



Clenow Plunger as an Entry

Last month I described a kind of indicator that I, jokingly, referred to as the Clenow Plunger. Jokingly, because I always found it a bit silly that everyone tries to invent indicators so they can name them after themselves. That's why the deliberately goofy name...

It could be debated whether or not this is actually an indicator, but that's really not relevant. It is a pretty useful methodology. I'll briefly review the concept again, and then demonstrate how this Clenow Plunger can be used to construct trading models. Yes, I'll give you all the rules. Don't worry.

The point with the Plunger is to locate logical stop points for trend followers, without being in the trade. When trend followers exit, prices can often get accelerated due to the sell-off. After that, a snap-back is likely. By systematically finding these logical stop points for traditional trend followers, we can exploit their frustration. When they are forced to sell, we buy. Their loss will be our gain.

I can hear what you're thinking. Didn't this guy just write a book about traditional trend following, teaching tens of thousands of people how to use the stop loss methodology that he's now talking about exploiting?





The exact calculation of the Plunger is less important than the principle. My implementation is based on a reverse logic from the model you may remember in from my book.

First, measure the trend. Then measure the distance between the latest extreme price in the direction of that trend, and where we currently are. Now divide that distance by the ATR, to arrive at a vola normalized number.

Example



- Check overall trend direction. This is done here with a dual EMA. If the 50 day is higher than 100 day, the trend is up.
- Check the 20 day ATR value.



- Check the 20 day extreme price. That is, highest high in the past 20 days if trend is up, or 20 day lowest low if the trend is down. We want to know what the best reading was.
- Check how many ATR units we are away from that latest peak. Take the absolute difference between the current price and the 20 day extreme, and divide it by the current ATR.
- Now you've got the current pullback expressed in context.

Interpretation of the Clenow Plunger

The higher the number, the greater the pain level for trend followers who are still in. A huge amount of trend following money exits around 3. The fact that prices often turn back into the trend around that level is more ironic than Alanis Morissette.

Trading Models based on the Clenow Plunger

You've got two obvious ways to trade this indicator. You could approach it as a short term counter trend model, buying the dips and closing when prices are nearing the old highs again, or you could take a little longer time horizon and make this into a trend model. I'll show you a demo of one model of each type. The simulations below are done on all markets included in the weekly Futures Intelligence Report.

The models shown here work well in the current shape, but my intention is not to recommend that you simply take these models and trade them. My intention is for you to learn from them. Test them. Adapt them to your own preferences and make them yours.

The Clenow Counter Plunger

This model buys into dips and puts a fixed stop and target in place from the start. It aims to be out of the trade in a matter of weeks.

Summary of rules:

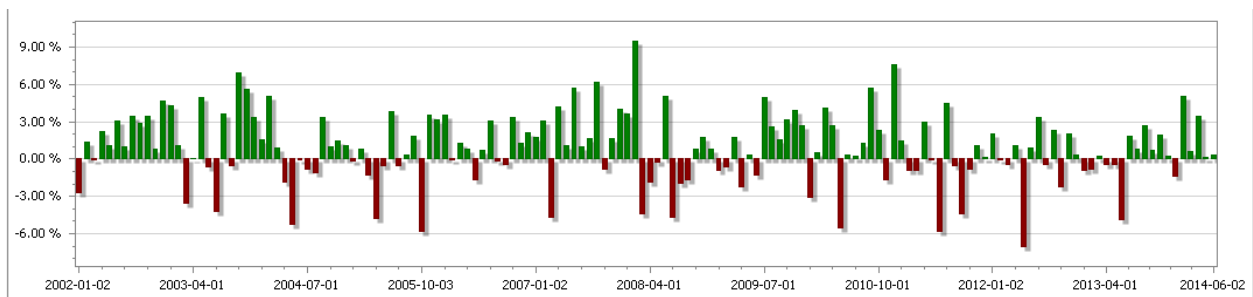
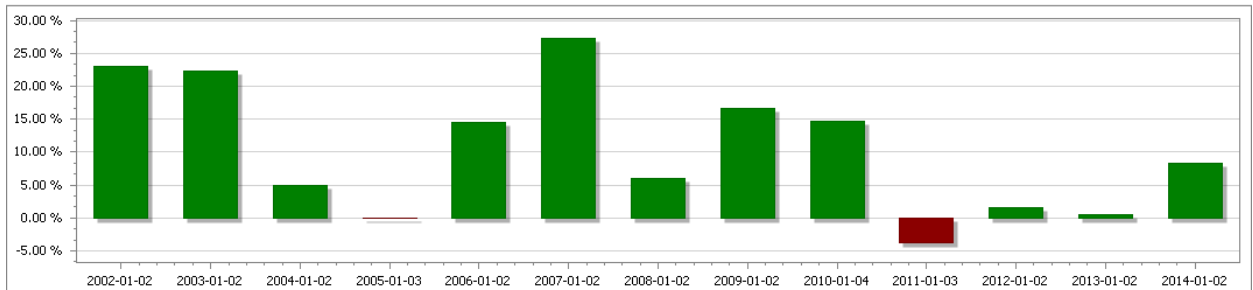
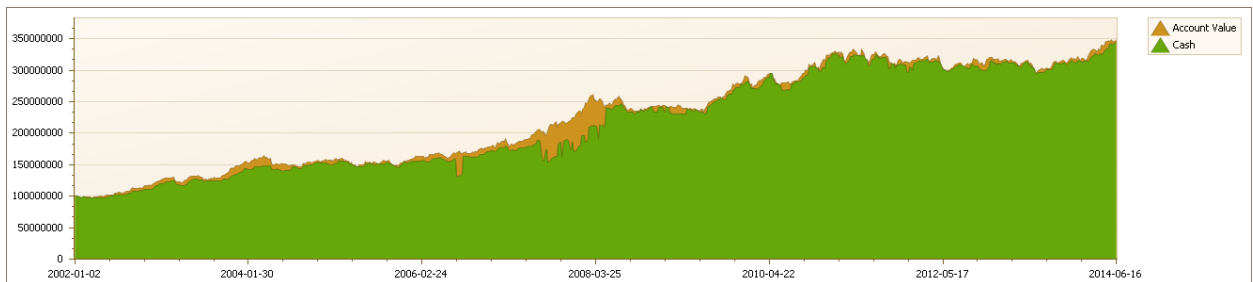
- Enter long in a positive trend, when the Plunger reaches 3.

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- Firm stop 2 times ATR down from entry.
- Firm profit target 4 times ATR up from entry.
- Exit if trend filter changes to negative.
- Position sizing using standard ATR method, risk unit 10bp.

Yes, that's how simple the logic is. The simulation results?





Capital Summary

Starting Capital	\$100,000,000.00
Ending Capital	\$347,285,291.45
Net Profit (\$)	\$247,285,291.45
Net Profit (%)	247.29 %
APR	10.50 %
Exposure	0.51 %

System Totals

Number of Trades	2926
Maximum Profit	\$30,547,128.43
Maximum Loss	(\$1,188,000.00)
Average Profit (\$)	\$84,513.09
Average Profit (%)	2,735,809.60 %
Average Bars Held	20.60
Maximum Exposure	\$27,527,518.56
Max Exposure (%)	17.37 %
Max Exposure Date	2006-08-03 00:00
Max Exposure (%) Date	2006-07-26 00:00
Max Drawdown (\$)	\$39,073,948.75
Max Drawdown (%)	11.77 %
Max Drawdown Date	2013-06-26 00:00
Max Drawdown (%) Date	2009-07-08 00:00

Winning Totals

Winning Trades	1160
Winning %	39.64 %
Gross Profit	\$992,625,161.93
Average Profit (\$)	\$855,711.35
Average Profit (%)	38,253,770.79 %
Average Bars Held	27.93
Consecutive Winners	15

Losing Totals

Losing Trades	1762
Losing %	60.22 %
Gross Loss	(\$745,339,870.49)
Average Loss (\$)	(\$423,007.87)
Average Loss (%)	-20,640,973.46 %
Average Bars Held	15.82
Consecutive Losers	29

The most interesting feature of a model like this is the low correlation to classic trend following. That makes it a great portfolio component, to be traded at the same time as a trend model. They will see gains and losses at different times.



Counter Plunger Trade Examples





The Clenow Trend Plunger

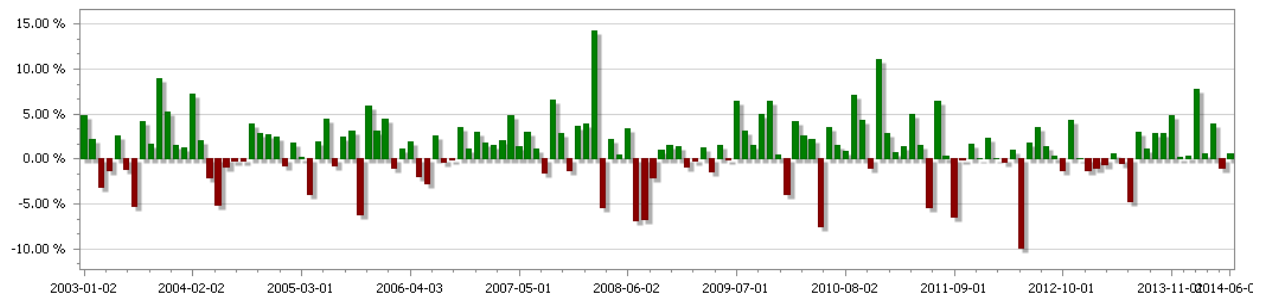
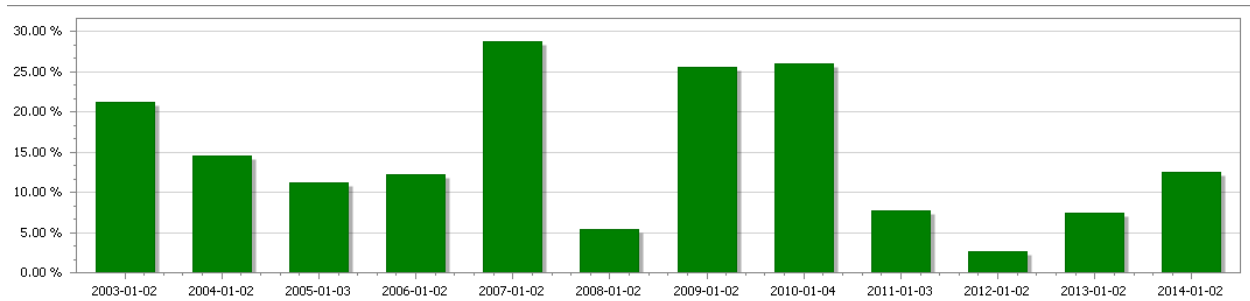
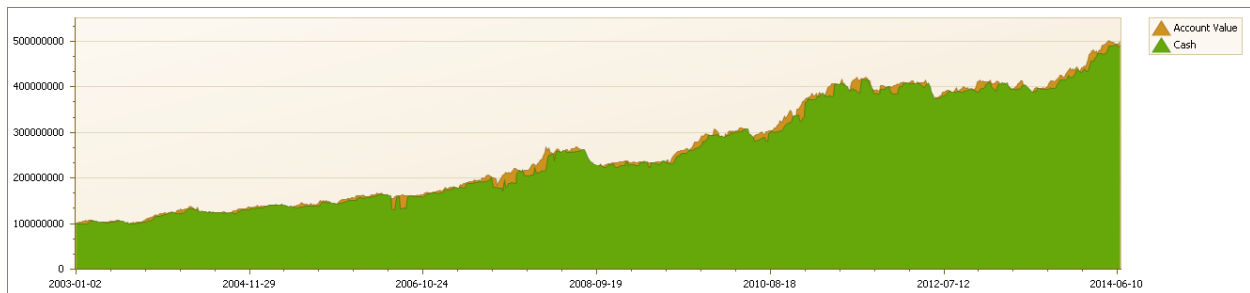
We seem to have a good entry timing with the previous model. What if we simply kept the position a bit longer? Let's do a simple test. One that on the surface looks so dumb that few would try it. What if we removed the stop loss and the profit target all together, and replaced it with a fixed time limit?

Here are the new trading rules:

- Enter long in an uptrend when the Plunger reaches 3.
- Use the same position size of 10 bp.
- Exit after 30 trading days.
- Failsafe exit: Close position if trend filter in the Plunger turns negative

A fixed time stop with no target or stop? Nah, that's just too goofy. Or is it now...

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Capital Summary

Starting Capital	\$100,000,000.00
Ending Capital	\$498,393,545.36
Net Profit (\$)	\$398,393,545.36
Net Profit (%)	398.39 %
APR	15.01 %
Exposure	0.71 %

System Totals

Number of Trades	2605
Maximum Profit	\$6,448,742.53
Maximum Loss	(\$5,703,480.96)
Average Profit (\$)	\$152,934.18
Average Profit (%)	5,193,919.63 %
Average Bars Held	27.50
Maximum Exposure	\$27,086,077.98
Max Exposure (%)	17.18 %
Max Exposure Date	2006-06-22 00:00
Max Exposure (%) Date	2006-06-29 00:00
Max Drawdown (\$)	\$52,636,114.21
Max Drawdown (%)	16.73 %
Max Drawdown Date	2012-06-04 00:00
Max Drawdown (%) Date	2008-10-15 00:00



Trend Plunger Trade Examples





Systems Source Code

These two trading models shown above are outperforming most standard trend models. They are also both making new highs at the moment, which can't be claimed by many in the business. Not so bad for such simplistic models, huh?

Oh, you want the source code? That's no problem. Just go to my website, fill in your credit card details and pay me \$5,000.

Just kidding.

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The source code here is in C#, written for RightEdge. If you use other software, you should still be able to see the logic here and translate to your platform of choice.

Source code for Clenow Counter Plunger

```
public class MySymbolScript : MySymbolScriptBase
{
    EMA _emaShort;
    EMA _emaLong;

    Highest _top;
    Lowest _bottom;

    AverageTrueRange _atr;

    UserSeries _unitsOff;

    double _riskFactor;
    double _pointValue;
    double _atrBase;

    double _longEntry;
    double _shortEntry;

    double _longStop;
    double _longTarget;

    UserSeries _stopLine;
    UserSeries _targetLine;

    public override void Startup()
    {
        _longEntry = (double)SystemData.SystemParameters["longEntry"];
        _riskFactor = (double)SystemData.SystemParameters["riskFactor"];

        _longTarget = (double)SystemData.SystemParameters["longTarget"];
        _longStop = (double)SystemData.SystemParameters["longStop"];

        _emaShort = new EMA(50, Close);
        _emaLong = new EMA(100, Close);

        _emaShort.ChartSettings.ShowInChart = true;
        _emaLong.ChartSettings.ShowInChart = true;

        _top = new Highest(20, High);
```

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```
_bottom = new Lowest(20, Low);

_top.ChartSettings.ShowInChart = false;
_bottom.ChartSettings.ShowInChart = false;

_atr = new AverageTrueRange(20);
_atr.ChartSettings.ShowInChart = false;

_unitsOff = new UserSeries();
_unitsOff.ChartSettings.ChartPaneName = "Units Off";
_unitsOff.ChartSettings.ShowInChart = true;
_unitsOff.ChartSettings.DisplayName = "Clenow Plunger";

_pointValue = Math.Max(Symbol.SymbolInformation.ContractSize, 1);

_stopLine = new UserSeries();
_stopLine.ChartSettings.ShowInChart = false;
_stopLine.ChartSettings.Color = Color.Red;

_targetLine = new UserSeries();
_targetLine.ChartSettings.ShowInChart = false;
_targetLine.ChartSettings.Color = Color.Green;

}
int flatBars = 0;
public override void NewBar()
{
    _stopLine.Current = double.NaN;
    _targetLine.Current = double.NaN;
    if (SystemData.InLeadBars) return;

    if (trend() == 1)
        _unitsOff.Current = (_top.Current - Close.Current) /
_atr.Current;
    else
        _unitsOff.Current = (Close.Current - _bottom.Current) /
_atr.Current;

    IList<Position> pos =
SystemData.PositionManager.GetOpenPositions(Symbol);
    if (pos.Count == 0)
    {
        flatBars++;
        _stopLine.Current = double.NaN;
        _targetLine.Current = double.NaN;
    }
}
```



```

        if (trend() == 1) //Positive Trend
        {
            if ( (_unitsOff.Current > _longEntry) &&
                (_unitsOff.Current < (_longEntry + 1)) && (flatBars > 5) )
            {
                long numberOfContracts =
                (long) (Math.Max(1, SystemData.AccountValue * _riskFactor /
                    (_atr.Current * _pointValue *

                        SystemData.AccountInfo.GetConversionRate(Symbol.CurrencyType, SystemData
                            .AccountCurrency, QuoteType.Last) )));

                TradingSystem.OpenPosition(Symbol, PositionType.Long, OrderType.MarketOnO
                    pen, 0, numberOfContracts);

                _atrBase = _atr.Current;
            }
        }
        else //Negative Trend
        {
            // This iteration only trades long side.
        }
    }
    else
    {
        flatBars = 0;
        double stopLoss = stop(pos[0]);
        double targetPrice = target(pos[0]);
        _stopLine.Current = stopLoss;
        _targetLine.Current = targetPrice;

        if (pos[0].Type == PositionType.Long)
        {

            SystemData.GetPricePane(Symbol).SetBarColor(Bars.Current, Bars.Current, C
                olor.Green);

            if (trend() == -1) pos[0].CloseaAtMarket("Trend
                Switch");

        }
        else
        {
            // No short positions in this iteration.
        }
        pos[0].SetStopLossPrice(stopLoss);
        pos[0].SetProfitTargetPrice(targetPrice);
    }
}

```



```
    }  
}  
  
private double stop(Position p)  
{  
    if(p.Type == PositionType.Long)  
    {  
        double distance = _atrBase * _longStop;  
        double entryPrice = p.EntryPrice.SymbolPrice;  
        return entryPrice - distance;  
    }  
    else  
    {  
        double distance = _atrBase * 2;  
        double entryPrice = p.EntryPrice.SymbolPrice;  
        return entryPrice + distance;  
    }  
}  
  
private double target(Position p)  
{  
    if(p.Type == PositionType.Long)  
    {  
        double distance = _atrBase * _longTarget;  
        double entryPrice = p.EntryPrice.SymbolPrice;  
        return entryPrice + distance;  
    }  
    else  
    {  
        double distance = _atrBase * 3;  
        double entryPrice = p.EntryPrice.SymbolPrice;  
        return entryPrice - distance;  
    }  
}  
  
private int trend()  
{  
    if (_emaShort.Current > _emaLong.Current)  
        return 1;  
    else  
        return -1;  
}  
  
}
```



Source Code for the Trend Plunger

```
public class MySymbolScript : MySymbolScriptBase
{
    UserSeries _plunger;

    EMA _emaShort;
    EMA _emaLong;

    Highest _top;
    Lowest _bottom;

    AverageTrueRange _atr;

    double _riskFactor;
    int _daysToHold;
    double _pointValue;
    int _dipAmount;

    public override void Startup()
    {
        _riskFactor = (double)SystemData.SystemParameters["RiskFactor"];
        _daysToHold = (int)SystemData.SystemParameters["ExitDays"];
        _dipAmount = (int)SystemData.SystemParameters["DipAmount"];

        _plunger = new UserSeries();
        _plunger.ChartSettings.ShowInChart = true;
        _plunger.ChartSettings.ChartPaneName = "PlungerPane";
        _plunger.ChartSettings.DisplayName = "Clenow Plunger";

        _emaShort = new EMA(50, Close);
        _emaLong = new EMA(100, Close);

        _emaShort.ChartSettings.ShowInChart = true;
        _emaLong.ChartSettings.ShowInChart = true;

        _top = new Highest(20, High);
        _bottom = new Lowest(20, Low);

        _top.ChartSettings.ShowInChart = false;
        _bottom.ChartSettings.ShowInChart = false;

        _atr = new AverageTrueRange(20);
        _atr.ChartSettings.ShowInChart = false;
    }
}
```




```
        _pointValue = Math.Max(Symbol.SymbolInformation.ContractSize,1);
    }

    int validBars = 0;
    public override void NewBar()
    {
        validBars++;
        if (validBars < 100) return;

        if (trend() ==1)
            _plunger.Current = (_top.Current- Close.Current) /
_atr.Current;
        else
            _plunger.Current = (Close.Current - _bottom.Current) /
_atr.Current;

        IList<Position> pos =
SystemData.PositionManager.GetOpenPositions(Symbol);
        if(pos.Count==0)
        {
            if ((_plunger.Current > _dipAmount) && (trend()==1) )
            {
                long numberOfContracts =
(long) (Math.Max(1,SystemData.AccountValue * _riskFactor /
(_atr.Current * _pointValue *

SystemData.AccountInfo.GetConversionRate(Symbol.CurrencyType, SystemData
.AccountCurrency, QuoteType.Last) ));

                TradingSystem.OpenPosition(Symbol, PositionType.Long, OrderType.MarketOnO
pen, 0, numberOfContracts).Description = _plunger.Current.ToString();

            }
        }
        else
        {

            SystemData.GetPricePane(Symbol).SetBarColor(Bars.Current, Bars.Current, C
olor.Green);

            if (trend() == -1 )
            {
                pos[0].CloseAtMarket("Trend Shift");
                return;
            }
        }
    }
}
```



```
        if (pos[0].BarsHeld > _daysToHold)
pos[0].CloseAtMarket("Exiting");
    }

    private int trend()
    {
        if (_emaShort.Current > _emaLong.Current)
            return 1;
        else
            return -1;
    }
}
```