.88%	27.84%	25.59%
S	42.83%	336.04%	18.70%	26.89%	17.12%
SBC	66.30%	47.36%	5.58%	15.78%	12.79%
SHW	54.13%	58.88%	6.53%	17.46%	9.99%
SLB	51.52%	52.40%	5.75%	17.89%	13.81%
SO	86.52%	23.07%	1.54%	10.72%	15.98%
SUNW	70.00%	45.33%	14.64%	44.44%	63.34%
SWY	64.57%	318.94%	19.12%	21.26%	36.17%
T	40.61%	-32.89%	-2.14%	17.80%	-3.41%
TXU	58.48%	88.63%	7.24%	18.57%	9.75%
TYC	78.04%	15.01%	10.28%	24.76%	29.51%
UTX	63.26%	331.72%	19.69%	25.53%	24.94%
VZ	67.17%	-12.86%	2.79%	10.86%	11.52%
WFC	69.57%	78.39%	5.79%	10.30%	19.19%
WMB	80.00%	-87.00%	-3.10%	14.53%	18.59%

WMI	72.71%	-36.34%	-4.07%	10.77%	18.41%
XOM	71.52%	23.68%	1.05%	5.29%	11.80%
XRX	72.17%	-78.91%	-7.39%	32.22%	7.26%

TABLA N°8.7: APLICACIÓN DEL OSCILADOR RSI PARA 15 SEMANAS

(PERIODO 1992-2002)

RSI ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	76.26%	54.56%	3.30%	6.48%	19.46%
AEP	66.15%	0.00%	0.00%	0.00%	10.21%
AES	52.31%	-43.13%	28.63%	64.18%	30.42%
AMAT	62.64%	41.82%	11.59%	25.87%	55.18%
AMR	56.70%	-78.41%	-5.72%	23.37%	0.46%
AOL	66.81%	916.40%	57.77%	135.08%	117.88%
APC	39.34%	50.34%	9.25%	29.60%	15.79%
AT	77.36%	-35.11%	-2.01%	7.14%	14.13%
AXP	50.11%	477.24%	24.71%	25.42%	23.66%
BA	68.57%	25.32%	4.02%	12.57%	14.37%
BAC	71.21%	0.00%	0.00%	0.00%	18.00%
BC	63.30%	24.20%	2.83%	14.80%	11.81%
BK	84.40%	-3.42%	-0.39%	1.41%	27.76%
BLS	69.67%	0.00%	0.00%	0.00%	14.15%
BMET	71.43%	0.00%	0.00%	0.00%	26.35%
BUD	90.77%	0.00%	0.00%	0.00%	20.31%
C	68.13%	180.06%	9.76%	23.64%	31.54%
CAT	72.75%	0.00%	0.00%	0.00%	16.59%
CD	73.19%	-57.74%	-6.93%	20.05%	11.71%
CIN	70.55%	21.43%	-0.17%	3.46%	10.40%
CL	78.90%	30.11%	3.46%	9.95%	20.54%
CMCSK	60.88%	22.13%	9.51%	30.56%	25.12%
COP	81.54%	0.00%	0.00%	0.00%	12.15%
COST	72.75%	1.00%	0.00%	0.00%	23.70%
CSC	74.51%	15.20%	3.97%	11.87%	19.66%
CSCO	65.27%	384.45%	26.01%	49.41%	56.08%
CTAS	54.95%	329.16%	19.33%	16.97%	22.75%
CTL	64.18%	-11.06%	0.40%	6.24%	16.44%
CUM	40.22%	58.02%	8.74%	29.21%	4.99%
CVX	82.42%	0.00%	0.00%	0.00%	13.09%
CZN	43.08%	-49.06%	-4.07%	11.87%	-1.17%
D	56.92%	110.05%	9.64%	13.64%	11.44%
DD	73.83%	-26.76%	-2.18%	11.53%	12.30%

DELL	72.53%	802.31%	48.71%	104.26%	95.47%
DG	78.90%	-24.46%	-2.83%	7.42%	24.94%
DIS	65.71%	-15.29%	1.35%	6.32%	8.84%
DTE	66.37%	0.00%	0.00%	0.00%	11.02%
DUK	67.03%	0.00%	0.00%	0.00%	12.99%
EK	63.52%	-39.94%	-4.30%	16.19%	2.54%
EMC	54.51%	406.12%	45.06%	76.75%	64.92%
EP	78.68%	-66.98%	-2.88%	25.55%	17.05%
EXC	51.87%	36.75%	3.67%	9.54%	15.20%
F	51.87%	-13.02%	1.45%	9.54%	4.19%
FDC	65.27%	105.14%	11.69%	24.08%	20.82%
FRE	50.99%	475.82%	24.57%	25.48%	24.91%
G	61.76%	46.47%	5.07%	17.66%	13.85%
GE	75.16%	50.36%	4.94%	8.37%	24.78%
GT	54.51%	-58.85%	-3.89%	21.91%	0.98%
GWW	63.96%	26.22%	3.29%	18.71%	10.17%
HD	64.62%	42.20%	4.81%	14.59%	23.43%
HMA	70.33%	183.87%	16.18%	42.86%	35.12%
HON	69.89%	-6.58%	1.40%	14.53%	13.73%
HPQ	71.43%	27.01%	-3.61%	9.59%	17.73%
INTC	73.41%	8.65%	0.26%	8.12%	38.16%
JNJ	63.52%	13.74%	2.37%	8.06%	24.95%
JPM	66.15%	0.00%	0.00%	0.00%	18.69%
KEY	54.95%	0.00%	0.00%	0.00%	10.96%
KMB	71.65%	16.40%	1.86%	5.20%	14.26%
KO	65.59%	0.00%	0.00%	0.00%	14.64%
KR	76.92%	41.49%	9.21%	27.60%	23.93%
LMT	73.41%	0.00%	0.00%	0.00%	19.33%
MCD	69.01%	0.00%	0.00%	0.00%	11.92%
MDT	82.20%	-2.79%	0.56%	3.87%	34.63%
MER	63.74%	36.22%	9.16%	27.02%	27.78%
MMM	75.82%	0.00%	0.00%	0.00%	13.47%
MO	64.40%	53.25%	9.89%	35.45%	17.86%
MOLX	67.03%	66.14%	8.52%	34.15%	16.04%
NTRS	53.85%	304.64%	22.41%	30.38%	26.95%
ODP	51.21%	17.75%	5.39%	28.30%	14.77%
ORCL	57.58%	767.52%	44.12%	72.48%	62.74%
OXY	61.32%	105.16%	8.04%	13.64%	9.98%
PBI	63.93%	-15.80%	-0.37%	11.87%	14.84%
PCAR	50.99%	42.84%	6.91%	15.72%	17.22%
PCL	45.93%	155.75%	11.84%	14.00%	16.12%
PD	61.10%	-30.27%	-4.68%	12.37%	2.19%
PEP	70.99%	0.00%	0.00%	0.00%	13.07%
PFE	78.24%	15.80%	3.01%	11.75%	31.56%
PG	85.71%	0.00%	0.00%	0.00%	17.65%
PGN	73.41%	0.00%	0.00%	0.00%	12.14%
PGR	58.68%	263.92%	17.98%	23.54%	25.88%

PLL	51.21%	0.00%	0.00%	0.00%	5.40%
PPG	76.26%	0.00%	0.00%	0.00%	9.60%
RSH	54.51%	106.93%	20.43%	48.17%	25.15%
S	60.00%	23.00%	2.99%	11.70%	16.35%
SBC	69.01%	0.00%	0.00%	0.00%	12.60%
SHW	62.64%	35.87%	4.86%	16.31%	9.87%
SLB	51.21%	31.37%	6.10%	17.38%	13.95%
SO	58.90%	147.55%	12.09%	17.26%	15.87%
SUNW	71.21%	30.25%	33.28%	74.01%	64.28%
SWY	84.62%	-49.12%	-2.56%	9.00%	35.94%
T	45.49%	-37.05%	-1.98%	14.63%	-3.71%
TXU	68.81%	-3.90%	-0.40%	3.16%	9.72%
TYC	66.81%	389.25%	23.02%	29.26%	29.58%
UTX	79.34%	42.70%	5.91%	17.80%	24.72%
VZ	60.88%	19.84%	7.83%	20.15%	11.24%
WFC	64.62%	164.25%	11.69%	19.44%	19.26%
WMB	79.34%	0.00%	0.00%	0.00%	18.21%
WMI	73.63%	-32.49%	-4.48%	11.05%	18.84%
XOM	74.73%	-13.07%	-0.28%	5.66%	11.85%
XRX	76.70%	-73.76%	-7.40%	26.70%	7.28%

TABLA N°8.8: APLICACIÓN DEL OSCILADOR RSI PARA 20 SEMANAS
(PERIODO 1992-2002)

RSI	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	60.67%	202.67%	14.45%	16.03%	19.62%
AEP	65.78%	0.00%	0.00%	0.00%	10.08%
AES	65.11%	-89.79%	-7.48%	22.05%	30.41%
AMAT	54.44%	501.80%	49.55%	25.69%	54.60%
AMR	57.11%	-79.62%	-6.46%	23.39%	0.41%
AOL	77.33%	133.18%	53.12%	140.05%	117.74%
APC	65.11%	0.00%	0.00%	0.00%	15.40%
AT	73.11%	0.00%	0.00%	0.00%	14.09%
AXP	80.00%	0.00%	0.00%	0.00%	23.56%
BA	68.22%	0.00%	0.00%	0.00%	14.37%
BAC	72.00%	0.00%	0.00%	0.00%	18.22%
BC	65.56%	0.00%	0.00%	0.00%	11.80%
BK	83.33%	0.00%	0.00%	0.00%	27.93%
BLS	69.33%	0.00%	0.00%	0.00%	14.17%
BMET	72.22%	0.00%	0.00%	0.00%	27.04%
BUD	91.78%	0.00%	0.00%	0.00%	20.68%
C	50.22%	748.45%	30.97%	35.86%	31.17%

CAT	72.44%	0.00%	0.00%	0.00%	16.08%
CD	70.89%	-40.08%	-3.25%	20.59%	10.89%
CIN	73.78%	-7.12%	-0.79%	3.32%	10.31%
CL	76.89%	30.16%	3.74%	11.83%	10.68%
CMCSK	59.78%	37.19%	10.60%	31.92%	24.38%
COP	81.33%	0.00%	0.00%	0.00%	12.08%
COST	72.44%	0.00%	0.00%	0.00%	23.91%
CSC	74.22%	13.15%	3.75%	11.36%	19.61%
CSCO	56.67%	883.77%	38.14%	50.98%	55.98%
CTAS	80.00%	22.66%	3.46%	9.80%	22.80%
CTL	64.67%	0.00%	0.00%	0.00%	16.70%
CUM	52.00%	-38.62%	-1.49%	19.26%	4.66%
CVX	82.22%	0.00%	0.00%	0.00%	12.90%
CZN	42.67%	-53.44%	-5.16%	11.31%	-1.54%
D	47.33%	169.37%	12.63%	16.88%	11.34%
DD	70.00%	0.00%	0.00%	0.00%	12.41%
DELL	67.78%	1355.17%	62.12%	118.50%	97.01%
DG	72.22%	0.00%	0.00%	0.00%	24.25%
DIS	65.56%	0.00%	0.00%	0.00%	8.91%
DTE	66.44%	0.00%	0.00%	0.00%	11.14%
DUK	66.67%	0.00%	0.00%	0.00%	12.89%
EK	51.33%	-2.12%	-0.40%	2.65%	2.03%
EMC	63.11%	165.22%	41.23%	85.56%	63.52%
EP	67.11%	-65.69%	-3.10%	11.87%	17.06%
EXC	54.00%	8.71%	1.22%	4.69%	15.19%
F	53.78%	-37.86%	-1.74%	6.24%	3.67%
FDC	68.44%	86.58%	9.64%	25.63%	20.77%
FRE	83.56%	0.00%	0.00%	0.00%	25.09%
G	70.00%	-6.54%	0.50%	16.31%	13.96%
GE	74.44%	26.22%	6.78%	22.83%	24.78%
GT	60.89%	-71.78%	-6.09%	21.28%	0.61%
GWW	61.78%	13.50%	4.31%	20.47%	10.29%
HD	71.33%	14.72%	0.06%	1.00%	23.89%
HMA	82.67%	0.00%	0.00%	0.00%	34.85%
HON	67.33%	5.12%	1.99%	7.00%	13.54%
HPQ	70.44%	0.00%	0.00%	0.00%	17.74%
INTC	75.33%	0.00%	0.00%	0.00%	38.09%
JNJ	83.56%	15.38%	2.57%	8.19%	25.37%
JPM	65.78%	0.00%	0.00%	0.00%	18.78%
KEY	55.56%	0.00%	0.00%	0.00%	11.12%
KMB	77.56%	0.00%	0.00%	0.00%	14.56%
KO	66.44%	0.00%	0.00%	0.00%	14.74%
KR	71.78%	61.14%	11.64%	28.34%	23.80%
LMT	73.11%	0.00%	0.00%	0.00%	19.25%
MCD	68.85%	0.00%	0.00%	0.00%	11.87%
MDT	82.89%	0.00%	0.00%	0.00%	35.15%
MER	63.11%	67.22%	12.75%	31.91%	27.51%

MMM	75.56%	0.00%	0.00%	0.00%	13.50%
MO	71.56%	0.42%	5.48%	34.87%	18.39%
MOLX	67.11%	0.00%	0.00%	0.00%	15.87%
NTRS	70.67%	0.00%	0.00%	0.00%	27.28%
ODP	76.67%	0.00%	0.00%	0.00%	14.34%
ORCL	64.00%	245.66%	45.00%	113.39%	61.46%
OXY	67.33%	56.01%	4.49%	11.00%	10.04%
PBI	60.44%	37.99%	5.42%	13.60%	14.91%
PCAR	56.22%	30.39%	5.67%	14.04%	17.28%
PCL	61.78%	31.86%	4.50%	9.90%	15.33%
PD	62.44%	-44.58%	-4.88%	12.33%	2.15%
PEP	71.78%	0.00%	0.00%	0.00%	13.25%
PFE	70.89%	89.47%	9.03%	19.13%	32.02%
PG	85.56%	0.00%	0.00%	0.00%	17.79%
PGN	73.11%	0.00%	0.00%	0.00%	12.12%
PGR	52.00%	351.57%	21.97%	28.71%	25.67%
PLL	51.56%	0.00%	0.00%	0.00%	5.51%
PPG	76.00%	0.00%	0.00%	0.00%	9.51%
RSH	61.78%	72.94%	17.82%	47.01%	24.79%
S	63.33%	0.00%	0.00%	0.00%	15.74%
SBC	68.67%	0.00%	0.00%	0.00%	12.48%
SHW	56.22%	36.16%	4.20%	11.45%	9.86%
SLB	59.56%	0.00%	0.00%	0.00%	14.08%
SO	60.00%	176.04%	11.49%	16.25%	15.79%
SUNW	60.00%	101.50%	48.34%	89.84%	65.18%
SWY	85.11%	-55.91%	-4.11%	9.49%	35.85%
T	40.00%	39.14%	4.34%	10.39%	-3.85%
TXU	64.44%	0.00%	0.00%	0.00%	9.73%
TYC	65.56%	418.00%	24.12%	29.51%	29.71%
UTX	79.11%	42.70%	5.97%	17.89%	24.59%
VZ	71.56%	-36.73%	-1.29%	5.57%	11.10%
WFC	80.00%	0.00%	0.00%	0.00%	19.34%
WMB	79.11%	0.00%	0.00%	0.00%	18.01%
WMI	72.00%	0.00%	0.00%	0.00%	19.25%
XOM	72.89%	-11.24%	-0.05%	5.66%	11.95%
XRX	70.81%	0.00%	0.00%	0.00%	7.23%

ANEXO 2: APLICACIÓN DEL OSCILADOR %R.

DATOS DIARIOS:

TABLA N°8.9: **APLICACIÓN DEL OSCILADOR %R PARA 5 DIAS.**

(PERIODO 1992-2002)

%R	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	45.25%	587.88%	21.48%	16.55%	18.92%
AEP	67.94%	-13.81%	2.41%	13.42%	10.54%
AES	60.28%	-57.20%	21.00%	47.77%	30.48%
AMAT	51.43%	1799.72%	38.51%	36.67%	57.10%
AMR	35.18%	28.37%	11.82%	29.41%	0.62%
AOL	78.37%	407.02%	25.45%	51.22%	121.05%
APC	60.67%	69.34%	8.43%	22.41%	16.67%
AT	42.69%	273.63%	15.03%	12.04%	14.51%
AXP	68.73%	619.11%	24.00%	22.34%	24.44%
BA	46.00%	187.91%	14.26%	25.87%	14.02%
BAC	64.70%	146.64%	9.50%	18.92%	17.64%
BC	71.26%	-25.63%	0.64%	24.47%	11.91%
BK	50.06%	577.77%	25.53%	30.66%	27.93%
BLS	14.30%	796.35%	31.02%	24.12%	14.07%
BMET	23.54%	5640.40%	59.63%	44.51%	24.34%

BUD	32.27%	831.12%	28.39%	19.44%	19.26%
C	43.04%	1189.05%	32.79%	34.54%	33.34%
CAT	56.52%	131.34%	8.86%	15.03%	17.57%
CD	46.39%	351.37%	19.57%	30.71%	14.80%
CIN	79.63%	5.01%	1.71%	13.30%	10.61%
CL	61.71%	224.11%	13.69%	12.61%	19.75%
CMCSK	34.43%	989.53%	33.86%	37.34%	27.33%
COP	69.09%	135.38%	9.48%	10.44%	12.52%
COST	66.15%	365.88%	20.88%	26.66%	23.00%
CSC	59.70%	260.32%	18.96%	30.68%	19.80%
CSCO	71.66%	410.79%	24.14%	33.73%	55.70%
CTAS	27.33%	1202.53%	35.97%	26.40%	22.08%
CTL	44.24%	155.62%	11.66%	18.08%	16.10%
CUM	45.98%	-6.10%	2.33%	20.78%	5.62%
CVX	60.58%	206.47%	12.56%	16.00%	13.53%
CZN	22.76%	55.53%	10.62%	16.40%	-0.31%
D	63.83%	125.21%	10.54%	17.12%	11.81%
DD	46.48%	325.25%	15.99%	20.57%	11.91%
DELL	79.25%	215.72%	15.70%	32.40%	90.86%
DG	70.80%	157.81%	12.72%	36.22%	26.55%
DIS	56.46%	133.07%	9.36%	14.04%	8.66%
DTE	68.38%	28.94%	3.97%	15.39%	10.92%
DUK	62.42%	46.46%	9.13%	14.90%	13.24%
EK	62.46%	-2.94%	0.64%	24.27%	3.66%
EMC	66.34%	1103.61%	43.81%	59.77%	42.34%
EP	61.84%	75.44%	13.32%	31.50%	17.18%
EXC	65.29%	27.78%	6.10%	22.91%	15.37%
F	34.91%	55.00%	9.82%	26.83%	5.25%
FDC	61.23%	566.21%	22.57%	25.53%	21.04%
FRE	51.34%	776.15%	26.44%	16.88%	24.57%
G	57.68%	154.04%	11.84%	18.22%	13.37%
GE	66.06%	380.77%	18.81%	14.04%	24.59%
GT	68.70%	-62.23%	-6.23%	24.12%	1.75%
GWW	83.18%	-10.51%	-0.88%	16.43%	9.89%
HD	61.40%	186.39%	17.49%	24.82%	22.28%
HMA	65.65%	246.44%	25.15%	49.28%	35.66%
HON	45.61%	320.18%	14.60%	22.34%	14.09%
HPQ	52.07%	437.89%	23.46%	21.79%	17.66%
INTC	67.00%	723.50%	23.93%	21.89%	39.36%
JNJ	55.28%	378.02%	18.72%	16.16%	23.60%
JPM	56.97%	278.05%	14.85%	18.25%	18.72%
KEY	58.57%	84.64%	6.37%	18.36%	10.82%
KMB	36.27%	347.21%	17.45%	15.10%	13.60%
KO	57.94%	180.97%	13.33%	18.76%	14.24%
KR	50.18%	682.10%	28.55%	23.30%	24.55%
LMT	41.31%	417.94%	19.56%	30.12%	19.84%
MCD	44.22%	216.36%	14.57%	72.39%	12.03%

MDT	67.87%	594.52%	25.04%	19.62%	32.63%
MER	54.21%	520.02%	26.31%	30.71%	28.97%
MMM	29.50%	509.56%	19.99%	13.08%	13.20%
MO	48.53%	128.15%	12.73%	18.19%	16.20%
MOLX	25.45%	1387.54%	33.32%	25.34%	16.30%
NTRS	48.40%	318.67%	33.40%	36.48%	26.16%
ODP	60.09%	12.98%	3.76%	27.78%	15.78%
ORCL	49.58%	6905.02%	59.28%	59.39%	65.42%
OXY	54.62%	97.50%	8.21%	17.72%	10.04%
PBI	40.39%	666.49%	22.45%	18.33%	14.60%
PCAR	28.51%	803.38%	31.24%	31.73%	17.15%
PCL	44.66%	282.16%	14.93%	12.81%	17.41%
PD	81.46%	-52.00%	-6.16%	20.15%	1.99%
PEP	19.69%	847.42%	29.16%	16.25%	12.62%
PFE	55.67%	919.39%	29.66%	24.04%	29.96%
PG	45.20%	271.00%	16.81%	17.83%	17.07%
PGN	76.93%	14.53%	1.71%	10.10%	12.46%
PGR	81.11%	1.64%	3.16%	26.81%	27.01%
PLL	32.94%	143.76%	13.51%	17.20%	4.99%
PPG	66.10%	69.06%	5.20%	16.19%	9.69%
RSH	79.83%	37.46%	6.22%	25.96%	25.79%
S	39.88%	385.09%	21.11%	26.10%	18.14%
SBC	30.23%	344.65%	20.21%	16.82%	13.01%
SHW	44.23%	113.10%	9.67%	19.87%	10.16%
SLB	43.92%	243.06%	16.44%	24.27%	13.40%
SO	42.01%	268.77%	14.05%	11.05%	16.09%
SUNW	61.49%	185.01%	27.00%	39.80%	61.08%
SWY	75.34%	112.66%	15.04%	22.58%	36.65%
T	34.34%	13.46%	1.55%	22.20%	-2.77%
TXU	73.97%	-24.60%	-0.68%	13.78%	9.87%
TYC	85.12%	7.10%	12.31%	24.49%	28.99%
UTX	60.13%	420.43%	19.63%	19.47%	24.58%
VZ	33.79%	364.49%	19.44%	19.16%	11.84%
WFC	48.11%	384.32%	17.67%	16.58%	17.41%
WMB	53.96%	-26.80%	17.06%	26.04%	19.30%
WMI	59.03%	68.11%	6.69%	28.91%	18.31%
XOM	11.55%	935.86%	31.02%	19.16%	11.53%
XRX	52.92%	-17.65%	4.51%	29.98%	6.95%

TABLA N°8.10: **APLICACIÓN DEL OSCILADOR %R PARA 10 DIAS.**

(PERIODO 1992-2002)

%R	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS

ACCION					
ADP	54.91%	282.61%	19.95%	14.04%	18.95%
AEP	66.53%	-0.63%	2.82%	9.49%	10.50%
AES	56.35%	-57.27%	14.60%	41.04%	30.43%
AMAT	44.97%	4175.82%	55.14%	51.38%	56.82%
AMR	20.56%	35.65%	15.19%	30.58%	0.59%
AOL	59.96%	1033.44%	38.66%	45.09%	120.78%
APC	52.65%	101.79%	9.56%	15.43%	16.60%
AT	58.30%	137.57%	11.78%	10.58%	14.43%
AXP	62.66%	382.47%	21.78%	26.55%	24.37%
BA	63.05%	40.12%	6.39%	22.63%	14.04%
BAC	61.64%	161.95%	10.55%	17.38%	17.63%
BC	76.33%	-53.97%	-5.73%	22.11%	11.90%
BK	53.96%	582.60%	25.16%	25.38%	27.37%
BLS	30.84%	419.92%	21.27%	13.82%	14.07%
BMET	24.43%	2017.99%	42.38%	31.34%	24.52%
BUD	36.90%	686.81%	25.38%	16.34%	19.32%
C	50.54%	306.08%	20.52%	26.25%	33.15%
CAT	49.54%	256.80%	14.29%	15.91%	17.46%
CD	35.12%	187.40%	16.85%	32.43%	14.47%
CIN	63.96%	76.92%	6.41%	13.00%	10.58%
CL	70.18%	148.28%	9.93%	16.64%	19.80%
CMCSK	34.09%	803.66%	31.96%	31.29%	27.19%
COP	64.72%	97.73%	7.74%	8.54%	12.50%
COST	43.21%	1033.61%	33.38%	30.23%	23.00%
CSC	39.51%	384.58%	23.40%	30.50%	19.76%
CSCO	68.57%	776.58%	30.05%	35.65%	55.64%
CTAS	35.91%	760.71%	28.78%	17.32%	22.40%
CTL	59.23%	151.68%	12.49%	24.47%	16.07%
CUM	50.49%	-13.78%	0.55%	16.82%	5.58%
CVX	24.95%	334.61%	18.60%	12.69%	13.48%
CZN	31.98%	-19.75%	0.73%	11.70%	-0.37%
D	72.57%	71.28%	6.15%	11.18%	11.77%
DD	50.08%	196.60%	12.93%	19.34%	11.93%
DELL	76.81%	299.95%	20.95%	34.61%	91.12%
DG	68.34%	231.78%	14.92%	30.69%	26.38%
DIS	55.22%	129.16%	9.67%	17.32%	8.66%
DTE	77.66%	28.28%	2.78%	14.42%	10.92%
DUK	67.09%	49.99%	7.46%	9.80%	13.22%
EK	35.19%	70.58%	6.89%	24.35%	3.59%
EMC	70.73%	334.01%	36.23%	64.85%	41.43%
EP	64.73%	56.38%	13.23%	24.41%	17.11%
EXC	70.62%	17.15%	2.15%	15.75%	15.34%
F	40.03%	49.48%	7.44%	22.47%	5.21%
FDC	58.45%	887.17%	26.37%	30.64%	21.00%
FRE	57.46%	683.07%	24.00%	14.76%	24.57%
G	62.05%	101.34%	9.74%	19.77%	13.42%

GE	71.07%	170.63%	13.46%	17.64%	24.57%
GT	65.32%	-54.51%	-6.33%	21.19%	1.68%
GWW	65.61%	-13.58%	-0.30%	14.04%	9.87%
HD	59.76%	110.95%	11.94%	22.02%	22.32%
HMA	60.86%	673.39%	24.30%	25.81%	35.61%
HON	51.75%	189.17%	13.07%	20.54%	14.03%
HPQ	49.68%	275.95%	20.71%	23.52%	17.63%
INTC	76.74%	67.99%	9.01%	24.10%	39.22%
JNJ	71.73%	211.61%	14.75%	11.31%	23.70%
JPM	50.15%	199.38%	13.88%	18.65%	18.70%
KEY	63.06%	53.72%	5.22%	14.76%	10.78%
KMB	54.17%	138.58%	10.56%	15.30%	13.65%
KO	64.68%	40.46%	5.65%	15.81%	14.27%
KR	48.91%	600.53%	26.23%	25.61%	24.44%
LMT	58.06%	149.12%	11.58%	23.30%	19.81%
MCD	50.68%	183.85%	12.61%	14.00%	12.01%
MDT	63.37%	450.80%	24.72%	19.80%	32.75%
MER	51.81%	325.20%	25.43%	43.98%	28.84%
MMM	41.73%	289.05%	15.42%	14.93%	13.20%
MO	66.17%	-17.18%	3.86%	20.37%	16.30%
MOLX	44.33%	813.28%	28.61%	24.27%	16.26%
NTRS	42.03%	382.38%	27.76%	39.01%	26.21%
ODP	61.16%	-20.60%	2.22%	26.44%	15.65%
ORCL	63.01%	2170.25%	47.10%	74.81%	65.18%
OXY	80.31%	-12.01%	-1.00%	12.00%	10.03%
PBI	52.21%	165.23%	11.07%	14.70%	14.59%
PCAR	46.81%	335.35%	17.79%	23.04%	17.13%
PCL	55.85%	128.95%	9.16%	9.17%	17.35%
PD	62.48%	-35.18%	-1.94%	17.83%	2.00%
PEP	24.99%	521.88%	24.03%	18.14%	12.64%
PFE	64.73%	286.93%	16.90%	16.49%	30.07%
PG	69.74%	89.86%	9.15%	19.65%	17.10%
PGN	6.72%	72.99%	6.27%	12.73%	12.41%
PGR	84.20%	39.23%	4.75%	28.84%	26.87%
PLL	33.41%	49.93%	8.90%	14.73%	5.02%
PPG	65.36%	55.65%	4.69%	10.54%	9.67%
RSH	76.88%	71.93%	8.59%	23.62%	25.76%
S	49.21%	183.73%	12.60%	23.09%	17.99%
SBC	41.71%	177.97%	14.99%	13.08%	12.95%
SHW	50.98%	215.68%	14.10%	20.81%	10.41%
SLB	38.23%	415.80%	21.49%	21.52%	13.43%
SO	60.23%	213.93%	12.10%	12.73%	16.06%
SUNW	67.57%	298.97%	28.16%	44.96%	61.23%
SWY	71.51%	206.06%	17.52%	21.21%	36.57%
T	37.97%	7.92%	3.31%	23.11%	-2.88%
TXU	65.08%	2.60%	0.72%	10.05%	9.85%
TYC	68.99%	125.86%	15.49%	27.17%	28.99%

UTX	58.29%	360.76%	22.09%	25.77%	24.62%
VZ	20.37%	307.76%	19.95%	18.52%	11.79%
WFC	54.32%	365.51%	16.09%	11.96%	19.36%
WMB	61.54%	-8.56%	15.58%	24.52%	19.15%
WMI	72.05%	-49.24%	-2.96%	25.88%	18.04%
XOM	42.13%	239.55%	14.95%	9.90%	11.55%
XRX	52.11%	36.70%	5.94%	27.39%	6.98%

TABLA N°8.11:   **APLICACIÓN DEL OSCILADOR %R PARA 15 DIAS.**

                (PERIODO 1992-2002)

%R	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	52.84%	260.94%	20.71%	22.00%	19.98%
AEP	66.84%	-19.51%	1.01%	9.38%	10.46%
AES	60.91%	-59.79%	9.60%	40.16%	30.40%
AMAT	61.25%	1298.68%	38.78%	42.68%	56.59%
AMR	32.78%	38.04%	13.03%	27.51%	0.57%
AOL	64.84%	770.30%	41.12%	64.53%	120.51%
APC	43.23%	186.43%	14.57%	17.66%	16.56%
AT	65.15%	29.62%	5.48%	10.34%	14.36%
AXP	63.88%	171.22%	13.76%	23.24%	24.30%
BA	65.48%	36.46%	5.25%	19.24%	14.05%
BAC	69.64%	127.15%	10.01%	18.87%	17.62%
BC	68.49%	-22.96%	-0.99%	21.35%	11.90%
BK	62.42%	273.42%	20.26%	30.22%	27.36%
BLS	41.94%	304.99%	18.06%	14.80%	14.06%
BMET	38.43%	872.17%	31.69%	27.84%	24.68%
BUD	3.27%	336.99%	17.44%	10.72%	19.38%
C	63.62%	356.50%	19.20%	21.49%	32.97%
CAT	50.61%	272.85%	15.19%	17.61%	17.38%
CD	42.39%	61.91%	9.91%	30.77%	14.21%
CIN	66.30%	104.80%	7.36%	15.39%	10.56%
CL	78.18%	137.28%	9.52%	15.23%	19.86%
CMCSK	30.54%	900.81%	36.66%	34.57%	27.07%

COP	47.76%	144.84%	11.61%	10.05%	12.48%
COST	59.41%	431.27%	22.72%	28.14%	23.02%
CSC	61.76%	91.94%	11.29%	27.55%	19.73%
CSCO	71.81%	456.90%	22.29%	30.30%	55.62%
CTAS	42.39%	601.40%	25.33%	19.90%	22.15%
CTL	45.35%	188.98%	12.89%	20.81%	16.50%
CUM	47.63%	-42.86%	-3.22%	16.06%	5.55%
CVX	38.08%	253.06%	16.08%	12.29%	13.45%
CZN	55.56%	-65.19%	-8.11%	12.41%	-0.45%
D	74.10%	10.77%	1.80%	10.68%	11.73%
DD	52.36%	238.70%	12.60%	14.46%	11.95%
DELL	69.61%	379.10%	23.90%	35.86%	21.40%
DG	48.64%	405.54%	19.38%	29.03%	26.23%
DIS	56.46%	113.11%	10.37%	16.37%	8.66%
DTE	69.90%	26.49%	3.44%	13.11%	10.90%
DUK	60.41%	49.90%	7.22%	11.58%	13.18%
EK	9.88%	313.65%	17.17%	26.02%	3.50%
EMC	78.36%	83.01%	25.58%	59.53%	70.70%
EP	58.06%	72.08%	15.57%	25.67%	17.06%
EXC	70.38%	-8.82%	-1.02%	12.00%	15.31%
F	43.92%	30.25%	6.41%	21.59%	5.16%
FDC	54.16%	776.40%	23.77%	26.38%	20.97%
FRE	53.02%	614.15%	23.24%	15.43%	24.56%
G	63.88%	83.01%	10.14%	20.95%	13.46%
GE	67.92%	264.16%	16.50%	16.22%	24.56%
GT	62.14%	-69.61%	-7.13%	22.32%	1.61%
GWW	63.00%	23.42%	3.01%	14.21%	9.87%
HD	52.05%	342.81%	21.48%	20.02%	22.38%
HMA	63.17%	490.07%	24.73%	29.41%	35.57%
HON	52.87%	217.02%	12.92%	19.34%	13.99%
HPQ	56.38%	212.06%	15.13%	18.95%	17.63%
INTC	79.72%	-7.77%	1.66%	20.20%	39.08%
JNJ	41.83%	326.19%	21.85%	17.58%	23.80%
JPM	68.53%	49.87%	5.25%	15.56%	18.65%
KEY	62.58%	12.58%	2.19%	16.73%	10.74%
KMB	81.15%	30.21%	3.37%	12.77%	13.69%
KO	62.90%	46.89%	5.66%	14.07%	14.30%
KR	55.71%	502.69%	22.21%	23.32%	24.34%
LMT	63.61%	60.86%	6.81%	26.50%	19.79%
MCD	50.51%	175.18%	12.35%	11.79%	11.98%
MDT	67.21%	398.63%	22.68%	13.42%	32.90%
MER	72.00%	68.62%	9.50%	27.29%	28.70%
MMM	55.27%	216.20%	12.01%	15.56%	13.21%
MO	65.51%	-14.83%	5.10%	23.28%	16.46%
MOLX	47.75%	313.98%	16.02%	19.13%	16.23%
NTRS	45.46%	168.34%	23.77%	34.44%	26.26%
ODP	39.63%	20.92%	5.54%	25.51%	15.56%

ORCL	63.72%	826.18%	29.59%	48.74%	64.99%
OXY	84.30%	-9.59%	-0.55%	12.12%	10.02%
PBI	52.57%	200.17%	11.15%	17.92%	14.60%
PCAR	37.46%	442.75%	21.32%	20.76%	17.12%
PCL	66.75%	82.47%	5.95%	10.82%	17.29%
PD	47.68%	-0.95%	1.71%	14.93%	2.02%
PEP	39.13%	242.80%	15.21%	14.32%	12.66%
PFE	69.15%	272.19%	16.48%	14.76%	30.18%
PG	64.03%	141.49%	10.93%	17.23%	17.14%
PGN	57.51%	84.41%	6.54%	13.23%	12.36%
PGR	83.76%	30.50%	6.50%	25.55%	26.74%
PLL	43.15%	21.59%	4.68%	13.67%	5.05%
PPG	52.96%	143.68%	8.94%	13.53%	9.66%
RSH	81.78%	27.63%	6.22%	26.31%	25.72%
S	51.44%	115.08%	8.37%	19.24%	17.82%
SBC	35.97%	183.28%	15.64%	15.75%	12.88%
SHW	43.20%	192.77%	13.29%	19.82%	10.12%
SLB	35.95%	382.02%	20.77%	22.69%	13.47%
SO	47.09%	277.51%	13.71%	11.27%	16.04%
SUNW	71.99%	104.38%	21.56%	47.49%	61.40%
SWY	76.42%	262.27%	19.67%	22.85%	36.47%
T	37.80%	-27.76%	0.33%	22.38%	-2.97%
TXU	62.50%	49.23%	5.00%	13.38%	9.82%
TYC	77.12%	105.71%	15.20%	26.94%	29.01%
UTX	72.69%	170.51%	13.36%	18.47%	24.66%
VZ	27.51%	302.75%	19.07%	18.19%	11.73%
WFC	67.10%	233.18%	13.74%	16.34%	19.30%
WMB	75.07%	59.17%	12.50%	23.11%	19.01%
WMI	60.69%	4.46%	5.13%	29.22%	18.07%
XOM	47.58%	201.69%	13.51%	10.15%	11.56%
XRX	51.51%	14.02%	5.57%	27.28%	7.00%

TABLA N°8.12:   APLICACIÓN DEL OSCILADOR %R PARA 20 DIAS.

(PERIODO 1992-2002)

%R ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	62.18%	165.97%	16.32%	17.75%	19.00%
AEP	66.33%	-3.34%	2.56%	10.77%	10.41%
AES	53.82%	-32.20%	16.12%	40.50%	30.38%
AMAT	60.42%	684.86%	30.65%	37.66%	56.35%
AMR	34.40%	36.18%	13.58%	27.39%	0.55%
AOL	73.19%	443.28%	29.09%	43.54%	120.20%

APC	37.96%	250.88%	18.20%	18.44%	16.53%
AT	66.85%	67.12%	7.20%	10.91%	14.29%
AXP	64.84%	237.06%	16.13%	20.93%	24.22%
BA	52.87%	94.80%	9.98%	18.22%	14.05%
BAC	70.15%	165.09%	11.00%	17.06%	17.62%
BC	66.37%	-27.98%	-1.10%	21.38%	11.90%
BK	61.87%	296.16%	20.32%	29.34%	27.35%
BLS	39.44%	307.55%	19.41%	16.25%	14.05%
BMET	43.45%	540.94%	26.41%	24.23%	24.84%
BUD	58.66%	229.20%	14.08%	10.00%	19.44%
C	64.62%	296.66%	18.21%	23.00%	32.77%
CAT	48.29%	288.36%	16.30%	17.58%	17.30%
CD	48.82%	47.11%	8.99%	30.84%	13.92%
CIN	59.50%	172.97%	11.44%	19.67%	10.53%
CL	70.07%	178.13%	11.59%	15.03%	19.91%
CMCSK	61.73%	115.87%	13.39%	23.81%	26.96%
COP	47.66%	170.19%	12.64%	13.45%	12.47%
COST	57.37%	280.84%	19.06%	25.90%	23.03%
CSC	63.52%	42.70%	7.20%	24.78%	19.70%
CSCO	67.68%	654.05%	28.10%	37.60%	55.60%
CTAS	69.08%	209.77%	14.55%	18.97%	22.21%
CTL	43.73%	204.16%	12.36%	16.61%	16.04%
CUM	36.34%	4.90%	4.08%	19.57%	5.51%
CVX	25.54%	329.91%	18.81%	12.57%	13.45%
CZN	53.77%	-53.05%	-5.80%	16.00%	-0.52%
D	66.92%	40.94%	4.27%	12.29%	11.68%
DD	57.84%	168.03%	8.79%	15.17%	11.96%
DELL	62.93%	1129.27%	36.82%	42.56%	91.69%
DG	49.81%	618.56%	23.05%	23.90%	26.08%
DIS	53.75%	67.78%	9.29%	21.84%	8.66%
DTE	58.68%	53.04%	4.59%	11.53%	10.89%
DUK	58.61%	39.48%	6.87%	10.30%	13.14%
EK	28.96%	133.26%	12.41%	24.60%	3.42%
EMC	74.81%	42.40%	21.50%	52.66%	69.99%
EP	51.95%	66.13%	15.08%	16.70%	17.03%
EXC	76.92%	-38.32%	-5.09%	9.22%	15.26%
F	30.45%	57.41%	9.93%	22.47%	5.10%
FDC	65.69%	625.04%	20.46%	21.59%	20.94%
FRE	640.08%	443.07%	19.30%	14.76%	24.57%
G	54.67%	113.22%	11.34%	15.30%	13.50%
GE	63.36%	240.81%	13.84%	13.04%	24.55%
GT	59.12%	64.15%	-5.04%	24.29%	1.52%
GWW	60.48%	51.69%	5.10%	14.53%	9.88%
HD	58.55%	104.54%	11.67%	15.30%	22.46%
HMA	48.98%	378.78%	24.63%	32.31%	35.55%
HON	46.60%	332.20%	16.68%	20.42%	13.94%
HPQ	55.78%	194.89%	14.10%	20.86%	17.64%

INTC	77.11%	2.80%	3.87%	17.61%	38.95%
JNJ	50.65%	362.52%	21.22%	16.79%	23.91%
JPM	65.18%	29.15%	4.47%	15.33%	18.58%
KEY	62.26%	11.33%	1.36%	14.39%	10.02%
KMB	82.36%	9.24%	1.01%	11.45%	13.73%
KO	60.23%	84.63%	7.29%	13.53%	14.33%
KR	50.58%	576.37%	24.70%	24.98%	24.24%
LMT	64.54%	104.24%	8.96%	25.46%	19.76%
MCD	57.77%	136.88%	10.58%	10.15%	11.97%
MDT	68.11%	336.21%	21.50%	13.30%	33.06%
MER	75.19%	97.51%	9.38%	22.80%	28.56%
MMM	51.67%	251.26%	12.90%	16.97%	13.22%
MO	65.40%	-5.99%	5.74%	22.00%	16.60%
MOLX	46.47%	490.18%	20.92%	23.79%	16.19%
NTRS	47.08%	256.43%	22.49%	32.47%	26.30%
ODP	49.75%	31.35%	9.04%	34.26%	15.48%
ORCL	59.61%	933.14%	32.19%	48.36%	64.77%
OXY	65.94%	39.10%	4.26%	15.52%	10.01%
PBI	52.10%	165.23%	11.07%	14.70%	14.61%
PCAR	32.88%	455.82%	20.45%	23.39%	17.12%
PCL	57.90%	120.47%	7.54%	9.85%	17.22%
PD	56.54%	-8.40%	-1.20%	10.95%	2.05%
PEP	37.32%	18.21%	15.54%	14.56%	12.67%
PFE	69.73%	205.75%	15.19%	13.11%	30.29%
PG	65.81%	137.27%	10.05%	15.33%	17.18%
PGN	58.97%	50.91%	4.67%	11.31%	12.30%
PGR	80.45%	26.50%	5.98%	25.36%	26.58%
PLL	33.50%	30.86%	6.71%	14.66%	5.08%
PPG	57.33%	79.67%	5.59%	13.86%	9.66%
RSH	78.29%	-16.17%	0.65%	22.93%	25.69%
S	54.46%	78.12%	8.17%	21.75%	17.65%
SBC	49.51%	124.65%	11.16%	12.29%	12.82%
SHW	36.85%	221.19%	14.30%	21.75%	10.08%
SLB	33.52%	241.80%	19.26%	24.84%	13.51%
SO	49.46%	236.87%	12.79%	9.54%	16.01%
SUNW	75.00%	84.87%	21.50%	54.79%	61.27%
SWY	70.66%	270.17%	19.65%	20.40%	36.38%
T	35.86%	-21.83%	0.79%	22.78%	-3.05%
TXU	59.23%	50.70%	5.50%	12.53%	9.79%
TYC	75.69%	96.73%	17.36%	29.75%	29.03%
UTX	78.69%	106.80%	7.73%	14.14%	24.67%
VZ	35.86%	227.21%	15.15%	13.64%	11.66%
WFC	61.82%	200.76%	12.98%	12.45%	19.25%
WMB	69.31%	-62.60%	8.58%	24.70%	18.88%
WMI	68.62%	-29.46%	0.43%	25.00%	18.09%
XOM	47.68%	200.94%	14.12%	12.92%	11.58%
XRX	54.90%	-39.48%	1.05%	31.03%	7.04%

DATOS SEMANALES:

TABLA N°8.13:   **APLICACIÓN DEL OSCILADOR %R PARA 5 SEMANAS.**

                              (PERIODO 1992-2002)

%R	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	53.33%	182.91%	15.44%	13.53%	19.26%
AEP	60.43%	10.93%	3.76%	13.78%	10.53%
AES	61.08%	-71.64%	3.72%	33.51%	30.71%
AMAT	70.97%	25.96%	5.60%	21.31%	56.76%
AMR	40.22%	35.03%	14.00%	28.69%	0.68%
AOL	66.88%	243.67%	25.26%	40.40%	121.37%
APC	31.18%	574.17%	24.88%	17.86%	16.68%
AT	61.51%	92.17%	9.33%	14.73%	14.47%
AXP	64.95%	176.33%	14.15%	24.29%	24.40%
BA	44.52%	174.42%	13.17%	18.63%	14.19%
BAC	67.10%	125.81%	7.24%	14.70%	17.81%
BC	73.12%	-29.33%	-2.32%	22.93%	11.95%
BK	63.44%	233.46%	16.72%	18.55%	27.64%
BLS	55.70%	34.60%	5.95%	10.58%	14.23%
BMET	53.55%	364.33%	20.46%	22.02%	25.05%
BUD	64.73%	168.84%	12.46%	11.27%	19.60%
C	78.71%	71.08%	9.28%	19.80%	33.07%
CAT	52.69%	284.69%	18.81%	31.22%	17.59%
CD	63.23%	-34.34%	-0.67%	27.73%	14.25%
CIN	52.90%	146.41%	10.63%	17.86%	10.62%
CL	65.38%	160.27%	11.50%	14.35%	20.07%
CMCSK	55.48%	226.81%	13.75%	20.12%	27.27%
COP	50.11%	192.96%	10.95%	12.08%	12.60%
COST	55.05%	101.50%	11.01%	12.73%	23.29%
CSC	69.68%	51.76%	5.31%	19.00%	19.97%
CSCO	78.92%	12.95%	3.66%	22.23%	56.37%
CTAS	62.58%	320.14%	18.69%	18.41%	22.43%
CTL	43.23%	104.81%	8.98%	12.85%	16.29%
CUM	50.11%	-12.40%	1.86%	15.87%	5.60%
CVX	46.67%	233.78%	13.58%	9.85%	13.60%
CZN	33.98%	-8.75%	1.26%	15.26%	-0.46%
D	63.44%	137.17%	8.00%	11.79%	11.81%
DD	46.45%	256.40%	13.70%	10.68%	12.12%
DELL	57.85%	738.69%	30.92%	40.56%	92.60%
DG	38.92%	1199.95%	30.26%	19.08%	26.36%

DIS	52.04%	39.69%	6.05%	17.23%	8.79%
DTE	59.14%	34.38%	3.56%	12.77%	10.99%
DUK	53.98%	80.44%	9.08%	9.95%	13.27%
EK	31.18%	186.59%	11.74%	14.42%	3.54%
EMC	63.87%	5.02%	14.92%	41.29%	70.86%
EP	63.66%	-25.80%	5.03%	16.03%	17.34%
EXC	67.74%	5.78%	1.59%	15.78%	15.36%
F	41.29%	48.98%	6.42%	17.03%	5.27%
FDC	70.54%	91.75%	9.00%	18.28%	21.19%
FRE	62.15%	459.68%	19.77%	14.11%	24.79%
G	64.73%	47.41%	6.07%	12.96%	13.63%
GE	79.14%	149.09%	10.20%	14.87%	24.84%
GT	56.99%	-56.48%	-2.69%	22.52%	1.73%
GWW	62.80%	31.03%	6.26%	19.13%	9.97%
HD	52.04%	175.81%	15.56%	18.79%	22.79%
HMA	52.47%	362.44%	22.83%	29.61%	35.81%
HON	61.08%	78.34%	6.23%	17.35%	14.17%
HPQ	70.11%	-22.49%	0.49%	21.38%	17.91%
INTC	58.49%	193.60%	15.62%	16.52%	39.33%
JNJ	72.47%	93.22%	10.34%	13.30%	24.14%
JPM	56.56%	40.23%	7.66%	17.55%	18.85%
KEY	59.14%	46.84%	4.41%	12.69%	10.89%
KMB	55.48%	115.38%	9.27%	9.59%	13.84%
KO	50.54%	148.36%	10.32%	12.12%	14.48%
KR	69.03%	177.63%	11.58%	15.56%	24.55%
LMT	73.55%	28.14%	3.20%	17.86%	19.84%
MCD	52.26%	155.31%	11.88%	8.66%	12.13%
MDT	55.70%	426.29%	24.38%	19.00%	33.35%
MER	69.03%	84.23%	12.31%	34.47%	28.88%
MMM	56.56%	188.52%	10.87%	13.19%	13.32%
MO	68.60%	-9.30%	5.01%	27.28%	16.76%
MOLX	36.56%	560.67%	22.79%	20.98%	16.36%
NTRS	52.26%	242.83%	18.31%	21.31%	26.50%
ODP	56.99%	-13.29%	2.42%	25.44%	15.81%
ORCL	73.76%	271.47%	20.01%	36.51%	65.42%
OXY	61.29%	98.55%	6.45%	12.04%	10.14%
PBI	50.97%	152.45%	10.74%	13.75%	14.77%
PCAR	36.99%	310.66%	16.45%	17.15%	17.28%
PCL	61.94%	77.11%	5.85%	13.15%	17.41%
PD	51.18%	27.56%	4.38%	20.47%	12.13%
PEP	54.41%	100.12%	9.33%	13.08%	12.80%
PFE	66.02%	194.04%	16.92%	20.15%	30.58%
PG	70.11%	84.57%	6.45%	16.16%	17.30%
PGN	62.80%	100.24%	6.20%	13.42%	12.40%
PGR	73.55%	85.80%	9.38%	24.27%	26.92%
PLL	36.77%	70.96%	9.54%	14.73%	5.17%
PPG	49.03%	139.84%	8.20%	17.18%	9.79%

RSH	76.34%	-12.08%	0.16%	18.44%	25.78%
S	71.40%	-26.58%	-1.17%	15.33%	17.90%
SBC	47.31%	199.87%	13.97%	11.92%	12.99%
SHW	48.17%	181.69%	13.25%	18.52%	10.18%
SLB	40.86%	189.20%	15.98%	23.04%	13.64%
SO	67.31%	153.62%	9.51%	9.90%	16.12%
SUNW	73.55%	-73.01%	2.12%	34.96%	62.43%
SWY	69.68%	166.29%	16.82%	21.84%	36.71%
T	36.77%	-12.63%	2.86%	24.64%	-2.96%
TXU	56.99%	26.67%	3.96%	10.68%	9.86%
TYC	81.94%	-38.85%	3.95%	21.10%	29.42%
UTX	77.20%	86.70%	8.83%	12.33%	24.96%
VZ	60.00%	53.32%	7.22%	10.77%	11.82%
WFC	75.91%	76.89%	5.99%	10.72%	19.42%
WMB	74.84%	-86.91%	-2.58%	19.95%	19.22%
WMI	65.38%	31.22%	4.71%	21.38%	18.26%
XOM	51.61%	178.52%	12.02%	12.53%	11.72%
XRX	59.57%	-15.28%	3.80%	37.75%	7.12%

TABLA N°8.14:   APLICACIÓN DEL OSCILADOR %R PARA 10 SEMANAS.
(PERIODO 1992-2002)

%R ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	59.35%	106.75%	11.45%	11.00%	19.34%
AEP	55.43%	48.30%	5.85%	13.15%	10.35%
AES	56.74%	-79.18%	2.12%	31.65%	30.52%
AMAT	68.70%	-12.61%	4.29%	24.82%	55.63%
AMR	47.83%	-64.49%	-2.05%	19.10%	0.55%
AOL	64.35%	88.12%	20.28%	38.17%	119.35%
APC	29.13%	691.12%	29.05%	26.76%	16.27%
AT	63.91%	22.87%	5.00%	13.08%	14.20%
AXP	71.30%	75.29%	7.62%	14.70%	23.92%
BA	44.13%	226.98%	15.61%	20.64%	14.29%
BAC	60.00%	137.69%	10.32%	13.08%	17.79%
BC	61.52%	-11.56%	1.59%	22.61%	11.89%
BK	65.43%	128.62%	10.78%	17.03%	27.60%
BLS	50.22%	54.71%	9.10%	12.21%	14.19%
BMET	64.57%	245.57%	16.08%	19.29%	25.75%
BUD	75.65%	79.89%	1.26%	8.25%	19.94%
C	72.39%	85.84%	9.71%	18.19%	32.14%
CAT	60.87%	67.95%	10.59%	25.42%	17.11%
CD	50.43%	31.34%	7.18%	26.61%	12.72%
CIN	59.57%	83.93%	6.90%	14.07%	10.48%

CL	66.74%	132.82%	10.01%	12.00%	20.31%
CMCSK	49.78%	132.60%	12.90%	19.75%	26.23%
COP	58.70%	96.30%	7.97%	10.05%	12.38%
COST	50.65%	90.77%	10.51%	13.53%	23.34%
CSC	53.04%	145.82%	11.46%	20.17%	19.77%
CSCO	81.30%	-31.50%	-1.49%	25.83%	56.13%
CTAS	66.96%	262.59%	17.86%	27.53%	22.59%
CTL	40.87%	105.25%	8.58%	8.54%	16.29%
CUM	47.17%	-10.55%	3.04%	17.94%	5.39%
CVX	50.43%	217.59%	13.06%	9.49%	13.37%
CZN	35.87%	5.87%	2.12%	13.75%	-0.82%
D	67.61%	78.16%	5.43%	11.14%	11.57%
DD	47.61%	205.28%	13.35%	13.19%	12.23%
DELL	61.30%	207.91%	19.37%	35.26%	94.06%
DG	48.70%	467.58%	23.30%	17.61%	25.49%
DIS	62.17%	3.37%	3.65%	13.93%	8.75%
DTE	58.26%	37.54%	4.31%	16.40%	10.96%
DUK	52.83%	158.41%	12.81%	13.38%	13.11%
EK	38.48%	108.11%	6.82%	15.94%	3.13%
EMC	72.39%	-36.72%	9.37%	41.46%	67.03%
EP	57.83%	-27.59%	4.00%	15.07%	17.15%
EXC	58.70%	60.80%	6.13%	16.67%	15.20%
F	42.61%	48.60%	8.42%	19.80%	4.77%
FDC	84.13%	1.20%	2.58%	15.91%	20.94%
FRE	65.43%	292.82%	15.59%	9.80%	24.76%
G	63.48%	43.47%	4.52%	11.31%	13.74%
GE	73.26%	90.73%	7.00%	11.87%	24.79%
GT	67.61%	-72.20%	-6.00%	22.61%	1.24%
GWW	66.74%	7.67%	9.37%	18.33%	10.02%
HD	43.70%	222.42%	17.97%	17.64%	23.10%
HMA	60.43%	318.55%	20.06%	31.26%	35.44%
HON	57.39%	168.25%	13.18%	19.21%	13.91%
HPQ	63.70%	-43.53%	0.22%	23.66%	17.81%
INTC	63.70%	-7.99%	7.51%	23.19%	38.55%
JNJ	75.22%	71.58%	8.06%	11.14%	24.55%
JPM	54.13%	52.15%	7.22%	12.81%	18.60%
KEY	61.30%	22.13%	2.48%	15.72%	10.87%
KMB	49.78%	90.47%	9.71%	12.37%	14.01%
KO	47.38%	214.40%	13.50%	14.07%	14.54%
KR	70.65%	68.31%	9.68%	18.03%	24.07%
LMT	68.48%	8.41%	3.04%	21.31%	19.63%
MCD	47.61%	163.22%	12.74%	8.31%	12.02%
MDT	61.96%	169.84%	17.17%	18.17%	33.99%
MER	61.96%	233.28%	16.89%	23.94%	28.15%
MMM	54.13%	174.94%	10.98%	11.62%	13.39%
MO	61.74%	-23.68%	2.80%	23.87%	17.36%
MOLX	62.17%	63.33%	4.88%	13.34%	16.18%

NTRS	61.52%	98.83%	9.73%	12.25%	26.65%
ODP	42.61%	37.65%	11.58%	34.41%	15.18%
ORCL	73.26%	50.04%	8.87%	25.12%	63.92%
OXY	48.91%	133.25%	9.15%	17.52%	9.99%
PBI	56.74%	73.32%	7.75%	13.96%	14.78%
PCAR	41.09%	72.64%	9.81%	17.89%	17.24%
PCL	55.22%	127.80%	9.72%	12.21%	16.86%
PD	40.87%	78.13%	10.20%	23.17%	2.19%
PEP	40.00%	180.98%	15.25%	13.04%	12.90%
PFE	74.35%	27.48%	5.43%	10.54%	31.07%
PG	74.57%	82.34%	6.62%	15.72%	17.47%
PGN	65.65%	54.34%	3.83%	13.89%	12.20%
PGR	73.04%	50.55%	7.61%	23.11%	26.22%
PLL	31.52%	136.76%	13.39%	20.42%	5.28%
PPG	58.91%	113.27%	7.77%	10.44%	9.69%
RSH	73.48%	-20.24%	2.31%	24.62%	25.59%
S	48.26%	62.65%	6.91%	17.18%	17.12%
SBC	48.48%	115.48%	10.80%	10.49%	12.79%
SHW	51.52%	77.71%	8.59%	15.91%	9.99%
SLB	42.17%	125.17%	12.08%	15.00%	13.81%
SO	57.39%	244.00%	13.31%	11.14%	15.98%
SUNW	62.17%	-48.45%	8.71%	33.12%	63.34%
SWY	79.78%	7.91%	4.96%	14.56%	36.17%
T	37.83%	-44.72%	-4.39%	17.35%	-3.41%
TXU	57.39%	36.83%	5.08%	15.10%	9.75%
TYC	77.83%	-41.28%	2.67%	16.79%	29.51%
UTX	76.96%	61.12%	6.22%	12.53%	24.94%
VZ	71.30%	-16.64%	1.27%	10.20%	11.52%
WFC	52.17%	274.73%	14.61%	11.31%	19.19%
WMB	75.00%	-83.78%	-3.07%	18.84%	18.59%
WMI	53.48%	135.23%	11.00%	23.41%	18.41%
XOM	45.43%	203.51%	12.61%	8.77%	11.80%
XRX	59.13%	-27.27%	6.01%	39.85%	7.26%

TABLA N°8.15:   APLICACIÓN DEL OSCILADOR %R PARA 15 SEMANAS.

(PERIODO 1992-2002)

%R	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	77.36%	29.13%	6.60%	11.75%	19.46%
AEP	59.78%	31.65%	5.17%	13.78%	10.21%
AES	60.44%	-87.17%	1.27%	36.66%	30.42%
AMAT	70.33%	-37.98%	2.00%	24.90%	55.18%
AMR	40.48%	-50.84%	-0.43%	22.02%	0.46%

AOL	69.45%	-33.46%	7.45%	39.29%	117.88%
APC	41.10%	311.43%	16.67%	16.46%	15.79%
AT	61.54%	15.30%	4.36%	8.31%	14.13%
AXP	76.70%	16.14%	2.33%	14.97%	23.66%
BA	48.35%	103.85%	10.70%	20.86%	14.37%
BAC	56.26%	254.12%	15.32%	22.69%	18.00%
BC	62.42%	7.01%	0.89%	18.22%	11.81%
BK	70.11%	191.85%	12.91%	12.21%	27.76%
BLS	49.89%	33.35%	8.31%	12.96%	14.15%
BMET	68.13%	136.60%	13.68%	19.44%	26.35%
BUD	75.38%	59.28%	5.89%	6.40%	20.31%
C	70.55%	84.21%	10.75%	18.00%	31.54%
CAT	57.80%	31.00%	6.07%	18.92%	16.59%
CD	45.05%	112.08%	11.67%	30.03%	11.71%
CIN	68.57%	25.74%	1.60%	7.94%	10.40%
CL	66.15%	158.25%	10.87%	12.96%	20.54%
CMCSK	52.97%	80.60%	8.81%	16.94%	25.12%
COP	61.54%	77.79%	6.81%	9.00%	12.15%
COST	51.87%	120.54%	12.13%	13.15%	23.70%
CSC	66.15%	24.72%	6.38%	24.70%	19.66%
CSCO	81.76%	-53.34%	-2.63%	25.38%	56.08%
CTAS	81.98%	62.13%	6.40%	13.08%	22.75%
CTL	44.18%	57.59%	5.83%	11.96%	16.44%
CUM	64.40%	-57.69%	-3.02%	14.83%	4.99%
CVX	49.67%	185.34%	12.28%	8.94%	13.09%
CZN	34.73%	-7.85%	0.39%	14.28%	-1.17%
D	63.52%	46.98%	3.45%	7.55%	11.44%
DD	63.74%	51.22%	5.22%	14.56%	12.30%
DELL	63.08%	181.27%	17.02%	32.98%	95.47%
DG	52.53%	429.81%	22.33%	22.27%	24.94%
DIS	63.30%	-34.15%	-1.35%	11.92%	8.84%
DTE	65.71%	15.89%	1.73%	11.36%	11.02%
DUK	57.80%	92.16%	8.66%	10.95%	12.99%
EK	56.04%	51.83%	2.70%	11.00%	2.54%
EMC	75.60%	-64.66%	3.46%	36.63%	64.92%
EP	68.35%	-38.24%	0.09%	11.31%	17.05%
EXC	56.92%	39.07%	5.25%	13.75%	15.20%
F	35.60%	36.38%	8.37%	21.05%	4.19%
FDC	56.70%	-3.85%	1.59%	13.86%	20.82%
FRE	63.08%	324.04%	16.71%	12.25%	24.91%
G	73.85%	-8.08%	-1.63%	12.49%	13.85%
GE	73.85%	76.10%	7.09%	11.79%	24.78%
GT	61.10%	-67.67%	-5.44%	20.54%	0.98%
GWW	55.60%	137.43%	11.63%	14.66%	10.17%
HD	50.77%	202.23%	17.07%	17.75%	23.43%
HMA	64.84%	378.03%	19.50%	22.43%	35.12%
HON	57.80%	105.26%	11.15%	16.58%	13.73%

HPQ	57.58%	-20.38%	4.34%	26.66%	17.73%
INTC	58.24%	30.90%	10.12%	23.64%	38.16%
JNJ	70.77%	93.34%	9.16%	10.86%	24.95%
JPM	47.03%	188.19%	13.32%	16.43%	18.69%
KEY	54.07%	29.89%	3.52%	18.00%	10.96%
KMB	54.29%	112.55%	10.02%	12.81%	14.26%
KO	55.16%	97.92%	7.34%	11.00%	14.64%
KR	71.87%	75.64%	7.85%	13.23%	23.93%
LMT	68.79%	8.55%	1.58%	18.44%	19.33%
MCD	51.43%	78.22%	7.22%	7.00%	11.92%
MDT	59.12%	246.28%	20.16%	15.00%	34.63%
MER	61.10%	119.89%	13.79%	23.17%	27.78%
MMM	51.87%	227.95%	12.00%	11.22%	13.47%
MO	55.38%	29.67%	6.96%	22.16%	17.86%
MOLX	35.93%	9.51%	8.11%	14.59%	16.04%
NTRS	71.43%	7.12%	2.11%	10.77%	26.95%
ODP	40.66%	31.68%	13.39%	39.55%	14.77%
ORCL	74.95%	51.33%	7.11%	20.02%	62.74%
OXY	48.57%	144.67%	11.17%	19.97%	9.98%
PBI	65.27%	8.30%	1.88%	12.33%	14.84%
PCAR	50.11%	45.44%	7.22%	17.52%	17.22%
PCL	67.25%	61.32%	5.96%	13.00%	16.12%
PD	32.75%	122.00%	10.35%	23.00%	2.19%
PEP	50.55%	45.39%	6.91%	11.58%	13.07%
PFE	67.69%	74.36%	7.97%	8.83%	31.56%
PG	74.95%	45.42%	4.37%	15.20%	17.65%
PGN	61.98%	51.17%	4.49%	12.21%	12.14%
PGR	63.08%	106.39%	9.75%	22.98%	25.88%
PLL	40.22%	81.34%	7.46%	10.82%	5.40%
PPG	54.24%	197.35%	11.86%	16.25%	9.60%
RSH	65.93%	43.91%	7.73%	28.51%	25.15%
S	46.81%	64.35%	7.04%	17.32%	16.35%
SBC	53.41%	61.90%	10.58%	14.21%	12.60%
SHW	37.36%	201.17%	14.56%	17.06%	9.87%
SLB	63.08%	11.91%	2.75%	16.85%	13.95%
SO	60.66%	156.43%	10.20%	14.46%	15.87%
SUNW	56.48%	-57.19%	7.03%	36.21%	64.28%
SWY	83.30%	-33.95%	-0.95%	12.04%	35.94%
T	46.81%	-66.56%	-8.67%	18.57%	-3.71%
TXU	63.96%	11.88%	2.31%	12.65%	9.72%
TYC	71.21%	-6.96%	7.85%	20.47%	29.58%
UTX	76.26%	37.11%	4.97%	11.70%	24.72%
VZ	56.04%	37.71%	7.99%	12.81%	11.24%
WFC	56.26%	206.88%	12.86%	15.78%	19.26%
WMB	73.41%	-81.13%	-1.47%	18.44%	18.21%
WMI	44.84%	310.27%	19.85%	19.05%	18.84%
XOM	58.46%	81.60%	7.08%	9.17%	11.85%

XRX	59.78%	-43.24%	3.27%	39.42%	7.28%

TABLA N°8.16:   **APLICACIÓN DEL OSCILADOR %R PARA 20 SEMANAS.**
                    (PERIODO 1992-2002)

%R	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	73.56%	18.64%	5.34%	11.22%	19.62%
AEP	61.56%	-3.03%	0.94%	8.60%	10.08%
AES	68.22%	-91.25%	-4.44%	30.40%	30.41%
AMAT	71.78%	-42.16%	0.12%	22.49%	54.60%
AMR	37.33%	-18.83%	5.49%	25.63%	0.41%
AOL	70.44%	-63.38%	-0.99%	24.29%	117.74%
APC	37.78%	287.48%	18.89%	18.95%	15.40%
AT	53.11%	73.74%	9.53%	12.08%	14.09%
AXP	72.67%	46.54%	4.70%	15.23%	23.56%
BA	52.00%	57.34%	5.30%	15.72%	14.37%
BAC	53.11%	143.17%	9.52%	15.59%	18.22%
BC	40.22%	175.30%	13.49%	23.60%	11.80%
BK	60.22%	222.58%	14.04%	16.49%	27.93%
BLS	43.56%	68.15%	11.30%	14.63%	14.17%
BMET	61.11%	166.45%	15.22%	18.17%	27.04%
BUD	83.56%	49.03%	4.69%	6.48%	20.68%
C	67.11%	98.66%	12.06%	21.68%	31.17%
CAT	67.56%	0.22%	2.08%	15.26%	16.08%
CD	40.89%	129.82%	14.14%	33.03%	10.89%
CIN	67.33%	30.40%	2.04%	8.60%	10.31%
CL	59.56%	164.98%	11.17%	9.64%	10.68%
CMCSK	53.56%	62.52%	7.20%	18.14%	24.38%
COP	57.33%	98.03%	9.02%	9.00%	12.08%
COST	58.44%	127.98%	12.92%	19.13%	23.91%
CSC	58.89%	79.31%	12.38%	32.03%	19.61%
CSCO	80.00%	-54.48%	-4.28%	23.13%	55.98%
CTAS	77.33%	92.69%	8.69%	19.16%	22.80%
CTL	45.78%	36.75%	4.99%	11.00%	16.70%
CUM	59.33%	-45.63%	-5.11%	16.88%	4.66%
CVX	46.97%	213.34%	12.99%	7.68%	12.90%
CZN	32.67%	-25.44%	-1.30%	13.45%	-1.54%
D	64.22%	52.17%	3.82%	7.00%	11.34%
DD	58.44%	89.47%	7.53%	14.35%	12.41%
DELL	68.00%	22.31%	7.90%	26.89%	97.01%
DG	57.56%	118.91%	9.62%	13.89%	24.25%
DIS	63.56%	-30.77%	-2.02%	11.14%	8.91%
DTE	61.78%	31.77%	2.55%	11.09%	11.14%

DUK	64.22%	35.92%	4.42%	9.80%	12.89%
EK	52.89%	55.95%	4.20%	11.87%	2.03%
EMC	64.89%	-60.29%	2.28%	35.20%	63.52%
EP	61.56%	-42.67%	0.79%	15.33%	17.06%
EXC	51.11%	55.45%	5.42%	15.30%	15.19%
F	46.44%	34.11%	4.92%	16.55%	3.67%
FDC	67.78%	78.79%	9.99%	22.69%	20.77%
FRE	73.33%	128.33%	10.44%	12.08%	25.09%
G	69.78%	1.91%	-0.66%	12.65%	13.96%
GE	73.11%	38.32%	4.64%	8.94%	24.78%
GT	60.44%	-65.14%	-5.15%	20.22%	0.61%
GWW	55.78%	126.14%	12.10%	19.72%	10.29%
HD	60.22%	91.84%	10.87%	16.64%	23.89%
HMA	77.78%	71.71%	5.44%	21.54%	34.85%
HON	54.89%	129.93%	12.29%	21.12%	13.54%
HPQ	51.33%	4.48%	7.16%	27.40%	17.74%
INTC	63.33%	-1.00%	7.12%	20.93%	38.09%
JNJ	81.56%	62.20%	5.38%	8.00%	25.37%
JPM	46.67%	189.06%	12.38%	15.75%	18.78%
KEY	56.44%	33.56%	2.25%	16.00%	11.12%
KMB	51.33%	159.61%	12.55%	11.62%	14.56%
KO	52.44%	113.82%	6.49%	11.66%	14.74%
KR	79.56%	-16.58%	-0.44%	12.88%	23.80%
LMT	74.44%	-16.76%	-1.17%	18.19%	19.25%
MCD	46.44%	102.66%	7.73%	11.14%	11.87%
MDT	68.22%	117.65%	14.02%	15.20%	35.15%
MER	61.68%	52.55%	8.19%	17.26%	27.51%
MMM	51.56%	197.73%	10.23%	7.62%	13.50%
MO	61.78%	1.12%	4.70%	21.52%	18.39%
MOLX	52.67%	92.02%	6.30%	14.04%	15.87%
NTRS	73.11%	-13.22%	0.27%	9.85%	27.28%
ODP	47.56%	-18.99%	4.55%	29.85%	14.34%
ORCL	76.00%	-29.01%	1.90%	29.33%	61.46%
OXY	40.44%	251.09%	14.83%	17.69%	10.04%
PBI	71.78%	-24.13%	-2.30%	15.33%	14.91%
PCAR	56.89%	30.12%	5.41%	16.73%	17.28%
PCL	52.44%	94.98%	8.36%	13.04%	15.33%
PD	35.56%	105.52%	9.27%	20.47%	2.15%
PEP	46.67%	74.60%	9.30%	12.81%	13.25%
PFE	62.44%	133.46%	11.10%	12.45%	32.02%
PG	76.22%	34.74%	3.46%	14.07%	17.79%
PGN	58.89%	73.48%	5.92%	10.44%	12.12%
PGR	62.89%	81.46%	7.55%	20.25%	25.67%
PLL	35.56%	168.87%	12.54%	16.31%	5.51%
PPG	61.56%	73.53%	6.17%	14.66%	9.51%
RSH	60.44%	69.72%	8.51%	23.60%	24.79%
S	39.11%	142.80%	12.36%	20.57%	15.74%

SBC	57.33%	5.01%	5.14%	12.25%	12.48%
SHW	42.89%	188.18%	12.79%	14.11%	9.86%
SLB	57.11%	19.98%	2.64%	13.15%	14.08%
SO	67.33%	74.16%	5.91%	9.59%	15.79%
SUNW	59.33%	-68.06%	6.88%	39.36%	65.18%
SWY	85.11%	-40.47%	-1.79%	13.19%	35.85%
T	50.67%	-66.82%	-8.70%	20.25%	-3.85%
TXU	68.22%	-0.93%	-1.16%	8.77%	9.73%
TYC	68.89%	34.27%	8.55%	15.91%	29.71%
UTX	78.22%	23.42%	3.31%	8.66%	24.59%
VZ	52.22%	55.13%	10.28%	14.97%	11.10%
WFC	60.67%	146.48%	9.18%	9.54%	19.34%
WMB	69.78%	-82.90%	1.97%	21.73%	18.01%
WMI	45.78%	252.54%	18.38%	28.39%	19.25%
XOM	55.11%	88.25%	7.37%	8.60%	11.95%
XRX	62.89%	-49.05%	3.22%	40.64%	7.23%

ANEXO 3 : APLICACIÓN DEL OSCILADOR %K.

DATOS DIARIOS:

TABLA N°8.17:   APLICACIÓN DEL OSCILADOR %K PARA 5 DIAS.
(PERIODO 1992-2002)

%K	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	42.20%	564.67%	21.00%	16.46%	18.92%
AEP	71.02%	-12.70%	2.52%	13.42%	10.54%
AES	61.76%	-59.89%	20.22%	47.61%	30.48%
AMAT	48.46%	2057.42%	39.87%	39.27%	57.10%
AMR	32.41%	27.07%	11.67%	29.43%	0.62%
AOL	77.06%	403.67%	24.95%	57.45%	121.05%
APC	61.62%	69.34%	8.38%	22.36%	16.67%
AT	43.67%	273.63%	14.97%	12.04%	14.51%
AXP	66.43%	619.11%	23.90%	22.32%	24.44%
BA	47.60%	187.72%	14.11%	25.63%	14.02%
BAC	66.52%	146.36%	9.44%	18.87%	17.64%
BC	70.22%	-25.63%	0.65%	24.45%	11.91%
BK	49.40%	577.77%	25.39%	30.53%	27.93%
BLS	17.20%	796.35%	30.91%	24.00%	14.07%
BMET	22.40%	5582.06%	59.15%	44.27%	24.34%
BUD	30.26%	850.79%	28.52%	19.31%	19.26%
C	47.44%	1078.83%	31.38%	34.38%	33.34%
CAT	60.63%	116.06%	7.97%	14.56%	17.57%

CD	49.49%	334.37%	19.09%	30.95%	14.80%
CIN	81.12%	5.01%	1.70%	13.27%	10.61%
CL	59.44%	224.11%	13.62%	12.61%	19.75%
CMCSK	33.51%	989.53%	33.72%	37.24%	27.33%
COP	64.14%	130.40%	9.20%	10.58%	12.52%
COST	64.55%	313.73%	18.98%	24.92%	23.00%
CSC	54.72%	265.22%	19.09%	30.74%	19.80%
CSCO	67.90%	407.76%	23.53%	33.32%	55.70%
CTAS	28.48%	1188.52%	35.61%	26.25%	22.08%
CTL	45.43%	149.17%	11.27%	17.78%	16.10%
CUM	50.66%	-9.14%	1.94%	20.71%	5.62%
CVX	59.99%	208.47%	12.53%	15.97%	13.53%
CZN	24.70%	48.44%	10.05%	16.61%	-0.31%
D	59.30%	123.55%	10.45%	17.12%	11.81%
DD	49.51%	325.25%	15.90%	20.52%	11.91%
DELL	74.60%	135.64%	10.79%	27.29%	90.86%
DG	70.05%	157.87%	11.71%	36.15%	26.55%
DIS	53.90%	133.07%	9.31%	14.00%	8.66%
DTE	64.77%	29.94%	3.98%	15.33%	10.92%
DUK	60.89%	46.46%	9.09%	14.90%	13.24%
EK	61.27%	-2.94%	0.62%	24.19%	3.66%
EMC	65.77%	1028.07%	42.39%	59.45%	42.34%
EP	59.79%	75.44%	13.26%	31.40%	17.18%
EXC	65.11%	27.78%	6.07%	22.87%	15.37%
F	35.58%	54.94%	9.80%	26.46%	5.25%
FDC	55.89%	605.13%	23.22%	25.34%	21.04%
FRE	51.57%	734.22%	25.94%	16.76%	24.57%
G	51.76%	163.80%	12.04%	18.08%	13.37%
GE	64.02%	380.77%	18.72%	14.00%	24.59%
GT	68.86%	-63.06%	-6.43%	24.06%	1.75%
GWW	81.88%	-10.51%	-0.88%	16.40%	9.89%
HD	56.59%	186.39%	17.39%	24.78%	22.28%
HMA	63.34%	259.18%	25.62%	49.21%	35.66%
HON	45.77%	335.54%	15.01%	22.63%	14.09%
HPQ	49.80%	420.45%	23.20%	21.77%	17.66%
INTC	64.02%	806.92%	24.45%	21.49%	39.36%
JNJ	53.02%	388.37%	18.80%	16.03%	23.60%
JPM	55.16%	278.05%	14.78%	18.19%	18.72%
KEY	56.36%	84.64%	6.33%	18.30%	10.82%
KMB	34.67%	347.21%	17.36%	15.07%	13.60%
KO	56.20%	180.97%	13.28%	18.73%	14.24%
KR	45.90%	701.15%	28.78%	23.47%	24.55%
LMT	45.52%	431.67%	19.72%	29.93%	19.84%
MCD	45.99%	199.37%	13.94%	22.76%	12.03%
MDT	61.98%	577.06%	24.58%	19.62%	32.63%
MER	52.73%	508.44%	26.13%	30.63%	28.97%
MMM	28.44%	489.72%	19.41%	12.57%	13.20%

MO	44.86%	119.27%	12.13%	17.89%	16.20%
MOLX	24.56%	1313.54%	32.82%	25.24%	16.30%
NTRS	49.45%	318.67%	23.25%	36.40%	26.16%
ODP	66.39%	-2.29%	1.86%	25.87%	15.78%
ORCL	46.30%	7307.83%	59.83%	58.57%	65.42%
OXY	53.62%	95.45%	8.21%	17.72%	10.04%
PBI	39.15%	657.29%	22.16%	17.94%	14.60%
PCAR	32.42%	836.67%	31.72%	32.23%	17.15%
PCL	50.53%	282.16%	14.86%	12.77%	17.41%
PD	77.34%	-52.00%	-6.13%	20.15%	1.99%
PEP	18.56%	847.42%	29.01%	16.22%	12.62%
PFE	49.87%	905.19%	29.23%	24.10%	29.96%
PG	49.38%	282.40%	17.11%	17.75%	17.07%
PGN	77.51%	15.85%	1.86%	10.25%	12.46%
PGR	81.52%	-0.62%	2.94%	26.72%	27.01%
PLL	32.85%	141.60%	13.34%	17.18%	4.99%
PPG	63.17%	67.65%	5.10%	16.25%	9.69%
RSH	79.32%	34.98%	5.96%	25.81%	25.79%
S	44.13%	385.09%	21.02%	26.04%	18.14%
SBC	31.22%	344.65%	20.11%	16.82%	13.01%
SHW	46.03%	113.10%	9.64%	19.82%	10.16%
SLB	40.10%	243.06%	16.37%	24.21%	13.40%
SO	48.04%	265.44%	13.87%	11.09%	16.09%
SUNW	59.04%	222.23%	26.65%	39.43%	61.08%
SWY	75.04%	112.66%	14.96%	22.54%	36.65%
T	33.92%	13.46%	1.56%	22.18%	-2.77%
TXU	76.15%	-25.23%	-0.76%	13.82%	9.87%
TYC	83.27%	11.35%	12.79%	24.78%	28.99%
UTX	63.48%	430.64%	19.66%	19.44%	24.58%
VZ	36.07%	354.73%	19.08%	18.92%	11.84%
WFC	49.25%	378.10%	17.51%	16.55%	17.41%
WMB	51.10%	-26.80%	16.98%	26.02%	19.30%
WMI	56.38%	88.27%	10.44%	30.13%	18.31%
XOM	10.67%	923.44%	30.71%	19.26%	11.53%
XRX	52.80%	-17.65%	4.47%	29.88%	6.95%

TABLA N°8.18: **APLICACIÓN DEL OSCILADOR %K PARA 10 DIAS.**

         (PERIODO 1992-2002)

%K ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	54.26%	282.61%	19.84%	14.00%	18.95%
AEP	66.89%	-1.23%	2.73%	9.38%	10.50%
AES	55.46%	-58.33%	14.40%	40.98%	30.43%

AMAT	43.97%	4126.95%	54.65%	50.93%	56.82%
AMR	20.46%	35.65%	15.12%	30.55%	0.59%
AOL	57.60%	923.33%	38.40%	47.70%	120.78%
APC	52.39%	101.79%	9.51%	15.39%	16.60%
AT	53.40%	137.57%	11.73%	10.54%	14.43%
AXP	63.31%	382.47%	21.68%	26.48%	24.37%
BA	65.30%	37.82%	6.21%	22.58%	14.04%
BAC	57.78%	161.95%	10.52%	17.32%	17.63%
BC	76.48%	-53.97%	-5.70%	22.07%	11.90%
BK	51.41%	551.16%	24.36%	25.16%	27.37%
BLS	31.11%	415.12%	21.11%	13.86%	14.07%
BMET	21.65%	1996.46%	42.05%	31.26%	24.52%
BUD	34.53%	686.81%	25.24%	16.28%	19.32%
C	55.99%	291.87%	20.13%	26.32%	33.15%
CAT	52.05%	249.42%	13.96%	15.78%	17.46%
CD	39.35%	187.40%	16.81%	32.39%	14.47%
CIN	64.46%	76.05%	6.37%	12.96%	10.58%
CL	67.14%	148.28%	9.89%	16.61%	19.80%
CMCSK	36.24%	797.50%	31.68%	31.13%	27.19%
COP	62.73%	97.73%	7.72%	8.54%	12.50%
COST	40.79%	1033.61%	33.21%	30.17%	23.00%
CSC	45.16%	384.58%	23.28%	30.38%	19.76%
CSCO	64.65%	856.39%	31.81%	36.12%	55.64%
CTAS	37.21%	751.73%	28.47%	17.23%	22.40%
CTL	52.70%	165.78%	12.69%	24.41%	16.07%
CUM	55.55%	-13.78%	0.55%	16.79%	5.58%
CVX	28.65%	334.61%	18.51%	12.65%	13.48%
CZN	33.33%	-21.08%	0.54%	11.70%	-0.37%
D	69.64%	71.28%	6.13%	11.18%	11.77%
DD	48.08%	191.48%	12.61%	19.00%	11.93%
DELL	63.89%	351.48%	21.59%	33.24%	91.12%
DG	67.55%	259.00%	15.12%	31.00%	26.38%
DIS	52.74%	129.16%	9.71%	17.26%	8.66%
DTE	74.64%	28.28%	2.76%	14.39%	10.92%
DUK	64.74%	46.76%	7.19%	9.95%	13.22%
EK	36.65%	70.58%	6.85%	24.27%	3.59%
EMC	66.58%	481.94%	37.82%	64.27%	41.43%
EP	61.69%	56.38%	13.17%	24.37%	17.11%
EXC	68.88%	15.48%	2.14%	15.72%	15.34%
F	40.26%	46.73%	7.19%	22.27%	5.21%
FDC	57.34%	887.17%	26.28%	30.59%	21.00%
FRE	52.79%	656.49%	23.40%	14.53%	24.57%
G	63.28%	101.24%	9.69%	19.72%	13.42%
GE	68.89%	170.63%	13.39%	17.58%	24.57%
GT	62.25%	-55.05%	-6.45%	20.93%	1.68%
GWW	65.18%	-13.58%	-0.30%	14.04%	9.87%
HD	58.00%	111.50%	11.90%	21.98%	22.32%

HMA	60.12%	463.40%	24.29%	25.77%	35.61%
HON	54.31%	189.17%	13.00%	20.49%	14.03%
HPQ	48.76%	274.88%	20.58%	23.45%	17.63%
INTC	73.09%	80.04%	9.38%	24.06%	39.22%
JNJ	68.48%	211.61%	14.68%	11.31%	23.70%
JPM	47.59%	194.88%	13.64%	18.47%	18.70%
KEY	60.88%	53.72%	5.20%	14.73%	10.78%
KMB	50.04%	138.58%	10.51%	15.26%	13.65%
KO	62.25%	45.02%	6.08%	16.31%	14.27%
KR	49.67%	622.41%	26.49%	25.38%	24.44%
LMT	60.21%	149.12%	11.53%	23.22%	19.81%
MCD	49.67%	172.18%	12.17%	13.89%	12.01%
MDT	59.11%	454.78%	24.78%	20.49%	32.75%
MER	52.67%	348.43%	25.77%	43.65%	28.84%
MMM	42.78%	289.06%	15.35%	14.90%	13.20%
MO	68.88%	-20.40%	3.28%	19.87%	16.30%
MOLX	39.68%	813.28%	28.48%	24.17%	16.26%
NTRS	39.96%	382.88%	27.61%	38.94%	26.21%
ODP	63.40%	-16.38%	2.88%	26.55%	15.65%
ORCL	61.33%	2363.55%	46.77%	74.92%	65.18%
OXY	78.26%	-10.29%	-1.02%	11.96%	10.03%
PBI	40.96%	459.95%	18.71%	18.41%	14.59%
PCAR	26.73%	371.05%	18.67%	22.74%	17.13%
PCL	62.66%	126.78%	9.01%	9.17%	17.35%
PD	63.62%	-35.31%	-1.96%	17.80%	2.00%
PEP	22.85%	521.88%	23.92%	18.11%	12.64%
PFE	57.49%	286.15%	18.60%	16.46%	30.07%
PG	73.62%	89.86%	9.11%	19.60%	17.10%
PGN	62.35%	71.39%	6.15%	12.77%	12.41%
PGR	84.97%	38.78%	4.70%	19.77%	26.87%
PLL	34.25%	49.93%	8.85%	14.73%	5.02%
PPG	67.24%	55.65%	4.67%	10.54%	9.67%
RSH	75.48%	71.93%	8.58%	23.62%	25.76%
S	55.38%	183.73%	12.55%	23.04%	17.99%
SBC	40.74%	177.97%	14.92%	13.08%	12.95%
SHW	44.72%	231.14%	14.92%	20.52%	10.41%
SLB	34.26%	415.80%	21.40%	21.49%	13.43%
SO	61.05%	213.93%	12.05%	12.69%	16.06%
SUNW	61.11%	308.76%	27.28%	42.39%	61.23%
SWY	68.17%	221.39%	18.01%	20.95%	36.57%
T	36.87%	7.92%	3.30%	23.11%	-2.88%
TXU	65.13%	3.41%	0.81%	10.00%	9.85%
TYC	69.13%	125.86%	15.39%	27.13%	28.99%
UTX	61.80%	360.76%	21.97%	25.71%	24.62%
VZ	21.83%	328.43%	20.30%	18.44%	11.79%
WFC	51.22%	367.07%	16.08%	11.92%	19.36%
WMB	57.23%	-8.92%	15.46%	24.47%	19.15%

WMI	61.77%	-28.00%	0.20%	26.48%	18.04%
XOM	37.69%	240.37%	14.92%	9.95%	11.55%
XRX	43.55%	41.22%	6.24%	27.53%	6.98%

TABLA N°8.19:   APLICACIÓN DEL OSCILADOR %K PARA 15 DIAS.

(PERIODO 1992-2002)

%K	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	56.86%	263.11%	20.43%	21.79%	19.98%
AEP	66.71%	-19.51%	1.00%	9.33%	10.46%
AES	56.88%	-59.79%	9.54%	40.07%	30.40%
AMAT	60.54%	1107.37%	36.78%	40.99%	56.59%
AMR	54.10%	38.04%	13.22%	27.50%	0.57%
AOL	59.06%	938.14%	42.24%	69.50%	120.51%
APC	46.12%	186.43%	14.51%	17.64%	16.56%
AT	66.81%	29.62%	5.46%	10.30%	14.36%
AXP	66.99%	171.22%	13.64%	23.17%	24.30%
BA	64.33%	29.07%	5.16%	19.18%	14.05%
BAC	63.31%	127.15%	9.98%	18.81%	17.62%
BC	71.42%	-22.96%	-0.97%	21.33%	11.90%
BK	61.63%	290.84%	20.55%	30.12%	27.36%
BLS	41.81%	303.16%	17.93%	14.80%	14.06%
BMET	35.61%	872.17%	31.52%	27.75%	24.68%
BUD	53.30%	336.99%	17.35%	10.68%	19.38%
C	63.82%	356.50%	19.13%	21.49%	32.97%
CAT	51.73%	270.43%	15.05%	17.55%	17.38%
CD	48.69%	60.63%	9.78%	30.69%	14.21%
CIN	64.24%	104.80%	7.34%	15.36%	10.56%
CL	74.11%	137.28%	9.49%	15.20%	19.86%
CMCSK	35.52%	799.43%	35.18%	35.34%	27.07%
COP	48.74%	144.84%	11.56%	10.05%	12.48%
COST	59.57%	431.27%	22.60%	28.05%	23.02%

CSC	64.92%	83.20%	10.67%	27.42%	19.73%
CSCO	70.81%	456.38%	22.53%	30.22%	55.62%
CTAS	43.27%	597.87%	25.13%	19.80%	22.15%
CTL	40.72%	205.17%	13.10%	20.76%	16.50%
CUM	52.79%	-42.86%	-3.21%	16.00%	5.55%
CVX	40.14%	261.34%	16.11%	12.21%	13.45%
CZN	56.76%	-63.37%	-7.93%	12.12%	-0.45%
D	73.87%	10.77%	1.80%	10.63%	11.73%
DD	48.14%	238.70%	12.56%	14.42%	11.95%
DELL	63.95%	344.59%	22.50%	34.18%	21.40%
DG	48.03%	401.71%	19.24%	29.07%	26.23%
DIS	51.91%	113.11%	10.33%	16.34%	8.66%
DTE	67.32%	26.49%	3.43%	13.08%	10.90%
DUK	58.28%	49.90%	7.19%	11.58%	13.18%
EK	12.10%	313.65%	17.09%	26.06%	3.50%
EMC	75.76%	111.33%	25.21%	58.87%	70.70%
EP	55.18%	72.08%	15.49%	25.65%	17.06%
EXC	68.54%	-9.29%	-1.07%	11.96%	15.31%
F	40.83%	30.25%	6.39%	21.54%	5.16%
FDC	51.71%	776.40%	23.68%	26.31%	20.97%
FRE	50.82%	614.15%	23.13%	15.39%	24.56%
G	63.51%	51.80%	10.00%	20.88%	13.46%
GE	66.34%	277.92%	16.90%	16.19%	24.56%
GT	62.96%	-69.61%	-7.08%	22.32%	1.61%
GWW	62.93%	23.42%	3.00%	14.21%	9.87%
HD	48.12%	342.81%	21.36%	20.00%	22.38%
HMA	61.59%	482.11%	25.09%	29.26%	35.57%
HON	52.35%	217.02%	12.87%	19.31%	13.99%
HPQ	56.18%	210.37%	14.97%	18.87%	17.63%
INTC	76.22%	-7.40%	1.70%	20.15%	39.08%
JNJ	49.31%	326.19%	21.74%	17.52%	23.80%
JPM	62.37%	49.87%	5.25%	15.56%	18.65%
KEY	62.69%	12.58%	2.58%	16.70%	10.74%
KMB	76.83%	30.21%	3.35%	12.73%	13.69%
KO	59.68%	46.89%	5.64%	14.07%	14.30%
KR	54.24%	502.69%	22.12%	23.28%	24.34%
LMT	64.11%	60.86%	6.80%	26.42%	19.79%
MCD	49.73%	175.18%	12.30%	11.79%	11.98%
MDT	60.26%	389.84%	22.40%	13.60%	32.90%
MER	72.81%	68.62%	9.46%	27.22%	28.70%
MMM	55.58%	216.20%	11.96%	15.52%	13.21%
MO	68.41%	-10.07%	5.62%	23.09%	16.46%
MOLX	44.11%	313.98%	15.98%	19.13%	16.23%
NTRS	47.10%	268.34%	23.64%	34.38%	26.26%
ODP	47.76%	15.64%	5.07%	25.53%	15.56%
ORCL	60.10%	954.13%	32.72%	50.93%	64.99%
OXY	78.74%	-8.93%	-0.45%	12.12%	10.02%

PBI	51.55%	187.44%	10.52%	17.58%	14.60%
PCAR	39.52%	442.75%	21.22%	20.71%	17.12%
PCL	70.37%	42.47%	5.96%	10.77%	17.29%
PD	49.60%	-0.95%	1.71%	14.93%	2.02%
PEP	35.16%	242.80%	15.14%	14.28%	12.66%
PFE	62.27%	272.19%	16.39%	14.73%	30.18%
PG	64.97%	141.49%	10.88%	17.20%	17.14%
PGN	55.18%	84.41%	6.51%	13.19%	12.36%
PGR	85.51%	30.50%	6.46%	25.48%	26.74%
PLL	43.76%	27.73%	5.24%	13.75%	5.05%
PPG	56.49%	143.68%	8.90%	13.53%	9.66%
RSH	79.01%	27.63%	6.21%	26.31%	25.72%
S	57.71%	115.08%	8.35%	19.21%	17.82%
SBC	38.44%	183.28%	15.57%	15.72%	12.88%
SHW	38.75%	207.10%	13.82%	19.62%	10.12%
SLB	32.48%	382.02%	20.68%	22.65%	13.47%
SO	50.20%	277.51%	13.65%	11.22%	16.04%
SUNW	64.08%	85.46%	20.85%	47.11%	61.40%
SWY	73.51%	262.27%	19.57%	22.78%	36.47%
T	36.07%	-27.76%	0.34%	22.36%	-2.97%
TXU	58.95%	52.74%	5.28%	13.53%	9.82%
TYC	74.07%	114.09%	15.85%	26.76%	29.01%
UTX	75.10%	170.51%	12.29%	18.44%	24.66%
VZ	27.99%	302.75%	18.99%	18.14%	11.73%
WFC	64.18%	218.34%	13.10%	16.19%	19.30%
WMB	66.18%	59.19%	12.44%	23.07%	19.01%
WMI	55.74%	13.49%	5.41%	29.29%	18.07%
XOM	42.43%	202.25%	13.46%	10.15%	11.56%
XRX	49.58%	14.70%	5.61%	27.31%	7.00%

TABLA N°8.20:   **APLICACIÓN DEL OSCILADOR %K PARA 20 DIAS.**

                          (PERIODO 1992-2002)

%K ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	63.87%	166.97%	16.23%	17.72%	19.00%
AEP	64.21%	-3.34%	2.54%	10.77%	10.41%
AES	51.52%	-32.20%	16.02%	40.44%	30.38%
AMAT	58.46%	645.94%	29.87%	37.74%	56.35%
AMR	39.50%	35.14%	13.37%	27.18%	0.55%
AOL	68.78%	653.73%	30.83%	44.92%	120.20%
APC	39.30%	250.88%	18.12%	18.38%	16.53%
AT	65.50%	67.12%	7.18%	10.86%	14.29%
AXP	66.65%	225.14%	15.53%	20.49%	24.22%

BA	54.44%	94.80%	9.92%	18.22%	14.05%
BAC	65.90%	165.09%	10.97%	17.00%	17.62%
BC	70.25%	-27.98%	-1.09%	21.33%	11.90%
BK	60.44%	292.35%	20.09%	29.33%	27.35%
BLS	38.04%	306.17%	19.31%	16.25%	14.05%
BMET	40.21%	540.94%	26.26%	24.17%	24.84%
BUD	58.17%	229.20%	14.00%	10.00%	19.44%
C	61.30%	296.66%	18.15%	23.00%	32.77%
CAT	49.31%	306.26%	16.82%	17.55%	17.30%
CD	54.88%	40.16%	7.66%	30.68%	13.92%
CIN	61.81%	162.69%	10.89%	19.44%	10.53%
CL	66.77%	178.13%	11.53%	15.00%	19.91%
CMCSK	63.20%	100.67%	12.60%	24.37%	26.96%
COP	47.51%	170.19%	12.49%	13.42%	12.47%
COST	58.94%	280.04%	18.96%	25.85%	23.03%
CSC	67.38%	42.70%	7.18%	24.72%	19.70%
CSCO	64.27%	654.05%	27.97%	37.50%	55.60%
CTAS	67.15%	201.77%	14.49%	18.92%	22.21%
CTL	39.92%	221.20%	12.59%	16.70%	16.04%
CUM	40.66%	4.90%	4.05%	19.52%	5.51%
CVX	28.33%	339.99%	18.81%	12.45%	13.45%
CZN	53.95%	-50.60%	-5.64%	14.07%	-0.52%
D	67.51%	40.94%	4.26%	12.25%	11.68%
DD	54.95%	163.52%	8.57%	15.23%	11.96%
DELL	56.90%	1161.56%	36.94%	42.19%	91.69%
DG	48.58%	613.12%	22.87%	23.92%	26.08%
DIS	55.42%	67.78%	9.23%	21.79%	8.66%
DTE	56.55%	53.04%	4.58%	11.49%	10.89%
DUK	57.70%	39.48%	6.84%	10.25%	13.14%
EK	30.73%	133.26%	12.34%	24.52%	3.42%
EMC	73.89%	58.16%	21.07%	52.74%	69.99%
EP	48.87%	66.13%	15.00%	16.70%	17.03%
EXC	77.89%	-38.63%	-5.52%	9.17%	15.26%
F	33.56%	57.41%	9.90%	22.43%	5.10%
FDC	61.77%	625.04%	20.04%	21.54%	20.94%
FRE	61.77%	443.07%	19.22%	14.73%	24.57%
G	55.44%	113.22%	11.29%	15.26%	13.50%
GE	62.72%	240.81%	13.78%	13.00%	24.55%
GT	59.06%	-64.15%	-4.99%	24.31%	1.52%
GWW	61.30%	51.69%	5.08%	14.53%	9.88%
HD	54.33%	104.54%	11.60%	15.26%	22.46%
HMA	47.65%	428.33%	25.93%	32.85%	35.55%
HON	46.12%	333.52%	16.66%	20.42%	13.94%
HPQ	54.22%	193.29%	13.94%	20.76%	17.64%
INTC	73.99%	2.80%	3.84%	17.58%	38.95%
JNJ	48.31%	362.52%	21.11%	16.73%	23.91%
JPM	61.08%	29.15%	4.46%	15.33%	18.58%

KEY	73.10%	11.33%	1.36%	14.39%	10.02%
KMB	79.48%	9.24%	1.07%	11.40%	13.73%
KO	54.75%	84.63%	7.27%	13.53%	14.33%
KR	50.91%	556.39%	24.04%	24.04%	24.24%
LMT	65.94%	104.24%	8.94%	25.38%	19.76%
MCD	56.95%	136.88%	10.54%	10.15%	11.97%
MDT	63.37%	128.51%	21.24%	13.49%	33.06%
MER	73.24%	97.51%	9.36%	22.80%	28.56%
MMM	50.82%	251.26%	12.85%	16.91%	13.22%
MO	66.65%	-5.99%	5.68%	21.98%	16.60%
MOLX	43.05%	483.22%	20.77%	23.81%	16.19%
NTRS	47.82%	256.43%	22.36%	32.40%	26.30%
ODP	56.13%	27.36%	8.65%	34.12%	15.48%
ORCL	60.14%	874.42%	32.42%	49.26%	64.77%
OXY	61.87%	38.19%	4.19%	15.49%	10.01%
PBI	49.22%	165.23%	11.03%	14.63%	14.61%
PCAR	36.94%	440.62%	20.05%	23.58%	17.12%
PCL	62.98%	112.51%	7.15%	9.80%	17.22%
PD	53.66%	-8.40%	-1.20%	10.95%	2.05%
PEP	33.47%	218.21%	15.47%	14.53%	12.67%
PFE	61.78%	205.75%	15.11%	13.08%	30.29%
PG	63.65%	137.27%	10.01%	15.30%	17.18%
PGN	60.50%	50.91%	4.66%	11.31%	12.30%
PGR	82.95%	26.50%	5.96%	24.70%	26.58%
PLL	36.97%	30.86%	6.67%	14.66%	5.08%
PPG	61.06%	79.77%	5.56%	13.86%	9.66%
RSH	74.83%	-16.17%	0.67%	22.96%	25.69%
S	59.80%	78.12%	8.13%	21.68%	17.65%
SBC	47.00%	124.65%	11.11%	12.29%	12.82%
SHW	38.93%	213.42%	13.92%	21.54%	10.08%
SLB	30.73%	241.80%	19.97%	24.80%	13.51%
SO	53.02%	236.87%	12.73%	9.49%	16.01%
SUNW	66.93%	70.21%	19.55%	51.86%	61.27%
SWY	68.25%	270.17%	19.57%	20.37%	36.38%
T	34.55%	-21.83%	0.80%	22.74%	-3.05%
TXU	57.61%	54.25%	5.77%	12.57%	9.79%
TYC	75.83%	96.73%	17.26%	29.70%	29.03%
UTX	79.93%	106.80%	7.69%	14.14%	24.67%
VZ	34.71%	227.21%	15.07%	13.60%	11.66%
WFC	61.63%	200.76%	12.23%	12.41%	19.25%
WMB	66.30%	-66.60%	8.53%	24.64%	18.88%
WMI	60.12%	-19.98%	1.32%	25.50%	18.09%
XOM	43.50%	201.30%	14.70%	12.88%	11.58%
XRX	55.60%	-39.48%	1.03%	30.97%	7.04%

DATOS SEMANALES:

TABLA N°8.21:   **APLICACIÓN DEL OSCILADOR %K PARA 5 SEMANAS.**

(PERIODO 1992-2002)

%K ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	53.33%	182.91%	15.14%	13.53%	19.26%
AEP	60.43%	10.93%	3.76%	13.78%	10.53%
AES	61.08%	-71.64%	3.72%	33.51%	30.71%
AMAT	70.97%	25.96%	5.60%	21.31%	56.76%
AMR	40.22%	35.03%	14.00%	28.69%	0.68%
AOL	67.31%	240.09%	23.76%	12.66%	121.37%
APC	31.18%	574.17%	24.88%	17.86%	16.68%
AT	58.92%	100.05%	9.80%	14.59%	14.47%
AXP	64.95%	176.33%	14.45%	24.29%	24.40%
BA	44.52%	174.42%	13.17%	18.63%	14.19%
BAC	67.10%	118.68%	7.06%	14.63%	17.81%
BC	73.12%	-29.33%	-2.32%	22.93%	11.95%
BK	63.44%	233.46%	16.72%	18.55%	27.64%
BLS	55.70%	34.60%	5.95%	10.58%	14.23%
BMET	53.55%	364.33%	20.46%	22.02%	25.05%
BUD	64.73%	168.84%	12.46%	11.27%	19.60%
C	78.71%	71.08%	9.28%	19.80%	33.07%
CAT	53.33%	265.26%	18.12%	31.21%	17.59%
CD	63.23%	-34.34%	-0.67%	27.73%	14.25%
CIN	52.90%	146.41%	10.63%	17.86%	10.62%
CL	65.38%	160.27%	11.50%	14.35%	20.07%
CMCSK	55.48%	226.81%	13.75%	20.12%	27.27%
COP	50.11%	192.96%	10.95%	12.08%	12.60%
COST	55.05%	101.50%	11.01%	12.73%	23.29%
CSC	69.68%	51.76%	5.31%	19.00%	19.97%
CSCO	78.92%	12.95%	3.66%	22.23%	56.37%
CTAS	62.58%	320.14%	18.69%	18.41%	22.43%
CTL	43.23%	104.81%	8.98%	12.85%	16.29%
CUM	50.11%	-12.40%	1.86%	15.87%	5.60%
CVX	46.67%	233.78%	13.58%	9.85%	13.60%
CZN	33.98%	-8.75%	1.26%	15.26%	-0.46%
D	63.87%	133.15%	7.80%	11.83%	11.81%
DD	46.45%	256.40%	13.70%	10.68%	12.12%
DELL	58.49%	641.17%	28.15%	34.42%	92.60%
DG	38.92%	1199.95%	30.26%	19.08%	26.36%
DIS	52.04%	39.69%	6.05%	17.23%	8.79%
DTE	59.14%	34.98%	3.56%	12.77%	10.99%
DUK	53.98%	78.50%	8.94%	9.90%	13.27%

EK	31.18%	186.59%	11.74%	14.42%	3.54%
EMC	63.87%	13.54%	15.36%	41.32%	70.86%
EP	63.66%	-25.80%	5.03%	16.03%	17.34%
EXC	67.74%	5.78%	1.59%	15.78%	15.36%
F	41.29%	48.98%	6.42%	17.03%	5.27%
FDC	70.54%	91.75%	9.00%	18.28%	21.19%
FRE	62.15%	459.68%	9.77%	14.11%	24.79%
G	64.73%	47.41%	6.07%	12.96%	13.63%
GE	79.14%	149.09%	10.20%	47.01%	24.84%
GT	56.99%	-56.48%	-2.68%	22.52%	1.73%
GWW	62.80%	31.03%	6.26%	19.13%	9.97%
HD	52.04%	175.81%	15.56%	18.79%	22.79%
HMA	52.90%	348.78%	22.44%	29.66%	35.81%
HON	61.08%	78.34%	6.23%	17.35%	14.17%
HPQ	70.11%	-22.49%	0.49%	21.38%	17.91%
INTC	58.49%	193.60%	15.62%	16.52%	39.33%
JNJ	72.47%	93.22%	10.34%	13.30%	24.14%
JPM	56.56%	40.23%	7.66%	17.55%	18.85%
KEY	59.14%	46.84%	4.41%	12.69%	10.89%
KMB	55.48%	115.38%	9.27%	9.59%	13.84%
KO	50.54%	148.36%	10.32%	12.12%	14.48%
KR	69.03%	178.36%	11.57%	15.13%	24.55%
LMT	73.55%	28.14%	3.20%	17.86%	19.84%
MCD	52.26%	155.31%	11.88%	8.66%	12.13%
MDT	55.70%	426.29%	24.38%	19.00%	33.35%
MER	69.03%	84.23%	12.31%	34.47%	28.88%
MMM	56.56%	188.52%	10.87%	13.19%	13.32%
MO	68.60%	-9.30%	5.01%	27.28%	16.76%
MOLX	35.48%	618.20%	23.49%	20.27%	16.36%
NTRS	52.26%	242.83%	18.31%	21.31%	26.50%
ODP	58.06%	-18.40%	1.94%	26.00%	15.81%
ORCL	73.76%	271.47%	20.01%	36.51%	65.42%
OXY	61.29%	98.55%	6.45%	12.04%	10.14%
PBI	50.97%	152.45%	10.74%	13.75%	14.77%
PCAR	36.99%	310.66%	16.45%	17.15%	17.28%
PCL	61.94%	77.11%	5.85%	13.15%	17.41%
PD	51.18%	27.56%	4.38%	20.47%	12.13%
PEP	54.62%	98.69%	9.23%	13.00%	12.80%
PFE	66.02%	194.04%	16.92%	20.15%	30.58%
PG	70.11%	84.57%	6.45%	16.16%	17.30%
PGN	62.80%	100.24%	6.20%	13.42%	12.40%
PGR	73.55%	85.80%	9.38%	24.27%	26.92%
PLL	33.55%	95.03%	11.31%	15.91%	5.17%
PPG	49.03%	139.84%	8.20%	17.18%	9.79%
RSH	76.34%	-12.08%	0.16%	18.44%	25.78%
S	71.40%	-26.58%	-1.17%	15.33%	17.90%
SBC	47.31%	199.87%	13.97%	11.92%	12.99%

SHW	48.17%	181.69%	13.25%	18.52%	10.18%
SLB	40.86%	189.20%	15.98%	23.04%	13.64%
SO	67.31%	153.62%	9.51%	9.90%	16.12%
SUNW	73.55%	-74.69%	1.17%	34.04%	62.43%
SWY	69.68%	166.29%	16.92%	21.84%	36.71%
T	36.77%	-12.63%	2.86%	24.64%	-2.96%
TXU	56.99%	26.67%	3.96%	10.68%	9.86%
TYC	81.94%	-38.85%	3.95%	21.10%	29.42%
UTX	77.42%	84.72%	8.69%	12.25%	24.96%
VZ	60.00%	53.32%	7.22%	10.77%	11.82%
WFC	75.91%	76.89%	5.99%	10.72%	19.42%
WMB	74.84%	-86.91%	-2.58%	19.95%	19.22%
WMI	68.17%	17.00%	3.58%	21.75%	18.26%
XOM	53.12%	169.29%	19.59%	12.41%	11.72%
XRX	59.57%	-15.28%	3.80%	37.75%	7.12%

TABLA N°8.21:   APLICACIÓN DEL OSCILADOR %K PARA 10 SEMANAS.
(PERIODO 1992-2002)

%K	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	59.35%	106.75%	11.35%	11.00%	19.34%
AEP	55.43%	48.30%	5.85%	13.15%	10.35%
AES	58.48%	-79.18%	2.12%	31.65%	30.52%
AMAT	69.33%	-18.25%	3.59%	25.10%	55.63%
AMR	47.61%	-64.49%	-2.05%	25.20%	0.55%
AOL	65.43%	96.69%	19.52%	37.92%	119.35%
APC	31.30%	691.12%	29.05%	26.76%	16.27%
AT	61.96%	22.87%	5.00%	13.08%	14.20%
AXP	71.52%	75.29%	7.62%	14.70%	23.92%
BA	44.78%	217.60%	15.25%	20.74%	14.29%
BAC	59.78%	137.69%	10.32%	13.08%	17.79%
BC	64.35%	-11.56%	1.59%	22.61%	11.89%
BK	66.52%	128.62%	10.78%	17.03%	27.60%
BLS	50.87%	54.71%	9.10%	12.21%	14.19%
BMET	62.39%	244.88%	16.06%	19.29%	25.75%
BUD	74.33%	79.89%	7.26%	8.25%	19.94%
C	72.17%	85.84%	9.71%	18.19%	32.14%
CAT	57.61%	93.32%	12.48%	25.98%	17.11%
CD	49.35%	31.34%	7.18%	26.61%	12.72%
CIN	60.65%	79.76%	6.61%	13.93%	10.48%
CL	67.17%	132.82%	10.01%	12.00%	20.31%
CMCSK	49.57%	129.17%	12.68%	19.54%	26.23%
COP	60.43%	96.30%	7.97%	10.05%	12.38%
COST	51.74%	107.45%	11.54%	13.34%	23.34%

CSC	53.48%	145.82%	11.46%	20.17%	19.77%
CSCO	82.17%	-31.50%	-1.49%	25.83%	56.13%
CTAS	68.04%	262.59%	17.56%	27.53%	22.59%
CTL	45.87%	93.00%	7.82%	8.37%	16.29%
CUM	48.48%	-10.55%	3.04%	17.94%	5.39%
CVX	50.87%	217.59%	13.06%	9.49%	13.37%
CZN	35.22%	5.87%	2.12%	13.75%	-0.82%
D	68.04%	78.16%	5.43%	11.14%	11.57%
DD	49.13%	205.28%	13.35%	13.19%	12.23%
DELL	60.43%	207.91%	19.37%	35.26%	94.06%
DG	50.22%	467.58%	23.30%	17.61%	25.49%
DIS	62.17%	3.37%	3.65%	13.93%	8.75%
DTE	61.30%	37.54%	4.31%	16.40%	10.96%
DUK	53.70%	155.62%	12.67%	13.38%	13.11%
EK	40.65%	108.11%	6.82%	15.94%	3.13%
EMC	72.61%	-36.97%	9.29%	41.38%	67.03%
EP	58.70%	-27.59%	4.00%	15.07%	17.15%
EXC	60.00%	60.80%	6.13%	16.67%	15.20%
F	41.96%	48.06%	8.42%	19.80%	4.77%
FDC	82.61%	1.20%	2.58%	15.91%	20.94%
FRE	64.13%	290.16%	15.61%	9.85%	24.76%
G	63.91%	43.47%	4.52%	11.31%	13.74%
GE	74.35%	90.73%	7.00%	11.87%	24.79%
GT	77.17%	-72.47%	-6.08%	22.61%	1.24%
GWW	67.17%	77.67%	9.37%	18.33%	10.02%
HD	44.13%	224.42%	17.97%	17.64%	23.10%
HMA	61.96%	254.37%	17.44%	27.78%	35.44%
HON	56.96%	168.25%	13.18%	19.21%	13.91%
HPQ	63.91%	-43.53%	0.22%	23.66%	17.81%
INTC	65.87%	-7.99%	7.51%	23.19%	38.55%
JNJ	75.87%	71.58%	8.08%	11.14%	24.55%
JPM	55.65%	52.15%	7.22%	12.81%	18.60%
KEY	60.22%	22.13%	2.48%	15.72%	10.87%
KMB	49.13%	90.47%	9.71%	12.37%	14.01%
KO	47.17%	214.40%	13.50%	14.07%	14.54%
KR	71.52%	68.31%	9.68%	18.03%	24.07%
LMT	69.35%	8.41%	3.04%	21.31%	19.63%
MCD	47.39%	163.22%	12.74%	9.80%	12.02%
MDT	64.35%	169.84%	17.17%	18.17%	33.99%
MER	63.70%	233.28%	16.89%	23.94%	28.15%
MMM	55.43%	171.94%	10.98%	11.62%	13.39%
MO	62.83%	-23.68%	2.80%	23.87%	17.36%
MOLX	61.74%	63.33%	4.88%	13.34%	16.18%
NTRS	61.09%	98.83%	9.73%	12.25%	26.65%
ODP	43.91%	24.01%	9.95%	32.63%	15.18%
ORCL	73.70%	50.00%	8.87%	25.12%	63.92%
OXY	51.30%	133.25%	9.15%	17.52%	9.99%

PBI	57.39%	73.32%	7.75%	13.96%	14.78%
PCAR	43.48%	72.64%	9.81%	17.89%	17.24%
PCL	54.35%	127.80%	9.72%	12.21%	16.86%
PD	41.52%	78.13%	10.20%	18.89%	2.19%
PEP	41.09%	178.97%	15.14%	12.88%	12.90%
PFE	73.48%	27.48%	5.43%	10.54%	31.07%
PG	74.13%	82.34%	6.62%	15.72%	17.47%
PGN	65.00%	54.34%	3.83%	13.89%	12.20%
PGR	72.17%	50.55%	7.61%	23.11%	26.22%
PLL	33.04%	136.76%	13.39%	20.42%	5.28%
PPG	59.35%	113.27%	7.77%	10.44%	9.69%
RSH	72.83%	-20.24%	2.31%	24.62%	25.59%
S	49.35%	62.65%	6.91%	17.18%	17.12%
SBC	51.09%	112.89%	10.64%	10.39%	12.79%
SHW	51.30%	77.71%	8.59%	15.91%	9.99%
SLB	43.04%	125.17%	12.08%	15.00%	13.81%
SO	57.17%	244.00%	13.31%	11.14%	15.98%
SUNW	63.70%	-51.54%	8.27%	33.11%	63.34%
SWY	80.87%	7.91%	4.96%	14.56%	36.17%
T	38.91%	-44.72%	-4.39%	17.35%	-3.41%
TXU	60.22%	36.83%	5.08%	15.10%	9.75%
TYC	77.39%	-41.28%	2.67%	16.79%	29.51%
UTX	77.61%	61.12%	6.22%	12.53%	24.94%
VZ	74.13%	-20.34%	0.77%	10.34%	11.52%
WFC	54.13%	274.73%	14.71%	11.31%	19.19%
WMB	75.22%	-83.78%	-3.07%	18.84%	18.59%
WMI	54.78%	112.81%	9.29%	23.49%	18.41%
XOM	48.26%	203.51%	12.61%	8.77%	11.80%
XRX	59.13%	-27.27%	6.01%	39.85%	7.26%

TABLA N°8.22:   **APLICACIÓN DEL OSCILADOR %K PARA 15 SEMANAS.**
                    (PERIODO 1992-2002)

%K	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	77.36%	29.13%	6.60%	11.75%	19.46%
AEP	59.78%	31.65%	5.17%	13.78%	10.21%
AES	60.44%	-87.17%	1.27%	36.66%	30.42%
AMAT	70.77%	-43.60%	0.72%	23.98%	55.18%
AMR	40.88%	-50.84%	-0.43%	22.02%	0.46%
AOL	69.45%	-47.93%	6.13%	37.71%	117.88%
APC	41.10%	311.43%	16.67%	16.46%	15.79%
AT	61.54%	15.30%	4.36%	8.31%	14.13%
AXP	76.70%	16.14%	2.33%	14.97%	23.66%

BA	48.35%	103.85%	10.70%	20.86%	14.37%
BAC	56.26%	254.12%	15.32%	22.69%	18.00%
BC	62.42%	-7.01%	0.89%	18.22%	11.81%
BK	70.11%	191.85%	12.91%	12.21%	27.76%
BLS	49.89%	33.35%	8.31%	12.96%	14.15%
BMET	68.13%	136.60%	13.68%	19.44%	26.35%
BUD	75.38%	59.28%	5.89%	6.40%	20.31%
C	70.55%	84.21%	10.75%	18.00%	31.54%
CAT	57.80%	31.00%	6.07%	18.92%	16.59%
CD	45.05%	112.08%	11.67%	30.03%	11.71%
CIN	68.57%	25.74%	1.60%	7.94%	10.40%
CL	66.15%	158.25%	10.87%	12.96%	20.54%
CMCSK	47.03%	103.94%	10.49%	18.03%	25.12%
COP	61.54%	71.79%	6.81%	9.00%	12.15%
COST	51.87%	120.54%	12.13%	13.15%	23.70%
CSC	66.15%	24.72%	6.38%	24.70%	19.66%
CSCO	81.76%	-53.34%	-2.63%	25.38%	56.08%
CTAS	81.98%	62.13%	6.40%	26.65%	22.75%
CTL	44.18%	57.59%	5.83%	11.96%	16.44%
CUM	64.40%	-57.69%	-7.02%	14.83%	4.99%
CVX	49.67%	185.34%	12.28%	8.94%	13.09%
CZN	34.73%	-7.85%	0.39%	14.28%	-1.17%
D	63.52%	46.98%	3.45%	23.87%	11.44%
DD	63.74%	51.22%	5.22%	14.56%	12.30%
DELL	63.08%	181.27%	17.02%	32.98%	95.47%
DG	52.97%	404.19%	21.51%	21.45%	24.94%
DIS	63.30%	-34.15%	-1.35%	11.92%	8.84%
DTE	65.71%	15.89%	1.73%	11.36%	11.02%
DUK	57.80%	92.16%	8.66%	10.95%	12.99%
EK	56.04%	51.83%	2.70%	11.00%	2.54%
EMC	75.60%	-64.80%	3.40%	36.58%	64.92%
EP	68.57%	-38.24%	0.09%	11.31%	17.05%
EXC	56.92%	39.07%	5.25%	13.75%	15.20%
F	35.60%	36.38%	8.37%	21.05%	4.19%
FDC	76.70%	-3.85%	1.59%	13.86%	20.82%
FRE	63.08%	324.03%	16.71%	12.25%	24.91%
G	73.85%	-8.08%	-1.63%	12.49%	13.85%
GE	73.85%	76.09%	7.09%	11.79%	24.78%
GT	61.10%	-67.67%	-5.98%	20.54%	0.98%
GWW	55.60%	137.43%	11.63%	14.66%	10.17%
HD	50.77%	202.23%	17.07%	17.75%	23.43%
HMA	69.45%	204.15%	13.45%	19.92%	35.12%
HON	57.80%	105.26%	11.15%	16.58%	13.73%
HPQ	57.58%	-20.38%	4.34%	26.66%	17.73%
INTC	58.24%	30.90%	10.12%	23.64%	38.16%
JNJ	70.77%	93.34%	9.16%	10.86%	24.95%
JPM	47.03%	188.19%	13.32%	16.43%	18.69%

KEY	54.07%	29.88%	3.52%	18.00%	10.96%
KMB	54.29%	112.55%	10.02%	12.81%	14.26%
KO	55.16%	97.92%	7.34%	11.00%	14.64%
KR	71.87%	75.64%	7.85%	13.23%	23.93%
LMT	68.79%	8.55%	1.58%	18.44%	19.33%
MCD	51.65%	73.88%	7.04%	6.93%	11.92%
MDT	59.12%	246.28%	20.16%	15.00%	34.63%
MER	61.10%	119.89%	13.79%	23.17%	27.78%
MMM	51.87%	227.98%	12.00%	11.22%	13.47%
MO	55.38%	29.67%	6.96%	22.16%	17.86%
MOLX	45.93%	91.55%	8.11%	14.59%	16.04%
NTRS	71.43%	7.12%	2.11%	10.77%	26.95%
ODP	40.66%	31.68%	13.39%	39.55%	14.77%
ORCL	74.95%	51.33%	7.11%	20.02%	62.74%
OXY	48.57%	144.67%	11.17%	19.97%	9.98%
PBI	65.27%	8.30%	1.88%	12.33%	14.84%
PCAR	50.11%	45.44%	7.22%	17.52%	17.22%
PCL	67.25%	61.32%	5.96%	13.00%	16.12%
PD	32.75%	122.00%	10.35%	23.00%	2.19%
PEP	50.55%	45.39%	6.91%	11.58%	13.07%
PFE	67.69%	74.36%	7.97%	8.83%	31.56%
PG	74.95%	45.42%	4.37%	15.20%	17.65%
PGN	61.98%	51.17%	4.49%	12.21%	12.14%
PGR	63.08%	106.39%	9.75%	22.98%	25.88%
PLL	40.22%	81.34%	7.46%	12.08%	5.40%
PPG	54.29%	197.35%	11.86%	16.25%	9.60%
RSH	65.93%	43.91%	7.73%	28.51%	25.15%
S	46.81%	64.35%	7.04%	17.32%	16.35%
SBC	53.41%	61.90%	10.58%	14.21%	12.60%
SHW	37.36%	201.17%	14.56%	17.06%	9.87%
SLB	63.08%	11.91%	12.75%	16.85%	13.95%
SO	60.66%	156.43%	10.20%	14.46%	15.87%
SUNW	56.48%	-57.19%	7.03%	36.21%	64.28%
SWY	83.30%	-33.95%	-0.95%	12.04%	35.94%
T	46.81%	-65.56%	-8.67%	18.57%	-3.71%
TXU	63.96%	11.88%	2.31%	12.65%	9.72%
TYC	71.21%	-6.96%	7.85%	20.47%	29.58%
UTX	76.26%	37.11%	4.97%	11.70%	24.72%
VZ	56.92%	31.61%	7.46%	13.04%	11.24%
WFC	56.22%	206.88%	12.86%	15.78%	19.26%
WMB	73.41%	-81.13%	-1.47%	18.44%	18.21%
WMI	47.25%	251.62%	17.68%	28.97%	18.84%
XOM	58.46%	81.60%	7.08%	9.17%	11.85%
XRX	59.78%	-43.24%	3.27%	39.42%	7.28%

TABLA N°8.23:   APLICACIÓN DEL OSCILADOR %K PARA 20 SEMANAS.

(PERIODO 1992-2002)

%K ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E	RPA PAS
ADP	73.56%	18.64%	5.34%	11.22%	19.62%
AEP	61.56%	-3.03%	0.94%	8.60%	10.08%
AES	68.22%	-91.25%	-4.44%	30.40%	30.41%
AMAT	71.78%	-42.16%	0.12%	22.49%	54.60%
AMR	37.33%	-18.83%	5.49%	25.63%	0.41%
AOL	70.44%	-63.38%	-0.78%	24.37%	117.74%
APC	37.78%	287.48%	18.89%	18.95%	15.40%
AT	53.11%	74.73%	9.53%	12.08%	14.09%
AXP	72.67%	46.54%	4.70%	15.23%	23.56%
BA	52.00%	57.34%	5.30%	15.72%	14.37%
BAC	53.11%	143.17%	9.52%	15.59%	18.22%
BC	40.22%	175.33%	13.49%	23.60%	11.80%
BK	60.22%	222.58%	14.04%	16.49%	27.93%
BLS	43.56%	68.15%	11.30%	14.63%	14.17%
BMET	61.11%	166.45%	15.22%	18.17%	27.04%
BUD	83.56%	49.03%	4.69%	6.48%	20.68%
C	67.11%	98.66%	12.06%	21.68%	31.17%
CAT	67.56%	0.22%	2.08%	15.26%	16.08%
CD	40.89%	129.82%	14.14%	33.03%	10.89%
CIN	67.33%	30.39%	2.04%	8.60%	10.31%
CL	59.56%	164.98%	11.17%	9.64%	10.68%
CMCSK	54.44%	56.34%	6.77%	18.33%	24.38%
COP	57.33%	98.03%	9.02%	9.00%	12.08%
COST	58.44%	127.98%	12.92%	19.13%	23.91%
CSC	59.11%	79.31%	12.38%	32.03%	19.61%
CSCO	80.00%	54.48%	-4.28%	23.17%	55.98%
CTAS	77.33%	92.69%	8.69%	19.16%	22.80%
CTL	45.78%	36.75%	4.99%	11.00%	16.70%
CUM	59.33%	-45.63%	-5.11%	16.88%	4.66%
CVX	46.89%	213.34%	12.99%	7.68%	12.90%
CZN	32.67%	-25.44%	-1.30%	13.45%	-1.54%
D	64.22%	52.17%	3.82%	7.00%	11.34%
DD	58.44%	89.47%	7.53%	14.35%	12.41%
DELL	68.00%	22.31%	7.90%	26.89%	97.01%
DG	58.67%	108.33%	8.97%	13.67%	24.25%
DIS	63.56%	-30.77%	-2.02%	11.14%	8.91%
DTE	61.78%	31.77%	2.55%	11.09%	11.14%
DUK	64.22%	35.92%	4.42%	30.98%	12.89%
EK	52.89%	55.95%	4.20%	11.87%	2.03%
EMC	64.89%	-60.29%	2.28%	35.20%	63.52%
EP	61.78%	-42.67%	0.79%	15.33%	17.06%
EXC	51.11%	55.45%	5.42%	15.30%	15.19%

F	36.44%	34.11%	4.92%	16.55%	3.67%
FDC	67.78%	78.79%	9.99%	22.69%	20.77%
FRE	73.33%	128.33%	10.44%	12.08%	25.09%
G	69.78%	1.91%	-0.66%	12.65%	13.96%
GE	73.11%	38.32%	4.64%	8.94%	24.78%
GT	60.44%	-65.14%	-5.15%	20.22%	0.61%
GWW	55.78%	126.14%	12.10%	19.72%	10.29%
HD	60.22%	91.84%	10.87%	16.64%	23.89%
HMA	77.78%	71.71%	5.44%	21.54%	34.85%
HON	54.89%	129.93%	12.29%	21.12%	13.54%
HPQ	51.33%	4.48%	7.16%	27.40%	17.74%
INTC	63.33%	-1.00%	7.12%	20.93%	38.09%
JNJ	81.56%	62.20%	3.38%	8.00%	25.37%
JPM	46.67%	189.06%	12.38%	15.75%	18.78%
KEY	56.44%	33.56%	2.25%	16.00%	11.12%
KMB	51.33%	159.61%	12.55%	11.62%	14.56%
KO	52.44%	113.82%	6.49%	11.66%	14.74%
KR	79.56%	-17.58%	-0.44%	12.88%	23.80%
LMT	74.44%	-16.76%	-1.17%	18.19%	19.25%
MCD	46.44%	102.66%	7.73%	11.83%	11.87%
MDT	68.22%	117.65%	14.02%	15.20%	35.15%
MER	61.78%	52.55%	8.19%	17.26%	27.51%
MMM	51.56%	197.73%	10.23%	7.62%	13.50%
MO	61.78%	1.12%	4.70%	21.52%	18.39%
MOLX	52.89%	92.02%	6.30%	14.04%	15.87%
NTRS	73.11%	-13.22%	0.27%	9.85%	27.28%
ODP	47.56%	-18.99%	4.55%	29.85%	14.34%
ORCL	76.00%	-29.01%	1.90%	29.33%	61.46%
OXY	40.44%	251.09%	14.83%	17.69%	10.04%
PBI	71.78%	-24.13%	-2.30%	15.33%	14.91%
PCAR	56.89%	30.12%	5.41%	16.73%	17.28%
PCL	52.44%	94.98%	8.36%	13.04%	15.33%
PD	35.56%	105.52%	9.27%	20.47%	2.15%
PEP	46.67%	74.60%	9.30%	12.81%	13.25%
PFE	62.44%	133.46%	11.10%	12.45%	32.02%
PG	76.22%	34.74%	3.46%	14.07%	17.79%
PGN	58.89%	73.48%	5.92%	10.44%	12.12%
PGR	62.89%	81.46%	7.55%	20.25%	25.67%
PLL	35.56%	168.87%	12.54%	16.31%	5.51%
PPG	61.56%	73.53%	6.17%	14.66%	9.51%
RSH	60.44%	69.72%	8.51%	23.60%	24.79%
S	39.11%	142.80%	12.36%	20.57%	15.74%
SBC	57.33%	5.01%	5.14%	12.25%	12.48%
SHW	42.89%	188.18%	12.79%	14.11%	9.86%
SLB	57.11%	19.98%	2.64%	13.15%	14.08%
SO	67.33%	74.16%	5.91%	9.59%	15.79%
SUNW	59.33%	-68.06%	6.88%	39.36%	65.18%

SWY	85.11%	-40.47%	-1.79%	13.19%	35.85%
T	50.67%	-66.82%	-8.70%	20.25%	-3.85%
TXU	68.22%	-0.93%	-1.16%	8.77%	9.73%
TYC	68.89%	34.27%	8.55%	15.91%	29.71%
UTX	78.22%	23.42%	3.31%	8.66%	24.59%
VZ	52.22%	55.13%	10.28%	14.97%	11.10%
WFC	60.67%	146.48%	9.81%	30.17%	19.34%
WMB	69.78%	-82.90%	1.97%	21.73%	18.01%
WMI	45.78%	252.54%	18.38%	28.39%	19.25%
XOM	55.11%	88.25%	7.37%	8.60%	11.95%
XRX	62.89%	-49.05%	3.22%	40.64%	7.23%

ANEXO 4 : APLICACIÓN DEL MOMENTUM.

DATOS DIARIOS:

TABLA N°8.24: **APLICACIÓN DEL MOMENTUM PARA 5 DIAS.**
(PERIODO 1992-2002)

MOMENTUM	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	50.14%	219.32%	18.47%	21.40%	18.92%
AEP	40.96%	320.94%	14.99%	18.71%	10.54%
AES	65.48%	-12.83%	13.17%	39.01%	30.48%
AMAT	38.20%	1769.00%	54.08%	51.57%	57.10%
AMR	52.07%	-17.56%	6.58%	30.13%	0.62%
AOL	55.13%	5242.27%	79.41%	86.04%	121.05%
APC	42.19%	298.97%	18.35%	26.08%	16.67%
AT	76.11%	45.49%	6.23%	16.94%	14.51%
AXP	69.92%	197.05%	13.73%	18.57%	24.44%
BA	58.94%	130.78%	11.15%	16.00%	14.02%
BAC	54.22%	302.54%	18.21%	27.02%	17.64%
BC	66.37%	55.35%	3.62%	18.28%	11.91%
BK	69.30%	273.57%	14.73%	24.21%	27.93%
BLS	72.60%	-62.14%	-6.32%	19.95%	14.07%
BMET	71.21%	21.11%	11.31%	20.12%	24.34%
BUD	81.08%	85.08%	9.50%	12.17%	19.26%
C	68.71%	529.66%	22.72%	28.27%	33.34%
CAT	66.96%	81.24%	10.05%	25.32%	17.57%
CD	26.27%	2081.27%	45.42%	45.69%	14.80%

CIN	50.23%	91.16%	9.77%	19.67%	10.61%
CL	57.29%	290.11%	16.40%	16.46%	19.75%
CMCSK	34.04%	795.14%	35.62%	39.05%	27.33%
COP	46.26%	225.55%	15.55%	14.14%	12.52%
COST	57.93%	255.89%	22.84%	40.40%	23.00%
CSC	48.76%	242.68%	17.60%	29.95%	19.80%
CSCO	88.35%	-20.68%	14.79%	47.90%	55.70%
CTAS	86.39%	-24.28%	2.40%	22.61%	22.08%
CTL	62.76%	132.96%	13.24%	37.72%	16.10%
CUM	52.24%	-7.62%	3.03%	18.95%	5.62%
CVX	77.29%	103.33%	8.01%	12.45%	13.53%
CZN	58.76%	-81.75%	-12.22%	11.53%	-0.31%
D	55.06%	108.95%	10.11%	15.49%	11.81%
DD	48.83%	188.37%	11.40%	13.86%	11.91%
DELL	72.63%	698.16%	34.03%	35.20%	90.86%
DG	42.80%	584.49%	37.66%	31.98%	26.55%
DIS	57.11%	42.89%	4.94%	16.03%	8.66%
DTE	67.47%	5.39%	2.72%	15.17%	10.92%
DUK	53.43%	127.76%	14.11%	22.41%	13.24%
EK	46.61%	31.25%	4.51%	25.96%	3.66%
EMC	46.18%	4527.52%	56.00%	61.12%	42.34%
EP	44.76%	480.36%	22.24%	21.59%	17.18%
EXC	50.64%	78.32%	6.35%	22.56%	15.37%
F	67.22%	-73.95%	-6.58%	26.80%	5.25%
FDC	70.00%	96.19%	6.99%	16.82%	21.04%
FRE	72.00%	178.22%	13.42%	20.86%	24.57%
G	57.79%	65.25%	8.22%	13.71%	13.37%
GE	63.94%	266.42%	17.29%	23.37%	24.59%
GT	50.11%	-38.38%	-0.10%	20.54%	1.75%
GWW	62.93%	48.04%	4.88%	18.49%	9.89%
HD	43.82%	222.77%	20.12%	18.97%	22.28%
HMA	48.97%	1202.21%	34.74%	36.69%	35.66%
HON	57.31%	111.13%	9.47%	16.16%	14.09%
HPQ	60.57%	123.58%	11.18%	25.63%	17.66%
INTC	65.34%	281.03%	21.87%	37.15%	39.36%
JNJ	53.75%	433.81%	20.94%	11.62%	23.60%
JPM	53.66%	443.71%	22.51%	21.75%	18.72%
KEY	51.87%	141.01%	10.26%	14.25%	10.82%
KMB	79.49%	11.14%	2.73%	12.37%	13.60%
KO	33.27%	264.68%	17.80%	20.27%	14.24%
KR	58.78%	283.35%	18.24%	17.69%	24.55%
LMT	79.59%	-31.32%	-1.32%	23.90%	19.84%
MCD	67.43%	36.69%	6.91%	17.69%	12.03%
MDT	66.38%	694.36%	26.36%	43.82%	32.63%
MER	53.29%	546.78%	25.59%	26.81%	28.97%
MMM	66.20%	100.53%	5.91%	11.09%	13.20%
MO	67.64%	140.07%	9.08%	21.68%	16.20%

MOLX	64.59%	31.46%	2.99%	21.82%	16.30%
NTRS	72.41%	98.53%	9.49%	17.83%	26.16%
ODP	39.35%	153.12%	14.18%	29.95%	15.78%
ORCL	59.64%	1708.97%	54.63%	97.38%	65.42%
OXY	66.01%	20.63%	2.26%	15.56%	10.04%
PBI	48.51%	79.36%	11.53%	24.25%	14.60%
PCAR	63.70%	6.07%	0.77%	17.09%	17.15%
PCL	92.61%	-9.77%	0.92%	19.24%	17.41%
PD	51.37%	27.04%	3.12%	14.63%	1.99%
PEP	50.81%	122.76%	12.17%	16.64%	12.62%
PFE	71.37%	145.60%	15.91%	22.54%	29.96%
PG	67.14%	125.97%	10.63%	14.32%	17.07%
PGN	49.17%	206.56%	13.54%	17.92%	12.46%
PGR	46.69%	807.19%	20.22%	35.67%	27.01%
PLL	87.11%	-70.24%	-8.87%	19.90%	4.99%
PPG	47.70%	150.47%	10.05%	15.00%	9.69%
RSH	39.08%	1106.34%	34.63%	40.51%	25.79%
S	60.64%	88.37%	9.03%	24.39%	18.14%
SBC	63.27%	56.13%	6.10%	17.80%	13.01%
SHW	66.54%	28.01%	2.83%	14.66%	10.16%
SLB	36.95%	232.42%	15.75%	19.75%	13.40%
SO	49.64%	234.41%	14.39%	15.00%	16.09%
SUNW	69.64%	978.21%	40.35%	48.48%	61.08%
SWY	77.27%	266.95%	18.10%	15.23%	36.65%
T	31.56%	80.98%	9.89%	27.87%	-2.77%
TXU	45.26%	99.12%	9.42%	22.05%	9.87%
TYC	63.21%	525.98%	24.31%	21.47%	28.99%
UTX	71.96%	114.00%	12.58%	26.70%	24.58%
VZ	66.39%	-43.13%	-2.55%	25.00%	11.84%
WFC	78.20%	144.75%	10.05%	24.80%	17.41%
WMB	58.42%	894.15%	17.08%	29.97%	19.30%
WMI	55.42%	267.73%	20.17%	25.28%	18.31%
XOM	75.72%	10.04%	2.43%	14.56%	11.53%
XRX	32.23%	225.00%	25.54%	41.50%	6.95%

TABLA N°8.25: APLICACIÓN DEL MOMENTUM PARA 10 DIAS.
(PERIODO 1992-2002)

MOMENTUM	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	80.72%	10.66%	3.50%	15.56%	18.95%
AEP	62.29%	86.79%	8.34%	24.88%	10.50%
AES	63.60%	281.61%	23.19%	35.38%	30.43%

AMAT	46.62%	644.74%	38.32%	72.33%	56.82%
AMR	46.33%	7.83%	9.79%	32.50%	0.59%
AOL	49.10%	16416.13%	93.01%	83.90%	120.78%
APC	55.47%	233.95%	13.12%	17.94%	16.60%
AT	77.17%	-10.19%	0.41%	13.23%	14.43%
AXP	66.40%	164.16%	12.36%	22.18%	24.37%
BA	60.54%	137.24%	10.92%	16.28%	14.04%
BAC	45.88%	417.32%	19.77%	21.12%	17.63%
BC	63.04%	87.96%	7.65%	26.98%	11.90%
BK	64.05%	607.94%	21.76%	19.13%	27.37%
BLS	57.84%	-43.32%	-0.80%	23.64%	14.07%
BMET	79.68%	-56.50%	-4.77%	16.52%	24.52%
BUD	81.40%	60.30%	7.85%	16.76%	19.32%
C	59.22%	452.72%	22.04%	36.26%	33.15%
CAT	42.23%	498.36%	21.01%	19.72%	17.46%
CD	43.31%	651.02%	25.79%	28.74%	14.47%
CIN	60.15%	107.00%	7.52%	16.46%	10.58%
CL	62.35%	179.42%	11.62%	12.25%	19.80%
CMCSK	73.22%	79.92%	9.30%	27.06%	27.19%
COP	66.03%	41.60%	5.51%	16.46%	12.50%
COST	76.10%	184.79%	14.37%	29.14%	23.00%
CSC	53.20%	241.41%	13.87%	20.64%	19.76%
CSCO	74.77%	249.93%	29.92%	51.78%	55.64%
CTAS	80.70%	-11.51%	4.47%	23.98%	22.40%
CTL	65.47%	107.08%	5.97%	19.97%	16.07%
CUM	63.03%	9.13%	1.20%	22.34%	5.58%
CVX	73.18%	38.73%	5.45%	14.93%	13.48%
CZN	49.67%	-60.72%	-7.43%	14.56%	-0.37%
D	76.75%	56.50%	6.62%	18.84%	11.77%
DD	57.89%	143.32%	9.88%	14.66%	11.93%
DELL	68.65%	814.11%	44.46%	60.06%	91.12%
DG	52.21%	1062.73%	33.19%	44.72%	26.38%
DIS	62.16%	38.30%	4.94%	13.15%	8.66%
DTE	67.83%	16.21%	2.53%	16.00%	10.92%
DUK	51.72%	160.82%	11.82%	15.23%	13.22%
EK	37.18%	74.18%	8.91%	21.07%	3.59%
EMC	63.42%	414.27%	25.61%	36.41%	41.43%
EP	57.66%	622.05%	19.41%	17.83%	17.11%
EXC	50.68%	75.46%	11.35%	25.04%	15.34%
F	97.82%	-86.32%	-17.34%	24.64%	5.21%
FDC	69.77%	88.39%	6.89%	21.93%	21.00%
FRE	66.89%	340.47%	16.77%	18.92%	24.57%
G	65.09%	134.37%	12.99%	21.12%	13.42%
GE	83.80%	126.92%	11.24%	22.02%	24.57%
GT	46.56%	42.58%	6.53%	28.71%	1.68%
GWW	57.21%	35.08%	5.17%	25.65%	9.87%
HD	67.34%	215.34%	15.30%	23.66%	22.32%

HMA	58.13%	1352.80%	33.45%	31.84%	35.61%
HON	55.35%	211.68%	15.22%	29.70%	14.03%
HPQ	80.64%	107.76%	8.70%	28.77%	17.63%
INTC	62.26%	252.47%	20.13%	37.56%	39.22%
JNJ	78.31%	178.84%	12.45%	15.33%	23.70%
JPM	48.82%	692.34%	23.45%	25.57%	18.70%
KEY	69.11%	15.37%	1.64%	19.85%	10.78%
KMB	75.24%	8.51%	1.27%	11.79%	13.65%
KO	66.99%	69.65%	7.77%	19.80%	14.27%
KR	74.16%	63.36%	7.09%	14.87%	24.44%
LMT	69.92%	39.07%	-5.21%	26.21%	19.81%
MCD	54.14%	107.90%	10.38%	14.66%	12.01%
MDT	67.64%	410.84%	21.91%	17.52%	32.75%
MER	67.80%	199.22%	13.31%	26.32%	28.84%
MMM	63.37%	53.32%	4.26%	16.06%	13.20%
MO	77.08%	-32.67%	0.29%	22.09%	16.30%
MOLX	79.42%	-72.10%	-9.31%	25.81%	16.26%
NTRS	62.95%	203.39%	16.25%	23.92%	26.21%
ODP	40.74%	121.22%	10.29%	31.30%	15.65%
ORCL	88.61%	-34.27%	8.08%	52.10%	65.18%
OXY	52.53%	107.12%	7.24%	15.87%	10.03%
PBI	78.80%	-36.96%	-3.39%	12.96%	14.59%
PCAR	67.15%	-46.58%	-4.35%	24.15%	17.13%
PCL	92.53%	-10.11%	0.22%	28.91%	17.35%
PD	40.90%	77.75%	7.00%	18.73%	2.00%
PEP	76.40%	-38.36%	-1.79%	21.54%	12.64%
PFE	77.77%	77.98%	10.81%	19.82%	30.07%
PG	77.56%	32.85%	3.05%	15.91%	17.10%
PGN	74.32%	61.79%	5.76%	20.27%	12.41%
PGR	60.71%	466.54%	20.64%	28.09%	26.87%
PLL	86.53%	-74.30%	-12.69%	14.35%	5.02%
PPG	51.35%	123.96%	8.85%	19.52%	9.67%
RSH	38.47%	1006.85%	34.01%	52.72%	25.76%
S	48.94%	286.88%	15.31%	25.79%	17.99%
SBC	77.42%	-39.69%	-4.61%	14.90%	12.95%
SHW	93.70%	-75.73%	-11.26%	15.23%	10.41%
SLB	70.83%	-26.34%	2.52%	14.59%	13.43%
SO	72.81%	107.28%	6.86%	11.75%	16.06%
SUNW	82.05%	114.52%	20.13%	39.55%	61.23%
SWY	78.72%	300.53%	16.18%	16.09%	36.57%
T	42.59%	-40.50%	-3.63%	23.26%	-2.88%
TXU	52.06%	118.97%	9.40%	18.49%	9.85%
TYC	63.14%	251.14%	21.38%	23.30%	28.99%
UTX	74.50%	214.37%	13.36%	20.27%	24.62%
VZ	64.93%	-24.88%	0.82%	17.41%	11.79%
WFC	81.43%	54.73%	3.60%	16.97%	19.36%
WMB	70.51%	91.16%	13.28%	24.66%	19.15%

WMI	46.11%	272.64%	22.83%	31.03%	18.04%
XOM	94.13%	-29.98%	-2.74%	11.40%	11.55%
XRX	48.79%	-43.94%	2.63%	26.93%	6.98%

TABLA N°8.26:   APLICACIÓN DEL MOMENTUM PARA 15 DIAS.

(PERIODO 1992-2002)

MOMENTUM	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	70.45%	118.83%	10.57%	13.30%	19.98%
AEP	50.81%	159.30%	10.02%	16.55%	10.46%
AES	55.60%	149.54%	26.53%	40.91%	30.40%
AMAT	58.84%	560.67%	33.93%	50.69%	56.59%
AMR	59.01%	-17.58%	2.79%	27.33%	0.57%
AOL	43.63%	14361.27%	107.21%	111.22%	120.51%
APC	60.66%	128.65%	11.15%	23.39%	16.56%
AT	71.34%	19.41%	4.58%	21.00%	14.36%
AXP	71.17%	162.14%	10.13%	20.07%	24.30%
BA	66.09%	101.68%	9.88%	14.90%	14.05%
BAC	57.67%	39.28%	18.81%	20.45%	17.62%
BC	59.66%	45.25%	3.56%	19.34%	11.90%
BK	78.77%	329.19%	14.10%	13.49%	27.36%
BLS	70.31%	-62.33%	-5.80%	15.62%	14.06%
BMET	92.57%	-91.14%	-15.12%	20.40%	24.68%
BUD	91.41%	19.52%	4.47%	16.25%	19.38%
C	50.15%	1399.02%	35.87%	38.14%	32.97%
CAT	56.36%	218.17%	13.48%	24.47%	17.38%
CD	41.56%	985.47%	34.98%	47.67%	14.21%
CIN	50.13%	97.32%	8.66%	13.89%	10.56%
CL	46.48%	711.00%	26.34%	21.28%	19.86%
CMCSK	64.63%	97.17%	9.36%	29.58%	27.07%
COP	81.28%	5.20%	1.58%	14.80%	12.48%
COST	76.44%	81.52%	7.93%	26.38%	23.02%
CSC	63.37%	196.44%	12.38%	21.93%	19.73%

CSCO	85.17%	-12.09%	5.42%	37.32%	55.62%
CTAS	94.99%	-84.81%	-12.53%	25.94%	22.15%
CTL	62.51%	144.09%	11.79%	28.58%	16.50%
CUM	46.64%	174.98%	12.28%	22.45%	5.55%
CVX	71.47%	66.73%	7.09%	14.00%	13.45%
CZN	68.56%	-68.10%	-9.56%	21.00%	-0.45%
D	43.38%	198.22%	12.66%	17.55%	11.73%
DD	64.45%	39.88%	4.67%	14.53%	11.95%
DELL	84.81%	617.61%	39.91%	63.61%	21.40%
DG	55.60%	330.79%	24.17%	39.86%	26.23%
DIS	63.58%	11.07%	3.17%	24.90%	8.66%
DTE	84.16%	-7.10%	0.54%	12.45%	10.90%
DUK	43.97%	194.06%	13.98%	18.44%	13.18%
EK	34.07%	153.03%	11.74%	18.79%	3.50%
EMC	48.59%	2309.89%	52.87%	56.94%	70.70%
EP	49.13%	124.22%	15.39%	20.45%	17.06%
EXC	57.49%	44.82%	5.46%	18.03%	15.31%
F	90.94%	-84.67%	-14.57%	19.13%	5.16%
FDC	79.75%	10.82%	0.73%	20.81%	20.97%
FRE	50.62%	653.57%	24.86%	19.82%	24.56%
G	70.24%	61.00%	8.01%	16.00%	13.46%
GE	77.71%	319.06%	17.42%	20.76%	24.56%
GT	38.96%	28.49%	6.71%	19.16%	1.61%
GWW	66.50%	64.02%	4.71%	13.00%	9.87%
HD	75.61%	201.48%	16.02%	24.47%	22.38%
HMA	56.08%	1150.55%	31.58%	28.04%	35.57%
HON	45.15%	552.15%	21.08%	18.06%	13.99%
HPQ	66.13%	10.02%	3.86%	29.34%	17.63%
INTC	75.88%	87.12%	10.05%	25.67%	39.08%
JNJ	71.41%	136.85%	12.94%	13.00%	23.80%
JPM	51.98%	198.01%	15.48%	20.45%	18.65%
KEY	62.04%	147.88%	9.29%	21.33%	10.74%
KMB	84.07%	-40.61%	3.29%	13.42%	13.69%
KO	54.90%	171.12%	11.33%	12.41%	14.30%
KR	71.19%	163.07%	10.49%	13.23%	24.34%
LMT	73.05%	-14.25%	0.18%	23.30%	19.79%
MCD	59.70%	42.39%	7.99%	15.56%	11.98%
MDT	66.46%	643.22%	26.29%	22.83%	32.90%
MER	54.60%	645.90%	25.81%	28.32%	28.70%
MMM	67.54%	140.45%	7.86%	13.11%	13.21%
MO	78.84%	-3.41%	3.13%	25.90%	16.46%
MOLX	79.57%	-70.24%	-9.37%	21.56%	16.23%
NTRS	77.98%	111.15%	12.34%	26.21%	26.26%
ODP	35.82%	288.88%	21.37%	41.93%	15.56%
ORCL	73.53%	225.94%	21.66%	50.32%	64.99%
OXY	57.83%	61.48%	5.27%	17.58%	10.02%
PBI	82.65%	-25.05%	-2.26%	15.59%	14.60%

PCAR	77.33%	-67.52%	-10.31%	22.49%	17.12%
PCL	89.41%	-9.77%	-0.60%	19.70%	17.29%
PD	33.90%	118.51%	10.38%	18.71%	2.02%
PEP	72.22%	-8.46%	1.08%	15.30%	12.66%
PFE	68.01%	228.70%	18.81%	21.98%	30.18%
PG	71.39%	143074.00%	9.52%	16.70%	17.14%
PGN	45.32%	177.25%	11.97%	17.52%	12.36%
PGR	51.45%	629.74%	20.11%	24.92%	26.74%
PLL	73.92%	-11.33%	-1.56%	14.18%	5.05%
PPG	61.48%	108.88%	7.57%	12.69%	9.66%
RSH	34.89%	1037.81%	38.44%	56.86%	25.72%
S	56.24%	184.75%	13.37%	24.62%	17.82%
SBC	88.39%	-28.94%	-2.33%	12.96%	12.88%
SHW	69.47%	6.66%	1.12%	20.81%	10.12%
SLB	53.66%	162.88%	14.99%	28.07%	13.47%
SO	50.69%	208.71%	14.93%	18.95%	16.04%
SUNW	76.31%	51.99%	7.18%	28.32%	61.40%
SWY	76.57%	428.23%	23.04%	31.86%	36.47%
T	45.11%	29.35%	2.83%	24.04%	-2.97%
TXU	47.04%	122.27%	9.41%	20.10%	9.82%
TYC	69.55%	327.17%	20.62%	28.11%	29.01%
UTX	60.48%	344.48%	19.30%	20.74%	24.66%
VZ	75.19%	-43.62%	-2.74%	19.67%	11.73%
WFC	63.48%	337.98%	15.19%	16.28%	19.30%
WMB	80.25%	92.34%	2.95%	23.92%	19.01%
WMI	57.93%	173.50%	15.39%	22.72%	18.07%
XOM	95.43%	53.72%	-7.48%	9.11%	11.56%
XRX	63.41%	-63.12%	-3.04%	11.79%	7.00%

TABLA N°8.27:   APLICACIÓN DEL MOMENTUM PARA 20 DIAS.

(PERIODO 1992-2002)

MOMENTUM	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	76.18%	51.81%	6.63%	12.29%	19.00%
AEP	52.82%	137.51%	9.35%	21.19%	10.41%
AES	48.77%	875.02%	31.32%	37.75%	30.38%
AMAT	59.26%	504.59%	29.12%	44.53%	56.35%
AMR	54.09%	-38.70%	2.21%	33.94%	0.55%
AOL	28.67%	61677.26%	133.39%	134.97%	120.20%
APC	36.38%	183.95%	27.02%	29.48%	16.53%
AT	73.45%	41.15%	8.33%	27.28%	14.29%

AXP	65.50%	154.67%	10.52%	26.94%	24.22%
BA	68.73%	84.78%	8.07%	15.13%	14.05%
BAC	48.19%	401.28%	17.88%	18.57%	17.62%
BC	68.79%	-19.46%	-2.17%	18.33%	11.90%
BK	72.85%	498.75%	20.91%	14.90%	27.35%
BLS	76.69%	-68.30%	-9.31%	15.23%	14.05%
BMET	86.93%	-77.73%	-9.10%	18.44%	24.84%
BUD	91.43%	74.95%	6.12%	12.45%	19.44%
C	61.69%	375.78%	19.78%	26.36%	32.77%
CAT	23.69%	175.19%	13.94%	23.15%	17.30%
CD	55.46%	291.46%	19.90%	35.85%	13.92%
CIN	78.10%	36.79%	2.35%	9.85%	10.53%
CL	78.82%	145.55%	11.51%	17.15%	19.91%
CMCSK	86.37%	-36.23%	0.78%	26.08%	26.96%
COP	68.85%	29.32%	5.06%	20.49%	12.47%
COST	82.36%	-24.86%	1.12%	31.45%	23.03%
CSC	48.94%	377.54%	19.91%	17.41%	19.70%
CSCO	86.12%	-19.99%	11.27%	52.75%	55.60%
CTAS	91.10%	-59.93%	-6.62%	15.36%	22.21%
CTL	54.15%	145.17%	12.27%	27.09%	16.04%
CUM	47.94%	12.57%	5.66%	26.59%	5.51%
CVX	79.29%	21.95%	3.19%	12.88%	13.45%
CZN	60.52%	-44.14%	-6.60%	15.84%	-0.52%
D	48.12%	100.14%	8.12%	12.81%	11.68%
DD	53.40%	52.00%	4.24%	11.31%	11.96%
DELL	68.78%	1363.01%	49.31%	68.45%	91.69%
DG	52.41%	788.20%	30.63%	31.54%	26.08%
DIS	61.20%	-20.68%	1.79%	18.14%	8.66%
DTE	67.08%	13.73%	1.59%	11.09%	10.89%
DUK	61.99%	46.31%	6.04%	14.14%	13.14%
EK	44.36%	75.53%	7.98%	22.32%	3.42%
EMC	68.05%	507.98%	28.97%	44.49%	69.99%
EP	46.33%	247.95%	18.27%	24.88%	17.03%
EXC	54.93%	138.12%	11.33%	20.90%	15.26%
F	75.94%	-69.91%	-8.98%	27.60%	5.10%
FDC	81.88%	0.42%	2.04%	16.97%	20.94%
FRE	56.25%	195.88%	14.00%	16.67%	24.57%
G	64.92%	174.91%	12.77%	15.36%	13.50%
GE	72.26%	152.34%	13.97%	22.67%	24.55%
GT	49.19%	-34.66%	-0.23%	23.75%	1.52%
GWW	78.96%	-17.43%	-0.56%	22.47%	9.88%
HD	65.82%	169.44%	14.95%	19.95%	22.46%
HMA	64.94%	249.27%	19.66%	28.60%	35.55%
HON	57.55%	32.21%	6.99%	20.52%	13.94%
HPQ	70.65%	105.47%	8.14%	18.73%	17.64%
INTC	50.02%	447.39%	27.10%	31.40%	38.95%
JNJ	69.21%	379.15%	20.14%	18.17%	23.91%

JPM	42.83%	578.84%	24.70%	21.35%	18.58%
KEY	59.80%	42.14%	4.14%	18.79%	10.02%
KMB	86.89%	-41.38%	-2.95%	17.83%	13.73%
KO	62.37%	90.69%	6.21%	11.00%	14.33%
KR	73.47%	58.34%	7.74%	18.60%	24.24%
LMT	61.29%	20.50%	3.47%	24.35%	19.76%
MCD	65.87%	116.82%	11.35%	15.33%	11.97%
MDT	74.56%	535.13%	23.21%	23.77%	33.06%
MER	51.38%	1166.73%	31.51%	25.63%	28.56%
MMM	64.74%	122.65%	9.63%	17.03%	13.22%
MO	72.33%	9.62%	4.97%	27.91%	16.60%
MOLX	77.79%	-48.61%	-3.14%	23.02%	16.19%
NTRS	69.24%	218.38%	16.55%	22.41%	26.30%
ODP	48.95%	81.03%	12.11%	37.79%	15.48%
ORCL	41.20%	86.49%	23.51%	69.57%	64.77%
OXY	44.54%	276.23%	13.88%	15.46%	10.01%
PBI	65.61%	42.02%	6.45%	14.07%	14.61%
PCAR	59.33%	-29.59%	-1.08%	19.57%	17.12%
PCL	92.33%	8.53%	0.62%	22.45%	17.22%
PD	41.66%	68.17%	6.27%	13.23%	2.05%
PEP	66.69%	28.71%	3.66%	21.12%	12.67%
PFE	63.15%	348.05%	21.58%	21.10%	30.29%
PG	80.28%	42.51%	7.30%	22.52%	17.18%
PGN	50.19%	131.61%	10.41%	16.28%	12.30%
PGR	58.12%	818.84%	26.82%	11.58%	26.58%
PLL	82.72%	-69.83%	-11.49%	11.75%	5.08%
PPG	25.83%	398.15%	18.49%	15.07%	9.66%
RSH	43.64%	678.35%	33.40%	48.87%	25.69%
S	59.40%	197.33%	11.79%	26.15%	17.65%
SBC	71.92%	-26.98%	-2.88%	14.11%	12.82%
SHW	79.88%	-19.99%	-1.89%	16.40%	10.08%
SLB	62.95%	35.35%	8.15%	16.22%	13.51%
SO	59.52%	166.25%	11.52%	14.14%	16.01%
SUNW	68.45%	23.82%	24.89%	61.43%	61.27%
SWY	66.65%	313.37%	18.76%	24.02%	36.38%
T	45.99%	-2.09%	-0.77%	20.76%	-3.05%
TXU	54.78%	72.61%	5.97%	13.11%	9.79%
TYC	77.06%	81.98%	11.59%	21.93%	29.03%
UTX	83.41%	33.81%	8.24%	22.47%	24.67%
VZ	83.12%	-59.94%	-7.62%	15.87%	11.66%
WFC	62.60%	283.59%	14.18%	12.85%	19.25%
WMB	59.34%	125.04%	11.03%	25.77%	18.88%
WMI	50.73%	75.16%	15.93%	37.34%	18.09%
XOM	96.91%	-45.46%	-5.11%	10.54%	11.58%
XRX	47.44%	230.45%	24.50%	41.23%	7.04%

DATOS SEMANALES:

TABLA N°8.28:   **APLICACIÓN DEL MOMENTUM PARA 5 SEMANAS.**
                    (PERIODO 1992-2002)

MOMENTUM ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	86.67%	11.27%	3.82%	14.25%	19.26%
AEP	62.58%	69.58%	6.90%	16.12%	10.53%
AES	77.85%	-35.84%	11.75%	51.00%	30.71%
AMAT	80.86%	59.35%	14.15%	47.39%	56.76%
AMR	46.02%	-32.87%	-0.28%	26.42%	0.68%
AOL	79.35%	429.21%	31.77%	53.39%	121.37%
APC	59.14%	5.82%	4.82%	27.89%	16.68%
AT	73.33%	54.99%	6.81%	19.44%	14.47%
AXP	77.85%	145.52%	10.56%	21.33%	24.40%
BA	68.82%	-1.46%	2.00%	18.57%	14.19%
BAC	59.35%	188.38%	11.97%	19.00%	17.81%
BC	45.59%	209.33%	13.53%	16.28%	11.95%
BK	75.91%	114.86%	10.40%	24.41%	27.64%
BLS	68.39%	19.17%	6.51%	13.30%	14.23%
BMET	76.99%	-12.07%	4.94%	20.86%	25.05%
BUD	86.45%	-27.10%	-2.57%	15.23%	19.60%
C	87.74%	-31.79%	-1.67%	17.46%	33.07%
CAT	70.11%	53.63%	5.73%	19.97%	17.59%
CD	48.60%	99.11%	9.31%	27.60%	14.25%
CIN	74.62%	56.66%	4.13%	11.66%	10.62%
CL	74.41%	58.13%	7.04%	21.05%	20.07%
CMCSK	65.38%	-12.94%	-1.03%	25.10%	27.27%
COP	83.44%	16.75%	0.66%	12.53%	12.60%

COST	76.34%	-56.51%	-2.83%	23.98%	23.29%
CSC	70.32%	82.15%	9.83%	25.96%	19.97%
CSCO	93.55%	-22.97%	5.09%	44.71%	56.37%
CTAS	90.75%	5.70%	-0.03%	11.09%	22.43%
CTL	63.01%	66.25%	7.19%	15.94%	16.29%
CUM	59.57%	-6.22%	1.76%	23.09%	5.60%
CVX	80.65%	12.96%	0.91%	8.49%	13.60%
CZN	40.00%	-39.52%	0.58%	20.64%	-0.46%
D	67.10%	33.47%	3.29%	11.40%	11.81%
DD	71.61%	18.63%	3.81%	18.97%	12.12%
DELL	75.48%	536.28%	36.59%	16.46%	92.60%
DG	55.27%	443.99%	24.67%	42.01%	26.36%
DIS	74.19%	-2.41%	-0.48%	17.97%	8.79%
DTE	61.51%	49.09%	3.95%	10.77%	10.99%
DUK	53.98%	126.41%	10.96%	16.19%	13.27%
EK	73.76%	-24.56%	-2.33%	21.91%	3.54%
EMC	80.00%	-62.64%	4.18%	50.14%	70.86%
EP	75.91%	-11.40%	3.41%	19.65%	17.34%
EXC	37.85%	208.04%	14.39%	18.68%	15.36%
F	66.24%	-49.85%	-3.47%	15.59%	5.27%
FDC	76.56%	187.68%	10.59%	15.30%	21.19%
FRE	84.52%	110.71%	8.20%	13.56%	24.79%
G	75.05%	18.08%	2.80%	18.38%	13.63%
GE	88.39%	51.84%	4.02%	18.92%	24.84%
GT	51.83%	-31.42%	-0.45%	21.31%	1.73%
GWW	46.24%	132.57%	12.24%	19.05%	9.97%
HD	77.85%	20.39%	3.25%	18.55%	22.79%
HMA	87.53%	-1.22%	2.04%	25.69%	35.81%
HON	64.30%	30.86%	7.78%	19.95%	14.17%
HPQ	64.73%	6.15%	5.52%	29.31%	17.91%
INTC	72.26%	103.29%	12.43%	23.47%	39.33%
JNJ	71.40%	103.39%	11.80%	19.97%	24.14%
JPM	70.97%	10.28%	0.63%	13.64%	18.85%
KEY	66.67%	34.10%	3.33%	18.47%	10.89%
KMB	76.34%	-3.02%	-0.15%	11.92%	13.84%
KO	81.94%	6.88%	0.88%	15.03%	14.48%
KR	84.52%	46.70%	3.25%	19.60%	24.55%
LMT	77.63%	12.62%	0.36%	15.13%	19.84%
MCD	58.06%	142.68%	11.05%	14.18%	12.13%
MDT	92.69%	-13.27%	4.71%	21.86%	33.35%
MER	62.58%	343.50%	18.52%	25.20%	28.88%
MMM	78.49%	41.85%	4.16%	15.52%	13.32%
MO	46.45%	336.33%	21.82%	32.30%	16.76%
MOLX	79.35%	-50.68%	-1.67%	30.32%	16.36%
NTRS	68.82%	111.41%	7.88%	19.36%	26.50%
ODP	67.74%	-47.36%	-2.98%	25.08%	15.81%
ORCL	70.97%	48.51%	11.28%	37.84%	65.42%

OXY	48.39%	287.46%	15.21%	22.27%	10.14%
PBI	63.23%	25.98%	3.99%	18.22%	14.77%
PCAR	56.56%	57.52%	8.07%	26.51%	17.28%
PCL	77.42%	52.48%	5.43%	19.21%	17.41%
PD	52.90%	-15.89%	2.91%	22.76%	12.13%
PEP	77.20%	-34.44%	-1.31%	19.18%	12.80%
PFE	80.22%	110.69%	12.56%	29.24%	30.58%
PG	92.47%	-39.14%	-3.13%	21.70%	17.30%
PGN	64.30%	108.44%	8.85%	16.46%	12.40%
PGR	50.32%	1071.40%	29.99%	30.23%	26.92%
PLL	62.15%	-13.09%	-1.07%	14.49%	5.17%
PPG	65.59%	19.10%	2.45%	12.61%	9.79%
RSH	75.91%	-4.86%	6.53%	34.32%	25.78%
S	67.53%	48.27%	5.16%	22.29%	17.90%
SBC	79.35%	2.78%	0.42%	14.56%	12.99%
SHW	75.70%	-2.02%	-0.33%	12.04%	10.18%
SLB	77.42%	-50.54%	-3.28%	20.20%	13.64%
SO	66.88%	61.42%	5.59%	13.08%	16.12%
SUNW	67.31%	-5.76%	14.90%	48.93%	62.43%
SWY	83.01%	192.88%	14.50%	20.20%	36.71%
T	48.17%	-20.02%	-1.06%	22.07%	-2.96%
TXU	64.09%	47.22%	3.37%	11.92%	9.86%
TYC	86.67%	118.02%	8.54%	15.94%	29.42%
UTX	81.51%	29.91%	4.97%	14.73%	24.96%
VZ	75.70%	-46.84%	-2.03%	19.90%	11.82%
WFC	66.88%	139.68%	9.53%	15.94%	19.42%
WMB	63.87%	15.98%	8.42%	20.74%	19.22%
WMI	74.84%	-8.31%	0.38%	27.40%	18.26%
XOM	90.75%	-42.13%	-4.76%	8.49%	11.72%
XRX	64.52%	-56.37%	-1.54%	28.76%	7.12%

TABLA N°8.29:   APLICACIÓN DEL MOMENTUM PARA 10 SEMANAS.

   (PERIODO 1992-2002)

MOMENTUM	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	88.04%	-5.94%	2.53%	16.22%	19.34%
AEP	63.91%	39.60%	5.20%	12.45%	10.35%
AES	72.61%	-23.77%	13.37%	38.31%	30.52%
AMAT	82.39%	-22.64%	6.24%	48.05%	55.63%
AMR	55.00%	-59.33%	-4.59%	18.08%	0.55%
AOL	63.70%	624.33%	40.58%	66.16%	119.35%
APC	67.17%	53.70%	5.92%	27.82%	16.27%

AT	50.87%	113.79%	11.42%	15.65%	14.20%
AXP	91.52%	59.33%	3.63%	25.12%	23.92%
BA	68.70%	5.45%	2.72%	18.79%	14.29%
BAC	58.26%	192.33%	12.65%	21.12%	17.79%
BC	48.04%	261.72%	15.08%	18.84%	11.89%
BK	91.09%	53.76%	6.05%	19.90%	27.60%
BLS	66.74%	-21.79%	1.53%	12.41%	14.19%
BMET	88.91%	-49.26%	-3.40%	19.29%	25.75%
BUD	93.26%	-13.73%	0.73%	12.73%	19.94%
C	72.39%	111.31%	9.21%	25.69%	32.14%
CAT	78.26%	-33.31%	-1.38%	22.49%	17.11%
CD	55.65%	-5.66%	2.68%	30.92%	12.72%
CIN	58.04%	87.75%	5.13%	11.14%	10.48%
CL	70.87%	120.17%	10.05%	17.83%	20.31%
CMCSK	53.91%	104.02%	7.83%	25.85%	26.23%
COP	86.30%	-25.78%	-2.47%	15.30%	12.38%
COST	67.61%	-47.04%	-0.27%	24.25%	23.34%
CSC	66.96%	-12.68%	5.16%	25.28%	19.77%
CSCO	65.87%	128.35%	15.42%	37.71%	56.13%
CTAS	85.43%	87.39%	6.70%	12.25%	22.59%
CTL	63.91%	57.11%	6.93%	24.29%	16.29%
CUM	42.39%	35.94%	5.63%	24.33%	5.39%
CVX	81.96%	37.32%	2.85%	10.54%	13.37%
CZN	32.61%	23.27%	1.82%	17.69%	-0.82%
D	62.17%	29.62%	2.33%	10.20%	11.57%
DD	69.13%	14.28%	3.70%	15.33%	12.23%
DELL	91.74%	112.17%	28.55%	61.80%	94.06%
DG	69.78%	102.03%	10.56%	37.78%	25.49%
DIS	76.96%	-33.73%	-2.49%	16.25%	8.75%
DTE	58.04%	45.06%	3.49%	10.00%	10.96%
DUK	72.39%	6.92%	0.26%	13.78%	13.11%
EK	58.91%	4.70%	-0.20%	15.97%	3.13%
EMC	74.78%	-60.39%	-0.69%	37.83%	67.03%
EP	68.70%	-48.56%	3.68%	21.02%	17.15%
EXC	57.61%	20.64%	2.94%	16.76%	15.20%
F	56.30%	28.78%	2.63%	17.83%	4.77%
FDC	90.43%	-39.64%	-1.65%	17.55%	20.94%
FRE	92.61%	8.87%	2.76%	22.43%	24.76%
G	52.83%	163.86%	12.63%	13.67%	13.74%
GE	88.70%	-30.90%	0.44%	21.86%	24.79%
GT	39.57%	56.25%	10.26%	22.27%	1.24%
GWW	67.39%	24.94%	4.60%	17.20%	10.02%
HD	75.00%	-1.81%	2.50%	17.49%	23.10%
HMA	82.82%	50.93%	7.70%	29.38%	35.44%
HON	55.00%	145.90%	13.33%	12.49%	13.91%
HPQ	73.04%	-50.10%	-3.49%	27.77%	17.81%
INTC	56.30%	412.42%	24.06%	30.92%	38.55%

JNJ	87.83%	67.07%	8.94%	17.78%	24.55%
JPM	63.04%	71.76%	8.13%	16.34%	18.60%
KEY	85.22%	-24.25%	-2.15%	21.95%	10.87%
KMB	82.39%	-2.07%	1.08%	13.93%	14.01%
KO	73.26%	34.58%	2.29%	16.82%	14.54%
KR	90.65%	-19.58%	1.78%	24.64%	24.07%
LMT	66.09%	89.34%	6.79%	18.08%	19.63%
MCD	64.35%	41.29%	5.73%	14.93%	12.02%
MDT	79.33%	76.44%	12.85%	26.74%	33.99%
MER	69.57%	121.12%	12.62%	27.93%	28.15%
MMM	84.13%	-16.89%	0.31%	11.53%	13.39%
MO	62.61%	42.00%	7.48%	19.97%	17.36%
MOLX	67.39%	69.73%	9.07%	32.30%	16.18%
NTRS	66.74%	84.43%	6.84%	20.81%	26.65%
ODP	48.70%	50.85%	12.34%	29.80%	15.18%
ORCL	68.48%	205.51%	19.81%	40.19%	63.92%
OXY	63.91%	54.95%	3.54%	17.41%	9.99%
PBI	81.74%	-9.22%	0.70%	16.82%	14.78%
PCAR	6978.00%	8.94%	4.51%	22.41%	17.24%
PCL	78.70%	34.63%	3.54%	15.75%	16.86%
PD	51.96%	13.80%	5.31%	23.94%	2.19%
PEP	70.00%	8.50%	0.82%	11.83%	12.90%
PFE	70.43%	257.57%	15.52%	22.74%	31.07%
PG	91.30%	-28.94%	-2.29%	16.88%	17.47%
PGN	70.00%	54.09%	3.69%	14.11%	12.20%
PGR	68.91%	113.96%	10.46%	24.88%	26.22%
PLL	42.83%	50.48%	5.69%	14.70%	5.28%
PPG	67.83%	6.26%	1.95%	16.31%	9.69%
RSH	68.70%	8.91%	5.63%	25.71%	25.59%
S	64.78%	98.93%	9.16%	25.79%	17.12%
SBC	70.22%	40.71%	5.08%	15.78%	12.79%
SHW	58.91%	140.33%	12.04%	15.68%	9.99%
SLB	87.61%	-77.36%	-12.56%	18.25%	13.81%
SO	63.48%	104.13%	5.81%	7.81%	15.98%
SUNW	71.52%	-17.08%	15.83%	46.26%	63.34%
SWY	88.91%	46.23%	5.55%	20.40%	36.17%
T	35.43%	-1.08%	4.44%	27.64%	-3.41%
TXU	62.61%	25.43%	1.98%	14.66%	9.75%
TYC	85.43%	13.36%	9.07%	28.32%	29.51%
UTX	76.74%	73.83%	9.83%	19.92%	24.94%
VZ	72.61%	-6.18%	1.13%	20.81%	11.52%
WFC	73.26%	101.59%	6.80%	17.18%	19.19%
WMB	91.30%	-92.10%	-2.89%	21.10%	18.59%
WMI	73.48%	5.18%	4.40%	23.00%	18.41%
XOM	93.91%	-30.59%	-2.61%	11.00%	11.80%
XRX	70.00%	-69.72%	-4.74%	29.46%	7.26%

TABLA N°8.30:   **APLICACIÓN DEL MOMENTUM PARA 15 SEMANAS.**

                       (PERIODO 1992-2002)

MOMENTUM ACCION	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ADP	92.53%	-54.09%	-4.81%	14.11%	19.46%
AEP	63.08%	31.67%	2.94%	12.41%	10.21%
AES	65.49%	49.50%	14.03%	35.04%	30.42%
AMAT	78.90%	-60.43%	-5.66%	32.97%	55.18%
AMR	56.70%	7.15%	0.67%	15.59%	0.46%
AOL	86.59%	417.54%	35.33%	74.64%	117.88%
APC	61.98%	118.30%	10.91%	29.03%	15.79%
AT	63.52%	14.95%	5.26%	17.41%	14.13%
AXP	68.79%	102.44%	9.59%	23.56%	23.66%
BA	76.92%	-16.77%	-1.70%	17.97%	14.37%
BAC	58.90%	190.07%	12.08%	13.23%	18.00%
BC	46.59%	240.36%	18.11%	23.75%	11.81%
BK	85.93%	8.94%	2.51%	18.73%	27.76%
BLS	77.58%	-46.24%	-4.07%	13.42%	14.15%
BMET	73.63%	-46.89%	-0.38%	19.95%	26.35%
BUD	96.04%	-18.33%	-1.96%	10.91%	20.31%
C	79.34%	19.87%	2.58%	18.89%	31.54%
CAT	79.12%	-36.37%	-3.44%	20.49%	16.59%
CD	50.11%	64.26%	10.07%	31.67%	11.71%
CIN	68.79%	69.62%	3.91%	13.56%	10.40%
CL	74.51%	64.03%	8.45%	21.47%	20.54%
CMCSK	80.66%	-51.32%	-5.09%	26.17%	25.12%
COP	80.66%	-5.82%	-1.05%	14.11%	12.15%
COST	84.40%	-38.24%	-0.75%	18.57%	23.70%
CSC	56.92%	27.37%	7.11%	24.19%	19.66%
CSCO	80.66%	27.90%	7.11%	32.26%	56.08%
CTAS	73.63%	114.97%	10.66%	17.58%	22.75%
CTL	76.26%	-7.23%	1.38%	18.79%	16.44%
CUM	39.78%	108.66%	10.22%	24.17%	4.99%
CVX	69.23%	84.71%	6.72%	14.42%	13.09%
CZN	20.66%	115.94%	10.41%	19.29%	-1.17%
D	64.84%	70.79%	4.59%	8.37%	11.44%
DD	71.21%	12.08%	2.45%	18.06%	12.30%
DELL	70.77%	10.81%	49.63	66.28%	95.47%
DG	83.74%	-29.99%	-1.46%	23.96%	24.94%
DIS	60.44%	52.59%	6.11%	14.97%	8.84%
DTE	54.29%	52.52%	3.72%	13.86%	11.02%
DUK	77.80%	17.77%	1.16%	11.70%	12.99%
EK	60.88%	25.33%	1.07%	15.52%	2.54%

EMC	70.77%	63.57%	13.69%	46.01%	64.92%
EP	69.67%	-13.61%	3.39%	19.75%	17.05%
EXC	36.48%	256.91%	15.15%	17.55%	15.20%
F	78.02%	-50.92%	-7.60%	11.14%	4.19%
FDC	85.71%	11.02%	1.49%	20.86%	20.82%
FRE	83.08%	37.12%	4.84%	14.00%	24.91%
G	75.82%	-30.72%	-1.71%	11.75%	13.85%
GE	84.40%	24.67%	1.90%	15.43%	24.78%
GT	50.77%	-17.30%	2.35%	23.47%	0.98%
GWW	44.62%	134.22%	13.34%	30.59%	10.17%
HD	80.00%	13.10%	4.37%	17.75%	23.43%
HMA	86.37%	-45.13%	-0.17%	31.14%	35.12%
HON	72.09%	-8.30%	1.54%	21.14%	13.73%
HPQ	73.19%	24.97%	-1.74%	23.04%	17.73%
INTC	67.91%	181.02%	17.65%	34.79%	38.16%
JNJ	87.03%	28.87%	7.45%	16.67%	24.95%
JPM	66.15%	37.05%	5.98%	20.59%	18.69%
KEY	80.44%	-17.16%	-1.01%	19.52%	10.96%
KMB	84.40%	-43.81%	-3.36%	15.81%	14.26%
KO	81.32%	0.55%	-0.85%	16.76%	14.64%
KR	77.14%	5.41%	3.76%	17.29%	23.93%
LMT	70.55%	25.62%	3.35%	13.49%	19.33%
MCD	76.92%	-9.02%	0.17%	13.15%	11.92%
MDT	88.57%	7.50%	7.81%	24.29%	34.63%
MER	73.63%	9.85%	1.01%	20.10%	27.78%
MMM	61.32%	54.28%	6.81%	17.12%	13.47%
MO	70.11%	24.25%	8.85%	26.51%	17.86%
MOLX	67.47%	64.44%	6.56%	37.46%	16.04%
NTRS	75.60%	82.88%	5.30%	16.67%	26.95%
ODP	49.23%	32.62%	10.63%	32.43%	14.77%
ORCL	77.80%	40.87%	7.71%	38.85%	62.74%
OXY	60.88%	101.78%	7.58%	18.57%	9.98%
PBI	66.15%	10.04%	2.53%	19.75%	14.84%
PCAR	81.54%	-61.00%	-5.53%	17.92%	17.22%
PCL	54.29%	138.57%	9.06%	8.72%	16.12%
PD	46.59%	31.22%	6.59%	22.20%	2.19%
PEP	78.68%	-28.55%	-2.37%	14.56%	13.07%
PFE	82.20%	48.78%	10.66%	23.81%	31.56%
PG	92.31%	-33.02%	-1.19%	20.12%	17.65%
PGN	72.31%	63.53%	3.84%	12.04%	12.14%
PGR	64.62%	319.34%	15.25%	19.87%	25.88%
PLL	59.56%	-17.51%	-0.83%	16.16%	5.40%
PPG	72.97%	-10.24%	0.58%	56.39%	9.60%
RSH	62.20%	64.38%	12.52%	38.61%	25.15%
S	51.87%	135.24%	11.15%	23.30%	16.35%
SBC	78.48%	-25.33%	-1.31%	14.00%	12.60%
SHW	60.66%	135.75%	12.45%	19.70%	9.87%

SLB	78.68%	-67.91%	-9.17%	19.97%	13.95%
SO	70.55%	42.11%	1.44%	11.53%	15.87%
SUNW	75.38%	-15.65%	4.58%	36.54%	64.28%
SWY	82.64%	71.18%	6.81%	18.57%	35.94%
T	73.41%	-83.94%	-13.30%	24.41%	-3.71%
TXU	65.05%	36.16%	1.96%	11.92%	9.72%
TYC	73.63%	100.97%	10.03%	19.47%	29.58%
UTX	80.00%	58.28%	6.97%	15.33%	24.72%
VZ	83.30%	-35.84%	-2.50%	17.12%	11.24%
WFC	85.49%	-7.71%	-2.02%	10.39%	19.26%
WMB	80.66%	-59.78%	-0.76%	24.62%	18.21%
WMI	60.22%	18.20%	9.26%	31.69%	18.84%
XOM	95.16%	-38.83%	-4.58%	13.30%	11.85%
XRX	78.24%	-80.06%	-8.80%	24.70%	7.28%

TABLA N°8.31: **APLICACIÓN DEL MOMENTUM PARA 20 SEMANAS.**

(PERIODO 1992-2002)

MOMENTUM	FREC	RENT PERIODO	RPA TECNICA	D.E.	RPA PAS
ACCION					
ADP	92.44%	-27.66%	-0.41%	15.62%	19.62%
AEP	65.11%	42.33%	3.29%	12.08%	10.08%
AES	70.89%	-37.87%	14.95%	40.41%	30.41%
AMAT	69.11%	80.25%	12.21%	40.35%	54.60%
AMR	44.67%	46.45%	5.49%	15.72%	0.41%
AOL	76.00%	472.44%	39.25%	69.77%	117.74%
APC	63.33%	107.75%	9.52%	26.51%	15.40%
AT	73.11%	-1.01%	4.06%	25.88%	14.09%
AXP	84.00%	-10.29%	0.11%	19.29%	23.56%
BA	62.67%	-8.23%	3.06%	21.68%	14.37%
BAC	71.78%	57.47%	4.40%	12.61%	18.22%
BC	45.33%	265.28%	18.59%	27.31%	11.80%
BK	84.44%	46.49%	7.04%	19.57%	27.93%
BLS	68.44%	16.96%	7.13%	23.92%	14.17%
BMET	96.22%	-78.36%	-10.03%	16.06%	27.04%
BUD	95.56%	-18.27%	-2.73%	12.53%	20.68%
C	76.00%	-13.94%	-3.28%	14.11%	31.17%
CAT	76.22%	-10.28%	1.29%	21.02%	16.08%
CD	62.67%	-6.29%	5.04%	31.95%	10.89%
CIN	52.89%	87.15%	4.72%	8.94%	10.31%
CL	68.22%	162.95%	14.63%	25.32%	10.68%
CMCSK	82.44%	-57.69%	-9.14%	23.43%	24.38%
COP	77.56%	-6.82%	0.00%	13.19%	12.08%

COST	71.56%	-12.92%	4.05%	19.34%	23.91%
CSC	72.00%	208.69%	17.63%	25.22%	19.61%
CSCO	69.33%	315.96%	18.71%	29.46%	55.98%
CTAS	89.78%	18.53%	2.92%	13.34%	22.80%
CTL	76.67%	-42.90%	-2.27%	19.21%	16.70%
CUM	46.89%	30.50%	6.64%	28.16%	4.66%
CVX	92.89%	-3.97%	-0.22%	11.14%	12.90%
CZN	41.78%	-18.35%	-2.53%	22.76%	-1.54%
D	61.56%	68.47%	5.09%	12.65%	11.34%
DD	89.33%	-39.36%	-3.08%	16.55%	12.41%
DELL	78.00%	3.90%	43.03	63.77%	97.01%
DG	69.56%	25.10%	8.75%	41.80%	24.25%
DIS	69.78%	-18.43%	0.10%	14.11%	8.91%
DTE	54.67%	120.69%	7.13%	10.34%	11.14%
DUK	57.11%	105.76%	7.52%	9.00%	12.89%
EK	53.56%	65.24%	4.41%	15.94%	2.03%
EMC	78.00%	-14.73%	4.88%	36.26%	63.52%
EP	67.11%	10.00%	6.18%	20.15%	17.06%
EXC	42.44%	149.21%	11.53%	18.84%	15.19%
F	49.56%	19.19%	3.58%	11.18%	3.67%
FDC	83.33%	-28.81%	1.46%	24.88%	20.77%
FRE	93.11%	-37.90%	-3.93%	14.39%	25.09%
G	70.22%	72.88%	9.20%	22.16%	13.96%
GE	88.00%	-13.84%	0.36%	14.39%	24.78%
GT	49.33%	-21.14%	1.08%	18.60%	0.61%
GWW	50.22%	124.11%	10.71%	15.07%	10.29%
HD	96.22%	-77.40%	-7.99%	20.47%	23.89%
HMA	90.44%	-71.32%	-8.59%	25.92%	34.85%
HON	70.00%	12.19%	3.61%	18.33%	13.54%
HPQ	70.89%	-28.12%	-0.63%	29.29%	17.74%
INTC	69.33%	71.48%	12.32%	25.50%	38.09%
JNJ	85.56%	59.40%	6.69%	14.53%	25.37%
JPM	70.77%	-7.51%	2.21%	22.45%	18.78%
KEY	74.67%	-13.85%	-2.28%	15.30%	11.12%
KMB	85.56%	-17.90%	0.04%	16.40%	14.56%
KO	82.67%	-21.23%	-2.00%	15.13%	14.74%
KR	91.56%	-51.91%	-4.54%	20.59%	23.80%
LMT	74.44%	9.08%	0.99%	20.20%	19.25%
MCD	64.67%	-22.82%	-0.84%	10.20%	11.87%
MDT	69.56%	217.40%	21.65%	28.18%	35.15%
MER	69.78%	60.42%	6.03%	19.52%	27.51%
MMM	85.11%	-23.79%	-1.22%	11.96%	13.50%
MO	56.67%	151.87%	14.15%	24.58%	18.39%
MOLX	73.11%	-21.51%	-2.12%	16.61%	15.87%
NTRS	75.33%	-38.04%	-3.07%	21.49%	27.28%
ODP	55.11%	62.85%	17.39%	44.59%	14.34%
ORCL	71.78%	81.91%	14.53%	32.14%	61.46%

OXY	73.56%	-0.22%	-1.10%	16.64%	10.04%
PBI	70.22%	-7.42%	2.87%	20.15%	14.91%
PCAR	63.78%	18.28%	9.46%	28.81%	17.28%
PCL	67.33%	97.77%	8.41%	16.64%	15.33%
PD	32.67%	135.57%	11.87%	20.17%	2.15%
PEP	77.33%	-38.71%	-3.72%	13.49%	13.25%
PFE	77.78%	157.46%	12.25%	16.43%	32.02%
PG	78.44%	-4.96%	-0.14%	11.70%	17.79%
PGN	70.89%	52.51%	4.20%	14.25%	12.12%
PGR	58.67%	419.41%	21.35%	27.95%	25.67%
PLL	57.78%	-4.77%	1.61%	12.85%	5.51%
PPG	47.11%	143.22%	11.30%	14.70%	9.51%
RSH	74.44%	-2.02%	4.35%	27.02%	24.79%
S	67.33%	31.73%	2.51%	16.34%	15.74%
SBC	79.11%	-28.03%	0.80%	17.83%	12.48%
SHW	76.89%	-32.99%	-3.92%	11.75%	9.86%
SLB	72.89%	-45.48%	-2.20%	27.51%	14.08%
SO	67.33%	90.44%	5.40%	11.75%	15.79%
SUNW	76.67%	51.96%	15.30%	39.06%	65.18%
SWY	86.00%	63.18%	10.27%	23.66%	35.85%
T	46.89%	-41.39%	-4.32%	25.57%	-3.85%
TXU	58.67%	39.06%	3.26%	9.59%	9.73%
TYC	85.56%	-1.81%	7.02%	21.61%	29.71%
UTX	81.56%	85.45%	9.83%	20.52%	24.59%
VZ	78.22%	-31.50%	-1.10%	15.87%	11.10%
WFC	74.89%	20.56%	1.65%	18.14%	19.34%
WMB	68.44%	41.80%	0.23%	20.95%	18.01%
WMI	74.89%	-21.12%	4.47%	30.98%	19.25%
XOM	91.11%	-49.67%	-6.27%	9.75%	11.95%
XRX	68.67%	-53.32%	-0.14%	27.95%	7.23%

9.- BIBLIOGRAFÍA.

- Amat, Oriol y Xavier Puig (1997). "Análisis Técnico Bursátil", *Sexta Edición - {S.I}.*

- Fama, Eugene (1970). "Efficient Capital Markets: a Review of Theory and Empirical Work", *Journal of Finance 25, pp.338-417.*

- Gregoire, Jorge (1985). "El ajuste de los precios accionarios a la información: Resultados Empíricos", *Documento de Trabajo.*

- Gregoire, Jorge y Salvador Zurita (1993), "Información y Mercado de Capitales". *Serie Investigación, N°44.*

- Moore, David (1995). "Estadística Aplicada Básica", *Quinta Edición*, *Antoni Bosch Editor.*

- Parisi S., Antonino , Franco Parisi F. y Antonino Parisi F. (CD) "Teoria de Inversiones".