Edward Shek

The War Room

Quants and Screening

Session 3

March 22nd

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www.itpm.com

Seminars, Online Education, Trader Mentoring

Trade Idea Parameters

Quantitative Analysis	Stock and Sector data
Qualitative Analysis	Understanding the company
KPI identification	Understanding the metrics that drive revenue and earnings
Potential catalysts	Events that will drive alpha ….preferably in between earnings
Time horizon	Trade shortest time frame that captures the catalyst(s)
Price Target	Driven through the Quants and Average True Range (vol analysis)
Options Structure	

Slide Show
Resume Slide Show

Quantitative Analysis - Long

Ticker ABC	2018	2019	2020	2021	2022
Market Cap	2,010	2,320	4,150	5,400	
EPS	2.02	2.52	2.73	3.74	5.07
EG G %	110%	25%	8%	37%	35%
PE	24	52	56	42	46
PEG G	0.11	-1	0.92	0.85	1.68
Sales	1,080	1,216	1,177	1,345	1,528
SG %	25%	12%	-3%	14%	14%

Quantitative Analysis (Sector Comps)

Ticker	PE F1	EG F1 %	EG F2 %	Market Cap
U	29	54%	34%	2,603
V	23	24%	14%	2,033
W	33	13%	12%	4,331
X	28	31%	13%	40,234
Y	91	3%	24%	4,503
Z	25	50%	20%	5,350
AVERAGES	**38**	**29%**	**20%**	**9,842**
ABC	**42**	**37%**	**35%**	**5,400**

Quantitative Screening

With a Universe of 5000 US stocks where do we start ?

You will all naturally have favourite stocks, stocks that you feel you know better than others and may have even made money from in the past.
Media stock awareness.

Need to find those lesser known stocks in our market cap Sweet Spot of $3 - $10bn.

The quality of your screening process will save you much time and point you towards the right places that "Express your View"

Understanding the screen is even more important.

Quantitative Screening Bottom Up

Basic Screens (all from the ITPM US Stock screener)

Sort data by highest/lowest F1/F2 earnings growth
Cross check v PEG ratio
Cross check with changes in estimates

Investigate a Sector /Sub-sector.
Select all stocks and rank the stocks on a quantitative basis.

Screening tools can become quite complex with scores of parameters but start with the basics.

Quantitative Screening Bottom Up

	S&P 500 EARNINGS	% change	2019-2021 % change
2019	$163		
2020	$122	-25%	
2021	$199	63%	20%
2022	$221	11%	

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Quantitative Screening Top Down

Your View

Expectation for mild increase in yields supportive of cyclical recovery, sector rotation out of growth potentially and into value

Looking for

Value Long

Screen

Stocks with PE< 15 with F1/F2 EPS growth > 25%

Effectively screening for reasonably priced growth

Quantitative Screening   Top Down

Your View

Expectation for rapid increase in yields (above the market consensus) leading to a correction in growth stocks.

Looking for

Short in growth   for example SAAS

Screen

A   Stocks with Sales Multiple > 20   EPS growth > 50%

or

B   Stocks with Sales Multiple < 10 EPS growth < 20%

Shorting – An Introduction

ITPM War Room – March 2021

Jason Mcdonald

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JASON MCDONALD - CV

1992-2000

- Graduated from Oxford University June 1992, BA (Hons) PPE
- October 1992 joined Barclays de Zoete Wedd as graduate trainee

1993-2000

- Event driven/special situations proprietary trading, global mandate
- Long/short equities proprietary trading, UK and Europe
- Senior trader CSFB internal hedge fund – Modal Capital, $2bn portfolio

2000-2003

- Head hunted to set up volatility and event-driven hedge fund at MAKO Global Derivatives, London

2004-2005

- Head hunted by Commerzbank AG, Senior trader, Special Situations proprietary trading desk. Global multi asset class, multi strategy proprietary portfolio, EUR 2bn

2006

- Headhunted by Lehman Brothers. Portfolio Manager long/short equity portfolio within Lehman Equity Strategies Proprietary Trading unit - $300mln book

2007-2008

- Head hunted by Toronto Dominion Bank to run global long/short equity proprietary trading team $500mln book

2009-present

- Institute of Trading & Portfolio Management Capital Allocation, Senior Trading Mentor (80+ students) 850+ remote traders globally. 40 Corporate Trading Accounts. Up to $10m available for qualified Institute traders to trade on POA
- Private Equity angel investment, residential & commercial real estate investment

INTRODUCTION:

Why do we short?

- To improve returns by picking shorts which make an absolute profit
- Hedging – think about what happened in February/March 2020, November/December 2018
- To decrease the volatility of total returns – risk adjusted returns, Sharpe ratio


SPX C 3701.17 +6.55 3674.31/3728.83
On 16 Dec d O 3696.25 H 3711.27 L 3688.57 Prev 3701.17
SPX Index 95) Compare 96) Actions 97) Edit Candle Chart
01/01/2018 - 12/31/2018 Last Px Local CCY Mov Avgs Key Events
1D 3D 1M 6M YTD 1Y 5Y Max Daily Table Edit Chart
Track Annotate News Zoom
Last Price 2506.85
High on 09/21/18 2940.91
Average 2746.21
Low on 12/26/18 2346.58
2900
2800
2700
2600
2506.85
2400
2300
Volume 0.627B
2B
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2018

SPX C 3701.17 +6.55 3674.31/3728.83
On 16 Dec d O 3696.25 H 3711.27 L 3688.57 Prev 3701.17
SPX Index
95) Compare
96) Actions
97) Edit
Candle Chart
01/01/2020 - 12/17/2020
Last Px
Local CCY
Mov Avgs
Key Events
1D 3D 1M 6M YTD 1Y 5Y Max Daily
Table
Edit Chart
Track Annotate News Zoom
Last Price 3701.17
High on 12/09/20 3712.39
Average 3197.37
Low on 03/23/20 2191.86
Volume 0.626B
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2020

WHY IS IT HARD TO FIND SHORTS?

- Most of the time economies are growing & therefore we are in an equity bull market

- A bias against selling exists because of fear of short-term RELATIVE underperformance by long only pension funds. This allows pricing disparities to remain

- Brokers/Investment Banks add to this because most broker recommendations are BUYS or HOLDS (political/business reasons)

- Research analyst estimates tend to be over-optimistic. This provides for greater potential of negative surprises

WHY WE NEED TO BE CAREFUL

Example: Equity portfolio with 10 positions (5 long and 5 short)

- $50,000 on margin levered 3X = $150,000 gross portfolio
- 1 short position of $15,000 receives a takeover offer at 100% premium to the prevailing market price

Therefore, the portfolio loses $15,000 on that short position

- On $50,000 margin = 30% loss
- That's a considerable hole in your capital!

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SHORT TRADE QUALITATIVE CRITERIA

- Identify flaws in the business model e.g. obsolete technology (the Blackberry), changing demographics (ageing populations), structural changes (shopping malls v e-commerce)

- Negative earnings surprises affect stock prices to a greater degree than positive earnings surprises. This effect persists over time. There is no such thing as one bad quarter

- When very high earnings expectations give way to earnings disappointment, the higher the market's expectation of earnings growth the deeper the disappointment if those expectations are not met

SHORT TRADE QUANTITATIVE CRITERIA

- Large companies (excluding unicorns) have a higher probability of getting smaller than small companies do - concentrate on the large/mega-cap space i.e. companies with market caps. > $20bn

- Eliminate gap risk - small/mid-cap stocks that are in trouble/loss making have a higher chance of takeover than large caps. If you short a mid-cap which is subject to a takeover approach at X% premium your stop loss is irrelevant. The stock price will "gap up"

- Ideally, P/E ratings for this year and next will be at a discount to the relevant peer group. This implies that the market is "on your side." The market is recognising the inferior nature of that particular company and is therefore not prepared to assign a premium P/E rating to the stock

SHORT TRADE QUANTITATIVE CRITERIA

- Ideally, earnings growth F1/F2 sequentially negative i.e. falling earnings/loss-making F1/F2, and, getting worse in the second period (difficult in an expanding GDP scenario)

- Stay away from "hero trades"…"its down 95%, I think its going to zero because <insert reason>"

- Anything merely as bad as the average for an underperforming sector is not worth shorting. Simply short the sector i.e. the industry ETF

- Monitor short interest closely. (www.shortsqueeze.com) Part of the technical analysis carried out on shorts. A high number of days to cover/high % of free float shorted could indicate an impending short squeeze (see GME)

Balance Sheet versus Income Statement:

- Interest Coverage Ratio (income statement)
- Funds Flow Coverage Ratio (income statement)
- Current Ratio (balance sheet)
- Cash Ratio (balance sheet)
- Debt to Equity Ratio (balance sheet)
- Debt Service Coverage Ratio (hybrid)

Income Statement Metrics

Interest Coverage ratio:

- EBIT / Interest

Funds Flow Coverage ratio:

- EBITDA / (Interest + Debt repayment/(1-tax rate) + Preferred dividends/(1-tax rate))

Balance Sheet Statement Metrics:

Current ratio:

- Current assets / Current liabilities

Cash ratio:

- (Cash + Marketable Securities) / Current liabilities

Debt to equity ratio:

- (Total debt and debt equivalents) / Equity

Hybrid: Debt Service Coverage ratio:

- EBITDA / (Interest + Principal)

OR

- (EBITDA – CAPEX) / (Interest + Principal)

- Timing: even more important when shorting. A good solution is to wait until a stock has "cracked" before initiating the short position. Wait for the first drop when earnings and price MOMENTUM have slowed. Alternatively, put on starter positions and add size on a break. Be disciplined when scaling into positions – requires more capital

- Taking a full size short before the price breaks can result in a squeeze - being wrong on a technical short-term basis before the fundamentals deteriorate

GENERAL CONCLUSIONS:

- Good shorts are difficult to find in positive GDP growth environments - the worst stocks in a sector can still appreciate if there is earnings growth. They may underperform BUT their share price will still rise ("a rising tide lifts all boats")

- Shorting needs to be selective and positions scaled into. Determining the "true value" of stocks is difficult in an environment of ultra-low borrowing costs and huge government and central bank stimulus that keeps equities supported even in a recession

DUK – 1 Year Chart

SHORT TRADE EXAMPLE: DUKE ENERGY - DUK

- MACRO TOP DOWN: yields in the US Treasury mkt are on their way up e.g. 10 yr. US Treasuries yielding 1.69% versus circa 1% Dec 2020 (52 week low 0.5%)

- What suffers in a rising rate environment?

- Long duration assets, especially ones with no pricing power. Longer duration the better (from a short perspective)

- Tech has suffered as yields have risen. By that we really mean 'high PEs'

- Why?

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SHORT TRADE EXAMPLE: DUKE ENERGY - DUK

- It's because of something called 'terminal value'

- As market interest rates increase analysts must increase the discount rates on future cash flows that they discount back to the present over multi year time horizons

- That increase in the discount rate decreases the terminal values of the assets in question and therefore the present value of the cash flows accruing

- Why would this affect high PE stocks more?

SHORT TRADE EXAMPLE: DUKE ENERGY - DUK

- In many cases high PE company earnings are a long way in the future

- The further out they are and the higher the discount rate the lower the present value of a company's cash flows

- However, many tech companies have pricing power…

- I'm looking for a sector that becomes less attractive as rates rise that also lacks pricing power i.e. they can't pass on higher costs to their consumers

- Utilities fit that bill!

SHORT TRADE EXAMPLE: DUKE ENERGY - DUK

- Much of what a utility does falls into the category of 'regulated activities' meaning that industry regulators decide the maximum they can charge their customers

- MICRO BOTTOM UP: Why DUK?

- Duke Energy, mkt cap $71bn

- PE F1 17.8x PE F2 16.9x EG1 1.75% EG2 5% Dividend yield 4.2%

- Sector PE F1 18.8x PE F2 17.7x EG1 4.6% EG2 6% Dividend yield 3.5%

SHORT TRADE EXAMPLE: DUKE ENERGY - DUK

- Electric Utilities and Infrastructure segment is regulated electric utilities in the Carolinas, Florida and the Midwest. It also includes electric transmission infrastructure investments. 2020: 91% of total revenues

- Gas Utilities and Infrastructure segment (Duke Energy's natural gas local distribution companies in Ohio and Kentucky, and their natural gas storage and midstream pipeline investments. 2020: 7% of total revenues

- Commercial Renewables segment is primarily non-regulated utility scale wind and solar generation assets located throughout the United States. 2020: 2% of total revenues

SHORT TRADE EXAMPLE: DUKE ENERGY - DUK

- QUALITATIVE FACTORS – Low risk market hedge in rising rate environment
- Already credit downgrades (October 2020 – Moody's stable to negative outlook)
- Current ratio 0.53, <1 = potentially concerning
- Interest coverage ratio as of Dec 31, 2020 = 1.4, decreased sequentially from 1.9
- Cash flow from operations does not cover investing activities

SHORT TRADE EXAMPLE: DUKE ENERGY - DUK

- QUALITATIVE FACTORS – Cash flow negative. DUK effectively borrows to pay their dividend

- ROIC = 2.6% (appallingly low) Does not cover their (also very low!) cost of capital (WACC = 3.3%)

- Therefore, currently DUK is a value destructive enterprise

- POTENTIAL CATALYSTS: Further increase US Treasury yields, dividend reduction?

- **CONCLUSION**: Low risk short as a portfolio hedge with potential for absolute return trade