
# Best Practices in Hedging

## Monitoring and Rebalancing Custom Hedge Baskets

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# Today, we will cover:

**1.**

**Monitoring your hedge**

I. Realized Performance

II. Predicted Risk

**2.**

**When to Rebalance your hedge (and portfolio)**

# MONITORING OF YOUR HEDGE

# Hedge Starting Point

## Short Macy's, Build a Long Custom Hedge Basket on 2/28/2020

| | |
|---|---|
| Total Risk | 13.85% |
| **Risk Decomposition** | |
| Specific | 91.40% |
| Factors | 8.60% |
| **Market** | 0.00% |
| **Style** | 6.97% |
| **Sector** | 1.63% |



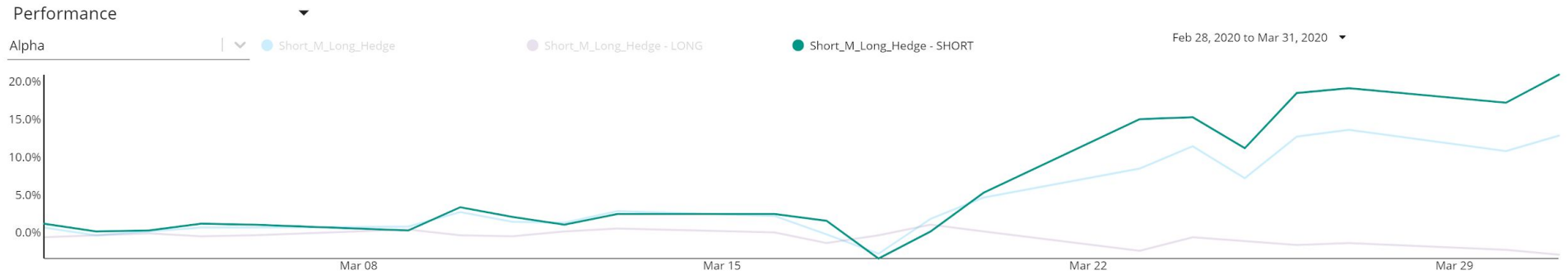
Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)

# Hedge Monitoring Checklist

- ❑ Is my **Investment Thesis** producing **Alpha Returns**?
- ❑ Is my **Hedge Basket** effectively hedging my **Factor Returns**?
- ❑ Is the **Predicted Factor Risk** in my **Portfolio** at acceptable levels?
- ❑ Are the **Predicted Risks** associated with my **Investment Thesis** acceptable?
- ❑ Are the **Predicted Risks** associated with my **Hedge Basket** acceptable?
- ❑ Is the **Composition** of my **Hedge Basket** acceptable?

# Hedge Monitoring: Performance

## Is my **Investment Thesis** producing **Alpha Returns**?



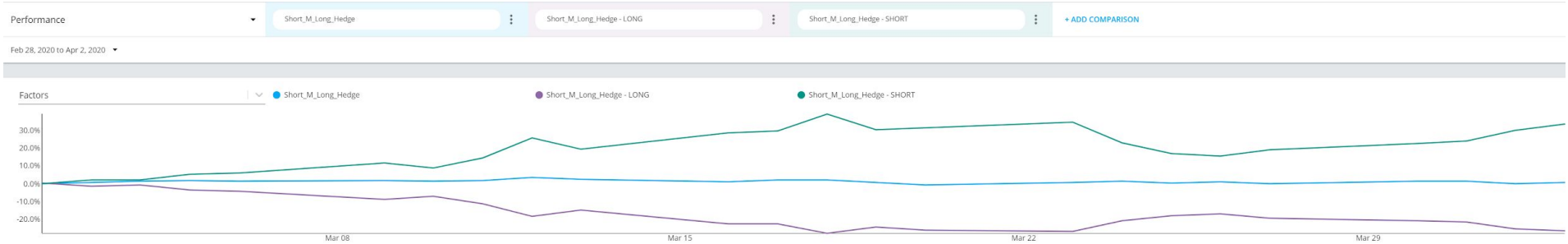

| | Short_M_Long_Hedge | Short_M_Long_Hedge - LONG | Short_M_Long_Hedge - SHORT |
|---|---|---|---|
| Alpha | 12.82% | -2.93% | 20.96% |
| Factors | 1.25% | -21.66% | 23.91% |



Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)

# Hedge Monitoring: Performance

Is my **Hedge Basket** effectively hedging my **Factor Returns**?




| | | | |
|---|---|---|---|
| **Total Return** | 8.49% | -31.11% | 50.43% |
| Alpha | 7.83% | -4.28% | 17.05% |
| Factors | 0.66% | -26.83% | 33.37% |
| **Market** | 0.17% | -7.24% | 6.69% |
| **Style** | 6.06% | -12.68% | 23.10% |
| **Sector** | -5.57% | -6.92% | 3.59% |



Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)

# Hedge Monitoring: Predicted Risk

Is the **Factor Risk** in my Portfolio at acceptable levels?

## 2/28/2020

| | |
|---|---|
| Total Risk | 13.85% |
| **Risk Decomposition** | |
| Specific | 91.40% |
| Factors | 8.60% |
| Market | 0.00% |
| Style | 6.97% |
| Sector | 1.63% |

## 4/2/2020

| | |
|---|---|
| Total Risk | 24.09% |
| **Risk Decomposition** | |
| Specific | 91.82% |
| Factors | 8.18% |
| Market | 3.69% |
| Style | 0.52% |
| Sector | 3.96% |

But we do see some **Market Exposure** -we are now Net Long

| | |
|---|---|
| Market | 0.15 |



Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)

# Hedge Monitoring: Predicted Risk

Are the **Predicted Risks** associated with my **Investment Thesis** acceptable?

Predicted Risks of Macy's:

| | 2/28/2020 | 4/2/2020 |
|---|---|---|
| Total Risk | 30.84% | 73.87% |
| **Risk Decomposition** | | |
| Specific | 6.86% | 3.34% |
| Factors | 93.14% | 96.66% |
| **Market** | 46.75% | 43.13% |
| **Style** | 38.95% | 42.40% |
| **Sector** | 7.43% | 11.13% |



Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)

# Hedge Monitoring: Predicted Risk

Are the **Predicted Risks** associated with my **Hedge Basket** acceptable?

Predicted Risk of Hedge Basket on Standalone Basis

| | 2/28/2020 | 4/2/2020 |
|---|---|---|
| Total Risk | 43.74% | 105.56% |
| **Risk Decomposition** | | |
| Specific | 33.24% | 23.28% |
| Factors | 66.76% | 76.72% |
| **Market** | 26.16% | 25.24% |
| **Style** | 35.52% | 46.41% |
| **Sector** | 5.09% | 5.08% |



Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)

# Hedge Monitoring: Composition

## Is the **Composition** of my **Hedge Basket** acceptable?

### Top 10 positions in Hedge Basket

| ID | Short_M_Long_Hedge - LONG |
|---|---|
| GPS | 6.42 |
| KSS | 4.66 |
| JWN | 3.78 |
| DBI | 3.14 |
| ANF | 2.80 |
| AEO | 2.31 |
| FL | 2.13 |
| GES | 2.02 |
| CONN | 1.78 |
| PLCE | 1.70 |

All Positions

| ID | Short_M_Long_Hedge - LONG |
|---|---|
| GPS | 15.07 |
| GME | 8.46 |
| W | 7.29 |
| ANF | 6.07 |
| CONN | 4.74 |
| AEO | 4.54 |
| KSS | 4.45 |
| BIG | 4.19 |
| QRTEA | 4.19 |
| FL | 3.80 |



Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)

# WHEN TO REBALANCE YOUR HEDGE

# When to Rebalance: Systematic Framework

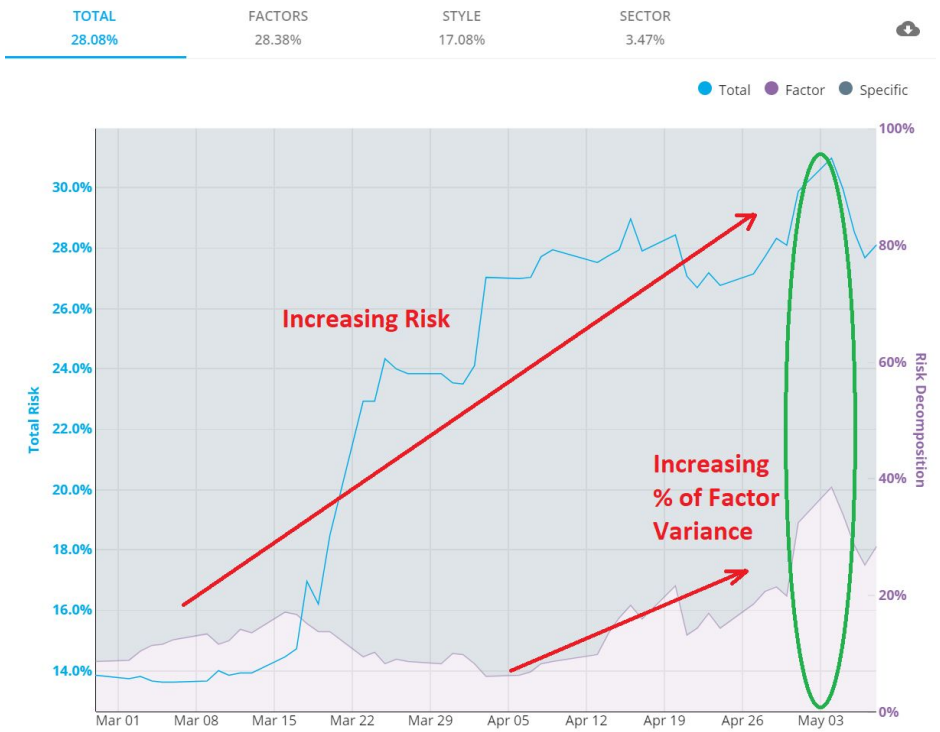
| Expected Return | Risk | Transaction Costs |
|---|---|---|
| **Expected Return**<br><br>How much price appreciation is left?<br><br>*Source: Analyst and PM* | **Undesired Factor Risk**<br><br>How much can you reduce your Undesired Factor Value at Risk?<br><br>*Source: Factor Risk Model* | **Cost to Rebalance**<br><br>How much will it cost you to Execute your trades?<br><br>*Source: Broker/borrow rates* |

Systematic Framework for Decision Making: **Think in $'s**

E[R] - Value at Risk - Transaction Costs = Net Added Value by Trade

**Net Value > 0 -> make the trade!**

# When to Rebalance: Factor Value at Risk




**Increasing Risk**

**and**

**Increase in % Factor Risk**

**leads to:**

**Increase in $ Factor VaR**



*Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)*

# When to Rebalance: Unhedged Example

| Expected Return | Risk | Transaction Costs |
|---|---|---|
| - $5M long position<br>- 50% Expected Return | - Monthly Risk of 18.8%<br>- 50% of Variance from Factors, 50% Specific | - 5 bps linear cost for buys/sells<br>- Negligible Market Impact |

| Expected Return | Risk | | | Transaction Costs | | Total |
|---|---|---|---|---|---|---|
| Expected Return | Total Risk (monthly) | % Factor Risk | 95% Monthly Factor VaR | 5 bps Linear | 50 bps Borrow Cost | Net Value |
| $2,500,000 | 18.8% | 50% | $1,300,270 | $2,500 | $- | $1,197,229 |



Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)

# When to Rebalance: Hedged Example

| Expected Return | Risk | Transaction Costs |
|---|---|---|
| - $5M long position<br>- 50% Expected Return of Asset<br>- 0% Expected Return of Hedge | - Annualized Risk of Hedged portfolio = 30%<br>- 8% of Variance from Factors in Hedged Portfolio | - 5 bps linear cost for buys/sells<br>- Negligible Market Impact<br>- 50 bps Borrow Cost |

| Expected Return | Risk | | | Transaction Costs | | Total |
|---|---|---|---|---|---|---|
| Expected Return | Total Risk (monthly) | % Factor Risk | 95% Monthly Factor VaR | 5 bps Linear | 50 bps Borrow Cost | Net Value |
| $2,500,000 | 8.7% | 8% | $480,100 | $5,000.00 | $25,000 | $1,989,900 |



*Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)*

# When to Rebalance: Hedging adds Value

Expected Return | Risk | Transaction Costs

| Analytic | Expected Return | Risk | | | Transaction Costs | | Total |
|---|---|---|---|---|---|---|---|
| | Expected Return | Total Risk (monthly) | % Factor Risk | 95% Monthly Factor VaR | 5 bps Linear | 50 bps Borrow Cost | Net Value |
| Asset Alone | $2,500,000.00 | 18.8% | 50% | $1,300,271 | $2,500 | $- | $1,197,229 |
| Asset + Hedge | $2,500,000.00 | 8.7% | 8% | $480,100 | $5,000 | $25,000 | $1,989,900 |

Adding the Hedge Provides $792,670.82 of Extra Value

**Net Value > 0 -> make the trade!**



*Sources: Omega Point Platform; Axioma Short Horizon US Equity Model (AXUS4-SH)*

# When to Rebalance: Types of Trades

Expected Return | **Risk** | **Transaction Costs**

**High Conviction Trade**
Increase in E[R] >> abs(Factor VaR)
Increase in E[R] >> abs(TCosts)

**All-Around Trade**
Increase in E[R]
Decrease in Factor VaR
Minimal TCosts

**Short Availability Decrease**
Increase in Borrow Costs >> Increase in E[R]

**Hedge Trade**
E[R] ~ 0
Decrease in Factor VaR >> TCosts

# When to Rebalance: Define your Aversion

| Expected Return | Risk | Transaction Costs |
| --- | --- | --- |
| **Expected Return**<br><br>How much price appreciation is left?<br><br>Source: Analyst and PM | **Undesired Factor Risk**<br><br>How much can you reduce your Undesired Factor Value at Risk?<br><br>Source: Factor Risk Model | **Cost to Rebalance**<br><br>How much will it cost you to Execute your trades?<br><br>Source: Broker/borrow rates |

E[R]
- <VaR aversion> * Value at Risk
- <Trade aversion> * Transaction Costs = Net Value

# Pulling this all together for an Intuitive Workflow....

## Upcoming Webinar

Join us next week for the final webinar in our 4-Part Best Practices in Hedging Series:

**Single Stock Hedging using SmartTrades™**

Apply the lessons of Parts 1 - 3 to build, monitor, and rebalance your own SmartTrades™ in the Omega Point platform.

**Registration Link**

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