

SSeries StyleName Definition

- Factor Definitions used in SSeries Model
- Research by Eunjae Jang

Accruals

(Net_Operating_Cashflow - Net_Income_befExtraordinaryItems) / Total_Asset

$$Accruals_{fq} = \frac{CF_{fq} - NI_{fq}}{TA_{fq}}$$

$$Accruals_{fy} = \frac{CF_{fy} - NI_{fy}}{TA_{fy}}$$

Accruals.S

(Net_Operating_Cashflow - Net_Income_befExtraordinaryItems) / Revenue

$$Accruals.S_{fq} = \frac{CF_{fq} - NI_{fq}}{RV_{fq}}$$

$$Accruals.S_{fy} = \frac{CF_{fy} - NI_{fy}}{RV_{fy}}$$

ARDays (Accounts Receivables Days)

-365 * (Accounts Receivables / Revenue)

$$ARDays_{fq} = -365 \frac{AR_{fq}}{RV_{fq}}$$

$$ARDays_{fy} = -365 \frac{AR_{fy}}{RV_{fy}}$$

CACqR (Capital Aquisition Ratio)

(Net_Operating_Cashflow + Cash_Dividend) / Capex

$$CACqR_{fq} = \frac{CF_{fq} + DVD_{fq}}{Capex_{fq}}$$

$$CACqR_{fy} = \frac{CF_{fy} + DVD_{fy}}{Capex_{fy}}$$

EarnRev (Earnings Revision 3M)

$$EstEPS_{t,fy1} - EstEPS_{t-3M,fy1} / \text{abs}(EstEPS_{t-3M,fy1})$$

$$EarnRev_t = \frac{(EstEPS_{t,fy1} - EstEPS_{t-3M,fy1})}{|EstEPS_{t-3M,fy1}|}$$

GARP Related:

ROE_l2yr

Last 2year Average Historical ROE (qtr & year)

Payout_l2yr

Last 2year Average Historical Payout (qtr & year)

EPSg_l2yr

Last 2year Average of EPS Growth (qtr & year)

SustG (Sustainable Growth)

Normalized_ROE * (1 - Normalized_Payout)

where, $ROE_{norm} = (ROE_{l2yr} + ROE_{f2yr})/2$

and, $Payout_{norm} = (Payout_{l2yr} + Payout_{f2yr})/2$

$SustG = ROE_{norm} \times (1 - Payout_{norm})$

PE_f12m (Forward PE 12M)

Forward PE 12M (weighted average of FY1 & FY2 EPS)

$$PE_{f12m} = \frac{MktCap}{EPS_{fy1}}$$

DY_f12m (Forward DividendYield 12M)

Forward DividendYield 12M (weighted average of FY1 & FY2 DPS)

$$DY_{f12m} = \frac{DVD_{fy1}}{MktCap}$$

EPSg_f2yr (Exp. Future 2yr EPS growth Average)

IBES EPS fy1/fy0, fy2/fy1 average

$$EPSg_{f2yr} = \left(\frac{EPS_{fy2} - EPS_{fy1}}{EPS_{fy1}} + \frac{EPS_{fy1} - EPS_{fy0}}{EPS_{fy0}} \right) / 2$$

ROEavg_f2yr (Exp. Future 2yr ROE Average)

IBES ROE fy0, fy1, fy2 average

$$ROE_{f2yr} = (ROE_{fy2} + ROE_{fy1} + ROE_{fy0}) / 3$$

EGP

1 / PEG = EPSg_f2yr / PE_f12m

$$EGP = EGPg_{f2yr} / PE_{f12m}$$

SGP

Sustainable_Growth / PE_f12m

$$SGP = SustG / PE_{f12m}$$

EVEbitda (EV2EBITDA)

EnterpriseValue / (Operating_Income + Depreciation&Amortization)

$$EVEbitda_{fq} = \frac{EV_{fq}}{OI_{fq} + DA_{fq}}$$

$$EVEbitda_{fy} = \frac{EV_{fy}}{OI_{fy} + DA_{fy}}$$

CFO2EV

Net_Operating_Cashflow / EnterpriseValue

$$CFO2EV_{fq} = \frac{CF_{fq}}{EV_{fq}}$$

$$CFO2EV_{fy} = \frac{CF_{fy}}{EV_{fy}}$$

FCF2EV

Free-CashFlow / Enterprise Value

$$FCF2EV_{fq} = \frac{CF_{fq} - Capex_{fq}}{EV_{fq}}$$

$$FCF2EV_{fy} = \frac{CF_{fy} - Capex_{fy}}{EV_{fy}}$$

CFROIC

Net_Operating_Cashflow / (Long-term_Debt + Total_Equity + Minority_Interest)

$$CFROIC_{fq} = \frac{CF_{fq}}{LtB_{fq} + Eq_{fq} + MI_{fq}}$$

$$CFROIC_{fy} = \frac{CF_{fy}}{LtB_{fy} + Eq_{fy} + MI_{fy}}$$

FCFROIC

(Net_Operating_Cashflow - Capex) / (Long-term_Debt + Total_Equity + Minority_Interest)

$$FCFROIC_{fq} = \frac{CF_{fq} - Capex_{fq}}{LtB_{fq} + Eq_{fq} + MI_{fq}}$$

$$FCFROIC_{fy} = \frac{CF_{fy} - Capex_{fy}}{LtB_{fy} + Eq_{fy} + MI_{fy}}$$

ROIC

(Operating_Income * Effective_Tax_Rate) / (Total_Asset - (Short-Term_Cash + PPE + InvestAssociatedCompanies))

$$ROIC_{fq} = \frac{OI_{fq} \times Tax_{fq}}{TA_{fq} - (Csh_{fq} + PPE_{fq} + AC_{fq})}$$

$$ROIC_{fy} = \frac{OI_{fy} \times Tax_{fy}}{TA_{fy} - (Csh_{fy} + PPE_{fy} + AC_{fy})}$$

5Yr Relative Valuation

5YRel_CFO2EV

Z-Score of Current to Past 5yr CFO2EV

$$5YRel_CFO2EV_{fq} = \frac{CFO2EV_{fq} - AVG_{i=t-20Q}^t(CFO2EV_{fq})}{STD_{i=t-20Q}^t(CFO2EV_{fq})}$$

$$5YRel_CFO2EV_{fy} = \frac{CFO2EV_{fy} - AVG_{i=t-5Y}^t(CFO2EV_{fy})}{STD_{i=t-5Y}^t(CFO2EV_{fy})}$$

5YRel_CFO2P

Z-Score of Current to Past 5yr CFO2P

$$5YRel_CFO2P_{fq} = \frac{CFO2P_{fq} - AVG_{i=t-20Q}^t(CFO2P_{fq})}{STD_{i=t-20Q}^t(CFO2P_{fq})}$$

$$5YRel_CFO2P_{fy} = \frac{CFO2P_{fy} - AVG_{i=t-5Y}^t(CFO2P_{fy})}{STD_{i=t-5Y}^t(CFO2P_{fy})}$$

5YRel_EBITDA2P

Z-Score of Current to Past 5yr EBITDA2P

$$5YRel_EBITDA2P_{fq} = \frac{EBITDA2P_{fq} - AVG_{i=t-20Q}^t(EBITDA2P_{fq})}{STD_{i=t-20Q}^t(EBITDA2P_{fq})}$$

$$5YRel_EBITDA2P_{fy} = \frac{EBITDA2P_{fy} - AVG_{i=t-5Y}^t(EBITDA2P_{fy})}{STD_{i=t-5Y}^t(EBITDA2P_{fy})}$$

GPOA

Gross_Income / Total_Asset

$$GPOA_{fq} = \frac{GI_{fq}}{TA_{fq}}$$

$$GPOA_{fy} = \frac{GI_{fy}}{TA_{fy}}$$

IntC (Interest Coverage Ratio)

Operating_Income / Interest_Expense

$$IntC_{fq} = \frac{OI_{fq}}{IE_{fq}}$$

$$IntC_{fy} = \frac{OI_{fy}}{IE_{fy}}$$

LTDtE (Long-Term Debt Ratio)

Long-term_Debt / Total_Equity

$$LTDtE_{fq} = \frac{LtD_{fq}}{Eq_{fq}}$$

$$LTDtE_{fy} = \frac{LtD_{fy}}{Eq_{fy}}$$

NM (Net-Margin)

Trivial

OPM (Operating-Profit Margin)

Trivial

EBITDAM (Ebitda Margin)

Trivial

NM_I2yrAvg_chg

2Year Average of NM_chg(YoY)

$$NMchg_{2yrAvg,fq} = \frac{(\sum_{i=t-4Q}^t NM_i - NM_{i-4Q})}{4}$$

$$NMchg_{2yrAvg,fy} = \frac{(\sum_{i=t-1yr}^t NM_i - NM_{i-1yr})}{2}$$

OPM_I2yrAvg_chg

2Year Average of OPM_chg(YoY)

$$OPMchg_{2yrAvg,fq} = \frac{(\sum_{i=t-4Q}^t OPM_i - OPM_{i-4Q})}{4}$$

$$OPMchg_{2yrAvg,fy} = \frac{(\sum_{i=t-1yr}^t OPM_i - OPM_{i-1yr})}{2}$$

EBITDAM_I2yrAvg_chg

2Year Average of EbitdaM_chg(YoY)

$$EbitdaMchg_{2yrAvg,fq} = \frac{(\sum_{i=t-4Q}^t EbitdaM_i - EbitdaM_{i-4Q})}{4}$$

$$EbitdaMchg_{2yrAvg,fy} = \frac{(\sum_{i=t-1yr}^t EbitdaM_i - EbitdaM_{i-1yr})}{2}$$

OpLev (Operating Leverage)

(Revenue - COGS_exDepreciation) / Operating_Income

$$OpLev_{fq} = \frac{RV_{fq} - COGS_{fq}}{OP_{fq}}$$

$$OpLev_{fy} = \frac{RV_{fy} - COGS_{fy}}{OP_{fy}}$$

ROE_ws

Trivial

ROA_ws

Trivial

GPM_ws

Trivial (Gross-profit margin)

REVg_l1yr_ws

Trivial (last 1year Revenue Growth)

NIg_l1yr_ws

Trivial (last 1year Net-Income Growth)