

The Effective Volume Investment Method

The Effective Volume (EV) method is first and foremost a statistical method for detecting institutional accumulation/distribution at the stock level. Combined to value measuring methods, EV has shown its constant ability to generate above average returns.

Since 2008, this method has been used to calculate the money flow at the sector level using a 20 days rolling window. The basic principle is that the majority of funds (large players, smart money) spread risk across stocks within the same sector and the growing use of ETFs further enforces sector investing.

The signals coming from 94 different sectors (which represent more than 900 stocks) are used to create our market direction model called the 20DMF.

General explanation of the 20D MF figure

The upper panel - of Figure 1 shown below - represents the 20DMF calculation of the 94 sectors. This is an oscillator that represents the buyers/seller equilibrium. The mid panel is the S&P 500 index. The lower panel is the Overbought/Oversold indicator measured on the 94 sectors.

In the upper panel, the pink line is the actual daily indicator averaged on the 94 sectors, which moves much faster than the actual price changes themselves. The blue line is a 20 day average and therefore smoother. Back-testing and real life trading have shown that shorting when the pink line crosses below the zero level produces excellent results.

The lower panel represents the number of MF transitions tallied on each sector. The premise is very simple: if the MF of the majority of the sectors turns down together, this signal turns down. The more sectors that move down, the sharper the signal. In other words, this signal points to "market changes". We also have drawn Overbought/Oversold lines, as arbitrary limits, to guide us. A sharp reversal down from the overbought territory -red line- indicates that the MF is turning down on many sectors, hence money moves out. A bounce off the green line is the opposite, hence shows money moving in. "Buy" signals are issued when the blue line of the lower panel reverses, but only if it is in oversold territory. This signal measures market turns, while avoiding sectors rotation.

The trading signals are:

- Short on the red dotted vertical lines
- Cover your shorts on the blue dotted vertical lines
- Go long on the green dotted vertical lines

The 20DMF works in all market conditions, providing guidance on long and short trades, but uses different settings for short and long trades:

- Go short when the 20DMF goes below zero-Cover your short when the 20DMF goes above the average line (regardless of whether this happens above or below the zero line)
- Go long when there is a reversal of the signal in the oversold region of the overbought / oversold boundaries panel, even if this signal does not reverse over the oversold line yet. A directional change of the signal is enough.

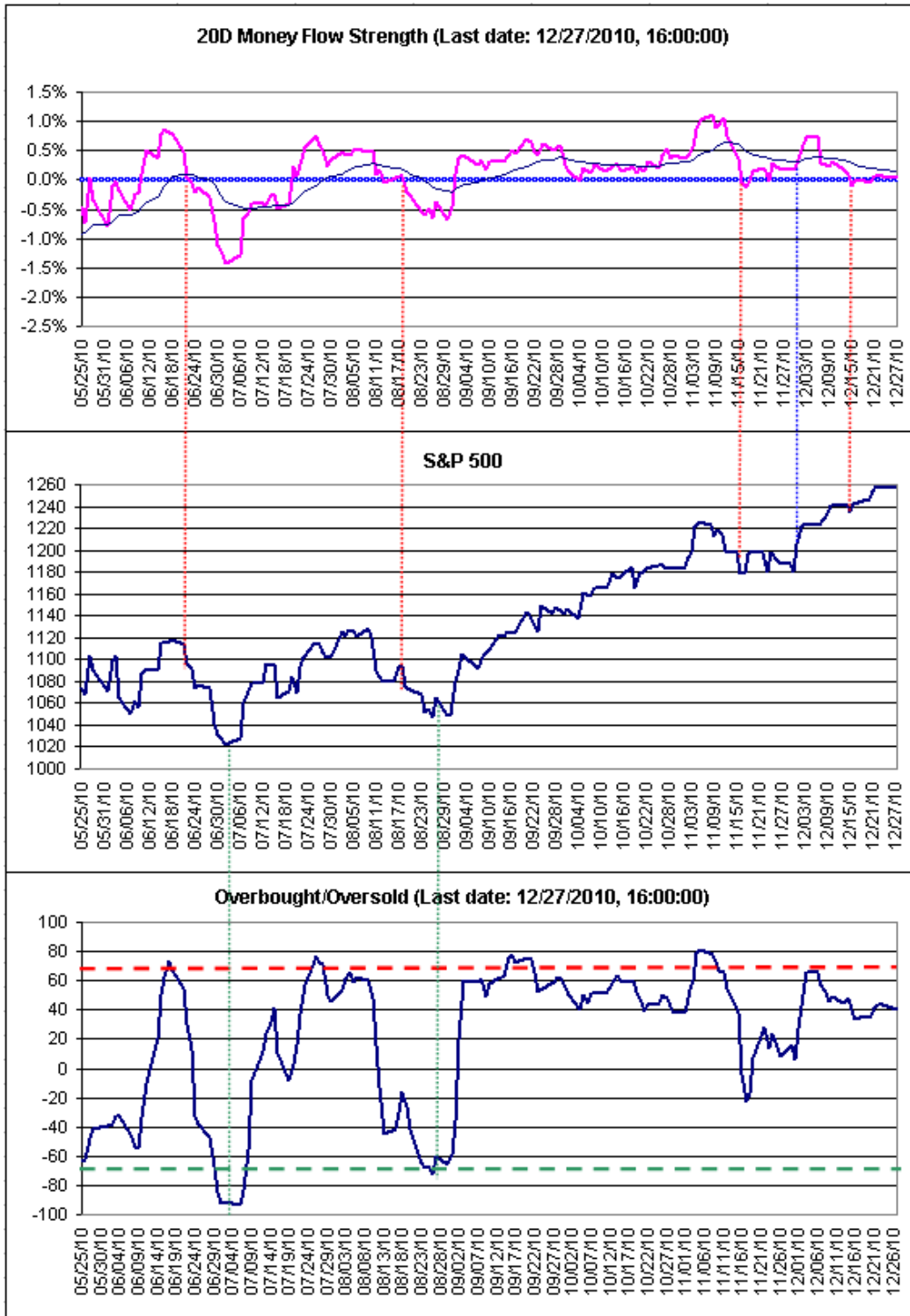


Figure 1:20DMF

	Start date	End date	Start Price	End Price	Profit/loss	Cumulated
Shorted	8/14/2007	8/17/2007	1426.54	1445.94	-1.36%	-1.36%
Bought	8/17/2007	10/16/2007	1445.94	1538.53	6.40%	4.96%
Shorted	10/16/2007	11/28/2007	1538.53	1469.02	4.52%	9.70%
Shorted	12/17/2007	1/22/2008	1445.9	1310.5	9.36%	19.97%
Bought	1/22/2008	4/30/2008	1310.5	1385.59	5.73%	26.85%
Shorted	4/30/2008	7/8/2008	1385.59	1273.7	8.08%	37.09%
Bought	7/8/2008	9/2/2008	1273.7	1277.57	0.30%	37.50%
Shorted	9/2/2008	9/16/2008	1277.57	1213.59	5.01%	44.39%
Shorted	9/23/2008	10/10/2008	1188.22	899.22	24.32%	79.51%
Bought	10/10/2008	11/12/2008	899.22	852.3	-5.22%	70.14%
Shorted	11/12/2008	11/21/2008	852.3	800.03	6.13%	80.58%
Bought	11/21/2008	1/12/2009	800.03	870.26	8.78%	96.43%
Shorted	1/12/2009	2/5/2009	870.26	845.85	2.80%	101.94%
Shorted	2/19/2009	3/6/2009	778.94	683.38	12.27%	126.71%
Bought	3/6/2009	6/16/2009	683.38	911.97	33.45%	202.55%
Shorted	6/16/2009	6/25/2009	911.97	920.26	-0.91%	199.80%
Bought	6/25/2009	10/26/2009	920.26	1066.95	15.94%	247.59%
Shorted	10/26/2009	11/3/2009	1066.95	1045.41	2.02%	254.60%
Bought	11/3/2009	12/4/2009	1045.41	1105.98	5.79%	275.15%
Shorted	12/4/2009	1/5/2010	1105.98	1136.52	-2.76%	264.79%
Shorted	1/21/2010	1/27/2010	1116.48	1097.5	1.70%	270.99%
Bought	1/27/2010	4/28/2010	1097.5	1191.36	8.55%	302.72%
Shorted	4/28/2010	5/10/2010	1191.36	1159.73	2.65%	313.41%
Bought	5/10/2010	6/24/2010	1159.73	1073.69	-7.42%	282.74%
Shorted	6/24/2010	7/7/2010	1073.69	1060.27	1.25%	287.52%
Bought	7/7/2010	8/19/2010	1060.27	1075.63	1.45%	293.14%
Shorted	8/19/2010	8/27/2010	1075.63	1064.59	1.03%	297.17%
Bought	8/27/2010	11/17/2010	1064.59	1178.59	10.71%	339.70%
Shorted	11/17/2010	12/2/2010	1178.59	1221.53	-3.64%	323.68%
Shorted	12/15/2010		1235.23		-1.81%	316.03%

Table 1: 20DMF Trades on S&P500

	Entry date	Entry price	Drawdown	Exit Date	Exit price	Days	Profit	\$ 100,000
Shorted	8/15/2007	76.39	-4.8%	8/17/2007	78.41	2	-2.65%	\$ 97,350
Bought	8/20/2007	77.75	-2.1%	9/10/2007	76.08	14	-2.15%	\$ 95,258
Bought	9/12/2007	77.64	-0.2%	9/18/2007	77.46	4	-0.24%	\$ 95,030
Bought	9/19/2007	80.42	-3.9%	10/16/2007	81.90	19	1.84%	\$ 96,782
Shorted	10/17/2007	82.80	-0.1%	10/26/2007	81.94	7	1.04%	\$ 97,792
Shorted	10/31/2007	82.56	-0.3%	11/28/2007	76.71	19	7.10%	\$ 104,732
Shorted	12/18/2007	74.67	-4.6%	12/21/2007	78.12	3	-4.61%	\$ 99,900
Shorted	12/26/2007	79.68	-0.2%	1/22/2008	66.74	17	16.24%	\$ 116,120
Bought	1/23/2008	65.30	-0.3%	2/29/2008	68.11	26	4.31%	\$ 121,121
Bought	3/3/2008	67.71	-3.7%	3/7/2008	65.21	4	-3.69%	\$ 116,647
Bought	3/10/2008	65.60	-2.3%	4/30/2008	71.40	36	8.84%	\$ 126,957
Shorted	5/1/2008	72.66	-1.7%	5/14/2008	73.92	9	-1.73%	\$ 124,759
Shorted	5/15/2008	73.65	-1.4%	5/29/2008	74.68	9	-1.40%	\$ 123,015
Shorted	5/30/2008	74.49	-2.3%	7/8/2008	68.07	26	8.62%	\$ 133,617
Bought	7/9/2008	67.25	-4.1%	8/21/2008	72.20	31	7.35%	\$ 143,438
Bought	8/25/2008	71.54	-1.2%	9/2/2008	73.85	5	3.23%	\$ 148,074
Shorted	9/3/2008	74.42	-0.4%	9/16/2008	71.00	9	4.60%	\$ 154,879
Shorted	9/25/2008	70.48	-1.1%	10/10/2008	52.45	11	25.58%	\$ 194,501
Bought	10/13/2008	52.63	-10.9%	10/23/2008	46.91	8	-10.87%	\$ 173,357
Bought	10/24/2008	44.95	-1.9%	11/12/2008	47.61	13	5.92%	\$ 183,616
Shorted	11/13/2008	48.84	-1.2%	11/21/2008	40.64	6	16.79%	\$ 214,452
Bought	11/25/2008	44.22	-6.2%	1/12/2009	47.39	31	7.17%	\$ 229,836
Shorted	1/13/2009	46.92	-1.5%	1/28/2009	46.76	10	0.33%	\$ 230,593
Shorted	1/30/2009	45.76	-0.8%	2/5/2009	45.35	4	0.90%	\$ 232,660
Shorted	2/24/2009	40.04	-3.3%	3/6/2009	35.20	8	12.09%	\$ 260,783
Bought	3/9/2009	34.73	-1.4%	5/13/2009	47.67	46	37.27%	\$ 357,973
Bought	5/14/2009	47.33	-0.6%	6/16/2009	50.50	22	6.69%	\$ 381,915
Shorted	6/17/2009	50.83	-2.1%	6/25/2009	51.05	6	-0.43%	\$ 380,257
Bought	6/29/2009	51.33	-3.6%	7/6/2009	49.47	4	-3.62%	\$ 366,478
Bought	7/7/2009	48.77	-3.1%	8/17/2009	55.26	29	13.31%	\$ 415,271
Bought	8/18/2009	55.06	-0.4%	9/1/2009	56.17	10	2.03%	\$ 423,689
Bought	9/4/2009	56.19	-0.6%	9/24/2009	59.99	13	6.75%	\$ 452,306
Bought	9/25/2009	59.86	-2.5%	10/1/2009	58.38	4	-2.47%	\$ 441,147
Bought	10/2/2009	57.73	-0.3%	10/22/2009	60.28	14	4.43%	\$ 460,678
Bought	10/26/2009	59.74	-0.9%	10/26/2009	59.52	0	-0.38%	\$ 458,949
Shorted	10/29/2009	57.33	-1.6%	11/3/2009	57.07	3	0.45%	\$ 461,031
Bought	11/4/2009	56.90	-1.1%	11/27/2009	57.15	16	0.44%	\$ 463,077
Bought	11/30/2009	57.65	-1.4%	12/4/2009	60.42	4	4.80%	\$ 485,327
Shorted	12/7/2009	60.41	-2.8%	12/21/2009	62.08	10	-2.77%	\$ 471,882
Shorted	12/22/2009	62.11	-3.3%	1/5/2010	63.76	8	-2.65%	\$ 459,378
Shorted	1/27/2010	61.20	-1.2%	1/27/2010	61.84	0	-1.05%	\$ 454,568
Bought	1/28/2010	61.48	-3.3%	2/4/2010	59.48	5	-3.26%	\$ 439,762
Bought	2/5/2010	58.45	-0.8%	3/22/2010	66.81	30	14.31%	\$ 502,691
Bought	3/23/2010	68.39	-1.5%	4/19/2010	70.62	18	3.26%	\$ 519,054
Bought	4/22/2010	71.84	-0.5%	4/28/2010	72.28	4	0.61%	\$ 522,233
Shorted	4/29/2010	72.82	-1.5%	5/10/2010	69.03	7	5.20%	\$ 549,385
Bought	5/11/2010	68.21	-3.6%	5/20/2010	65.77	7	-3.58%	\$ 529,733
Bought	5/21/2010	63.07	-1.1%	6/7/2010	62.35	10	-1.14%	\$ 523,673
Bought	6/8/2010	61.38	-1.1%	6/24/2010	63.54	12	3.52%	\$ 542,109

Shorted	6/25/2010	63.78	-2.3%	7/7/2010	61.10	7	4.20%	\$ 564,888
Bought	7/9/2010	61.98	-1.8%	7/19/2010	60.85	6	-1.83%	\$ 554,549
Bought	7/20/2010	60.45	-0.4%	8/11/2010	63.27	16	4.67%	\$ 580,448
Bought	8/12/2010	60.85	-0.8%	8/19/2010	61.09	5	0.39%	\$ 582,737
Shorted	8/25/2010	59.14	-4.5%	8/27/2010	61.65	2	-4.24%	\$ 558,005
Bought	8/30/2010	60.80	-1.8%	11/16/2010	71.38	55	17.41%	\$ 655,167
Shorted	11/18/2010	71.67	-3.6%	12/1/2010	74.26	8	-3.61%	\$ 631,510
Shorted	12/2/2010	74.47	-1.1%	12/2/2010	75.13	0	-0.89%	\$ 625,913
Shorted	12/17/2010	78.16	-1.4%	12/23/2010	78.72	4	-0.71%	\$ 621,462

Table 2: Returns for trading IWM using the 20DMF and the Multi-timeframe floor pivots method

Average annual return	60.1%
Sharpe Ratio	6.92
Average Drawdown	-2.0%
Max Drawdown	-10.9%
Days/trade	12.34
Pos/Neg trades	1.52
Average profit per trade	3.48%

Trade statistics linked to Table 2

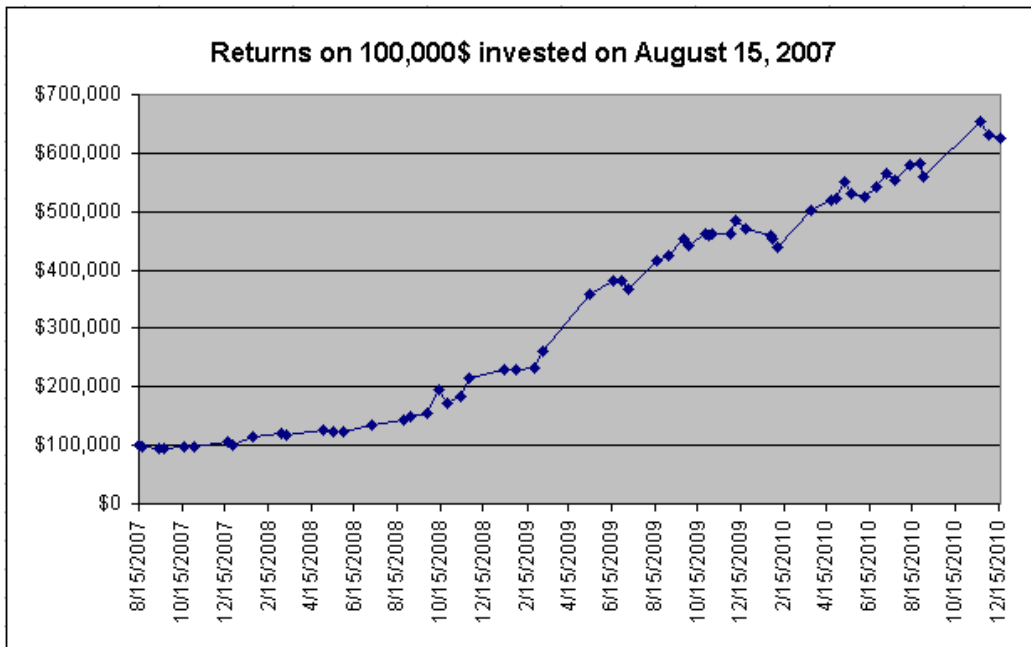


Figure 2: Equity curve of Table 2

Figure 3 shows the flow chart of the EV based trading methods. These methods allow three types of trades:

1. Stock picking (in purple)
2. Sectors specific ETF trading (in orange)
3. Market specific ETF trading (in pink)

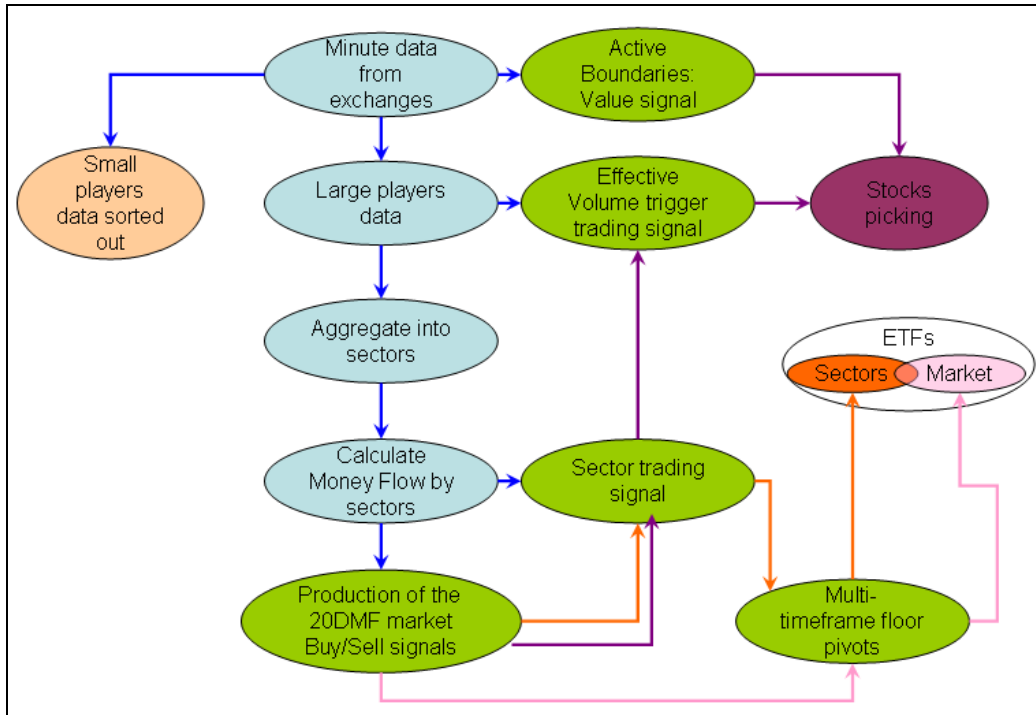


Figure 3: Flow-chart of the trading methods

The blue boxes represent the analysis method that starts with minute data on the level of stocks, aggregate it into sectors, to finally calculate the 20DMF signals.

The purple, orange and pink arrows allow following the decision process for the three types of trades:

1. Stock picking (in purple): The 20DMF shows the market direction (long/short). The sector trading signal shows the sectors that produce either a buy or a short signal. Then, the Effective Volume/Active Boundaries combination allows the selection of the best stocks in interesting sectors. See the filters section of the EV web site.
2. Sectors specific ETF trading (in orange): A multi-timeframe floor pivots analysis is added to both the 20DMF and the sectors signals.
3. Market specific ETF trading (in pink): This is the simplest and often most effective trading method, as index based ETFs (SPY, IWM, QQQQ) offer a broad diversification. Leveraged ETFs offer enhanced returns.