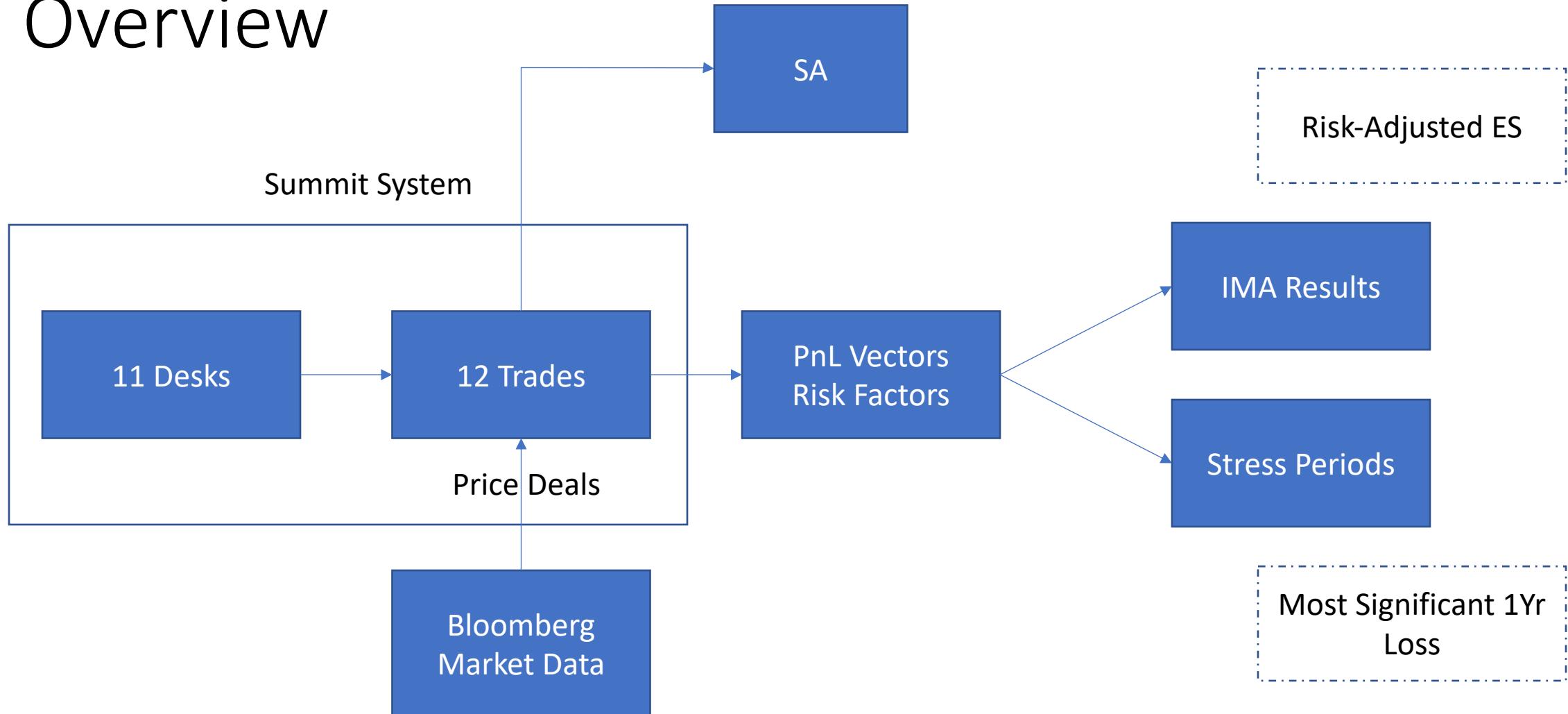


# IMA Results

Team2

# Overview



- SA: Standard Approach, parametric-based
- IMA: Internal Model Approach, risk-adjusted

# Current 250D Per-Desk Risk Charges

	Desk2_A	Desk2_B	Desk2_C	Desk2_D	Desk2_E	Desk2_F	Desk2_G	Desk2_H	Desk2_I	Desk2_J	Desk2_K
Trade Description	Buy 1M FX Fwd USD/EUR	Sell 2M FX Fwd USD/EUR	Buy 3M FX Fwd USD/EUR	5Y LIB3M	5Y LIB1M	Swaption	Hedged Swap	Buy USD/CHF 3M FX Fwd	Buy EUR/BRL 3M FX Fwd	Buy USD/BRL 3M FX Fwd	Sell USD/BRL 3M FX Fwd
SA	2,124,774	2,140,487	2,155,544	506,073	518,152	1,686,066	36,284	1,747,827	4,512,190	2,268,643	2,268,643
250D IMA	185,876	236,514	186,496	62,900	64,686	75,033	970	170,982	273,343	17,122	15,902
Percentage Difference	<0.35%			<3%		-	-	-	-	<8%	
	Group 1			Group 2			Group 3			Group 4	

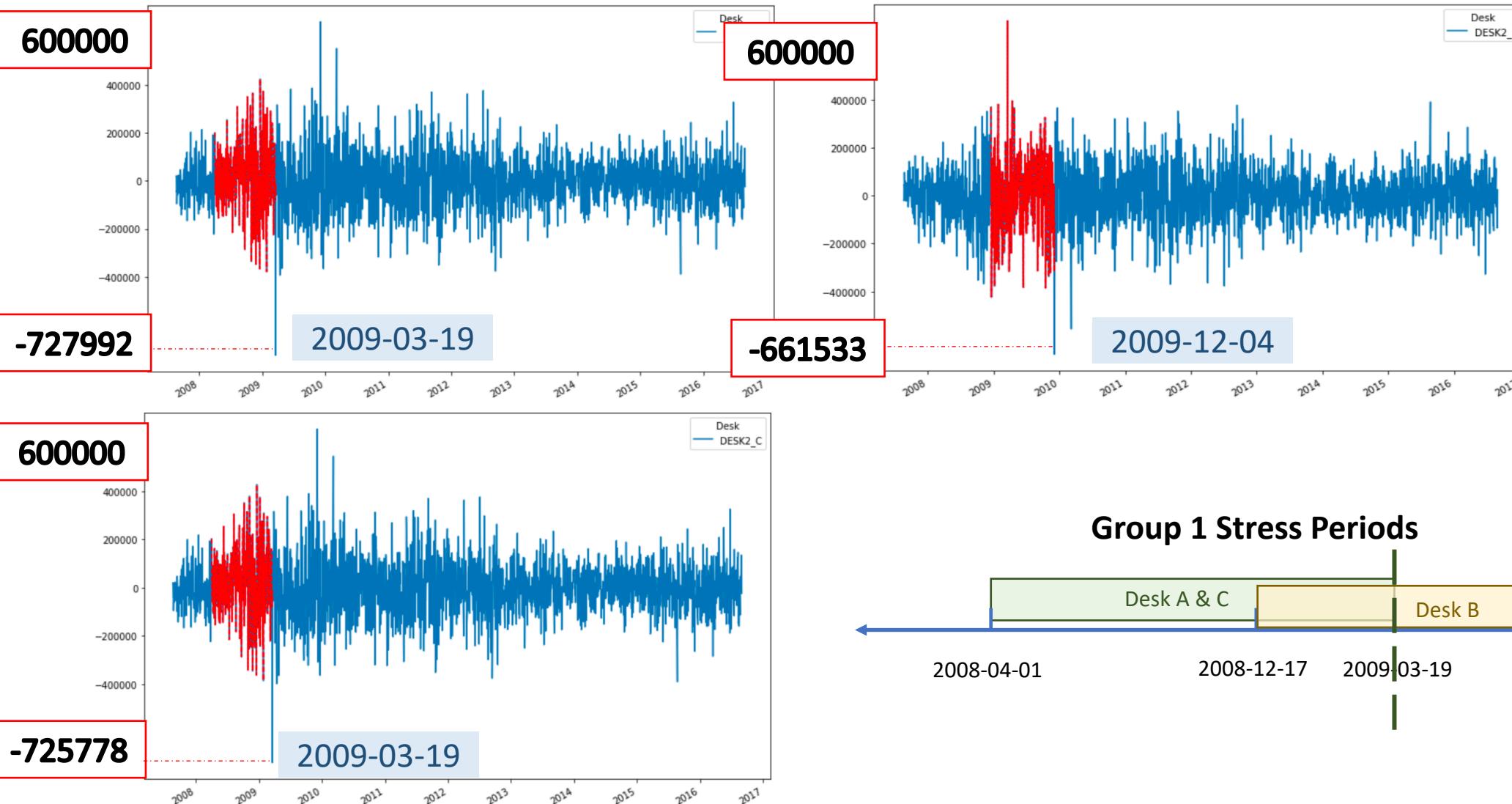
## Factors determining IMA results

Market Risks

Trade Types

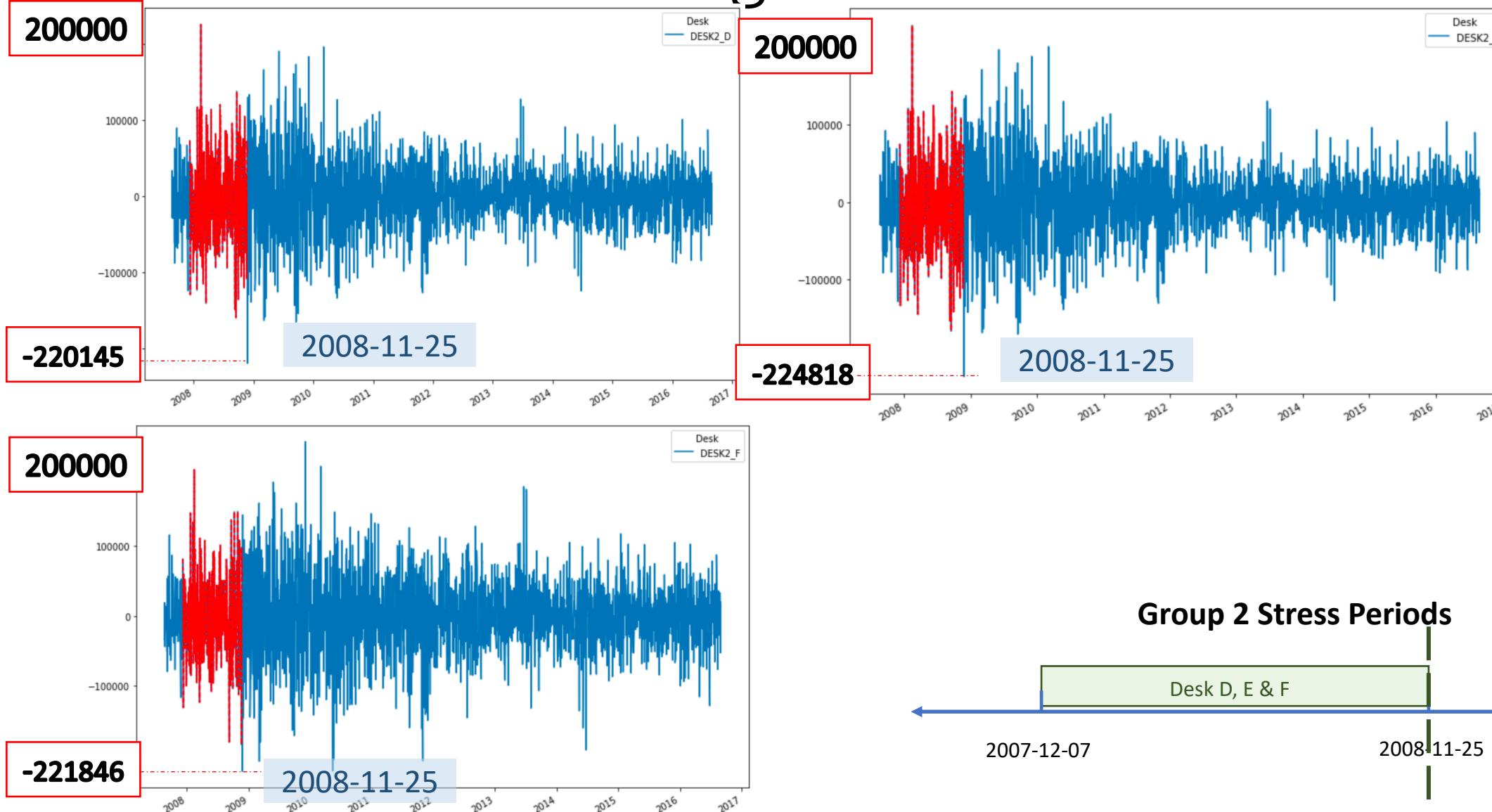
Underlying Asset

# 10-Year 1-Yr Rolling Profit and Loss



## Group 1 Stress Periods

# 10-Year 1-Yr Rolling Profit and Loss

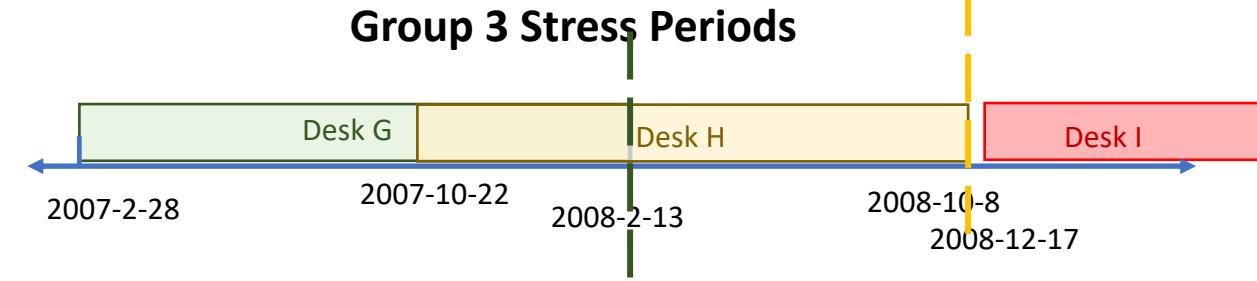
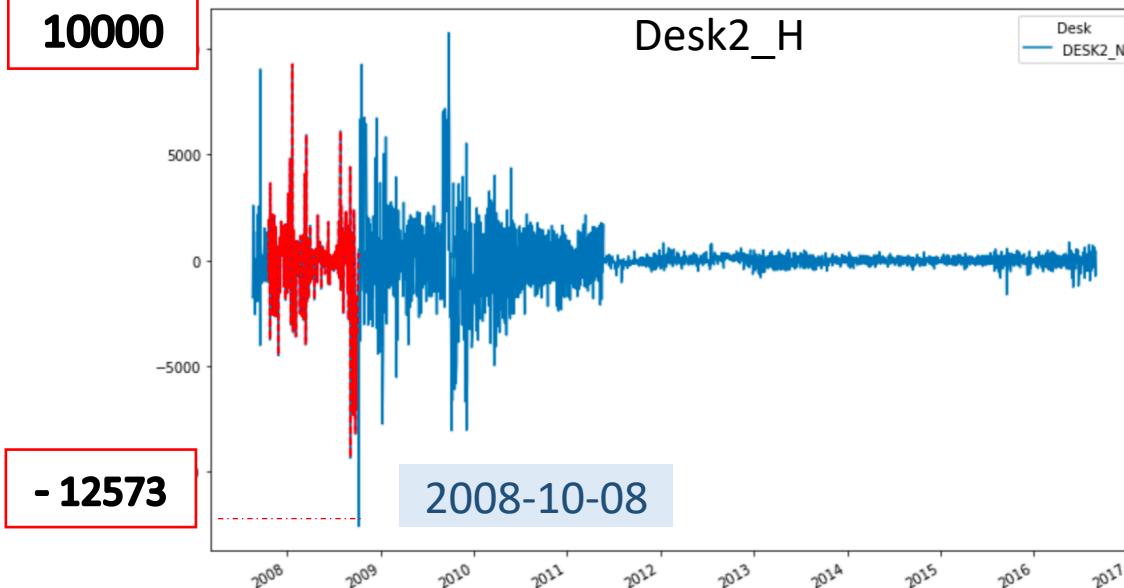
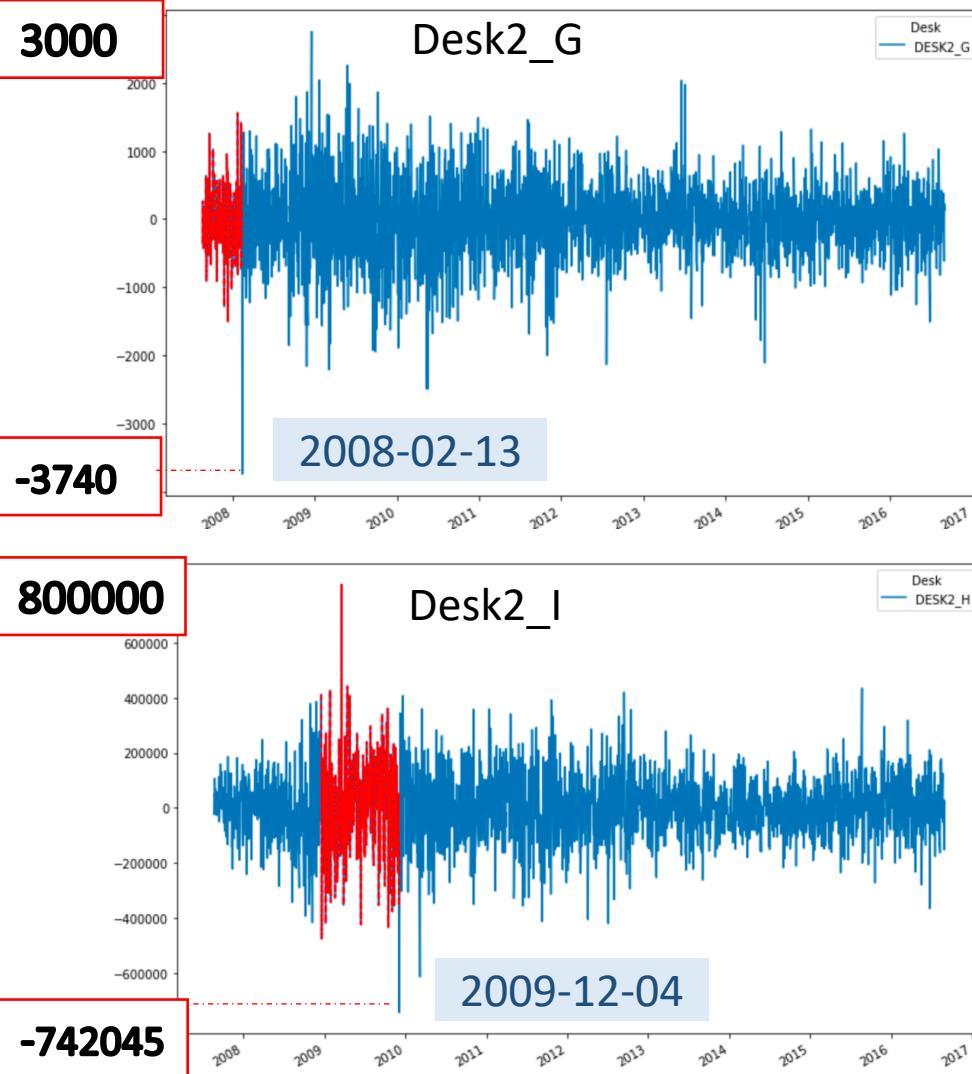


Group 2 Stress Periods

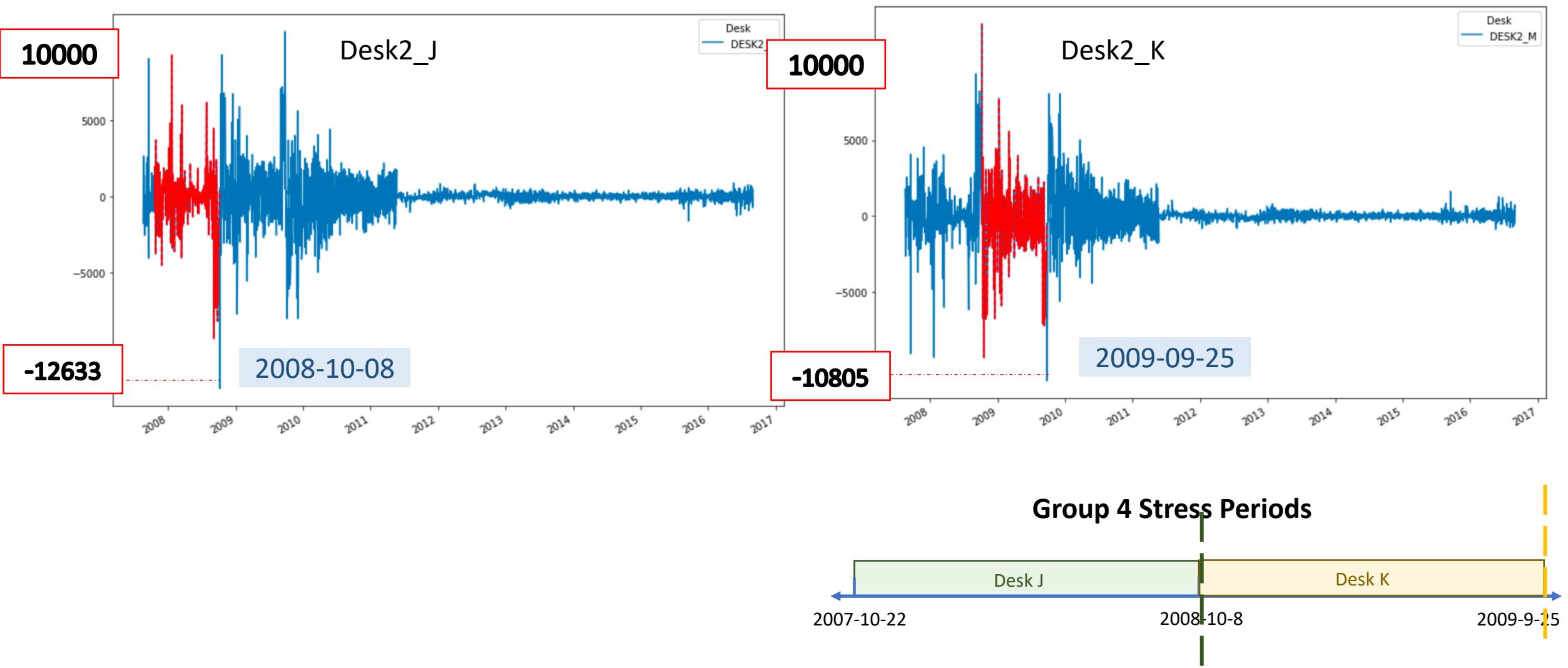
2007-12-07

2008-11-25

# 10-Year 1-Yr Rolling Profit and Loss



# 10-Year 1-Yr Rolling Profit and Loss

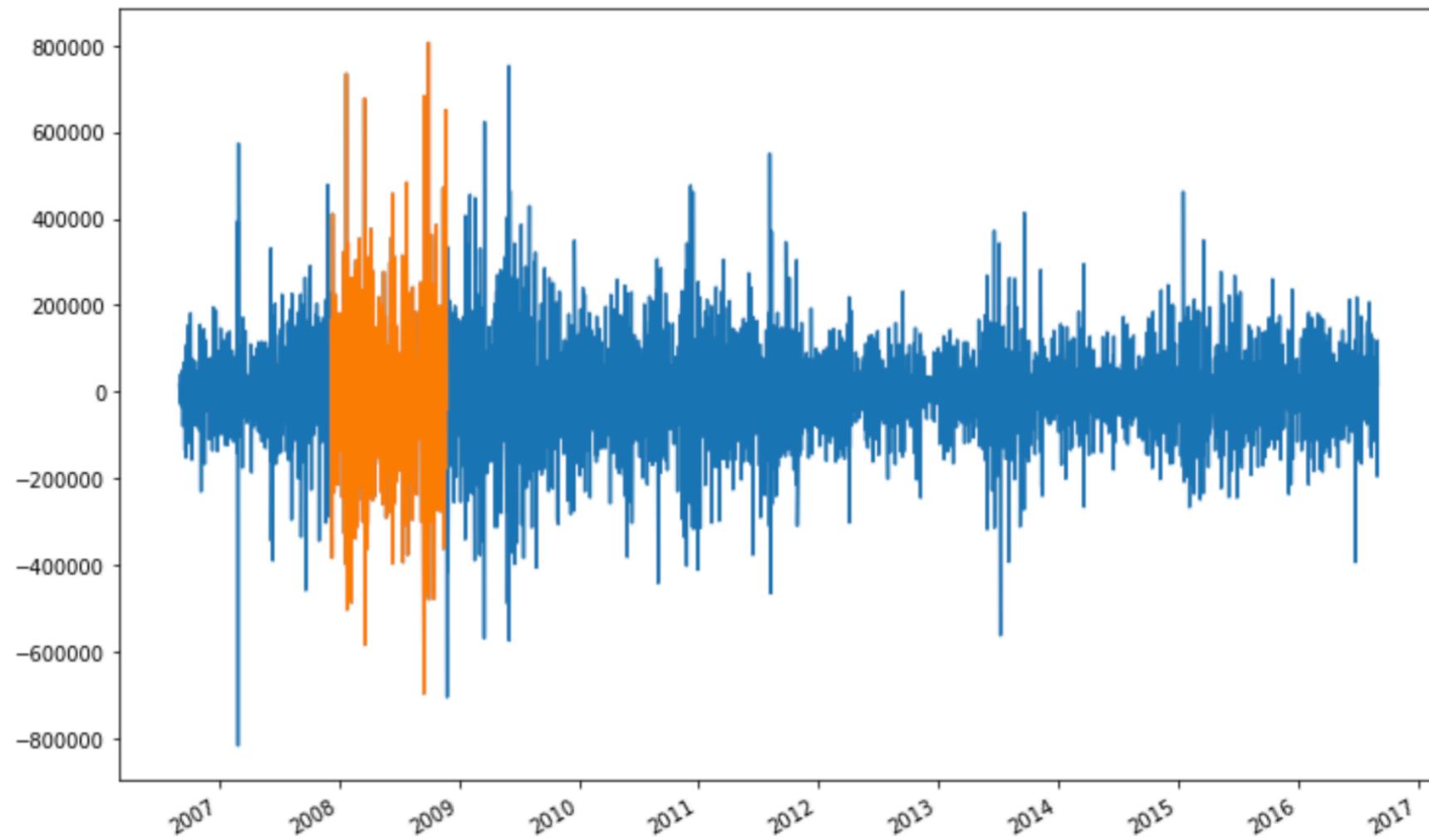


# 10Y Stress Period IMA Results

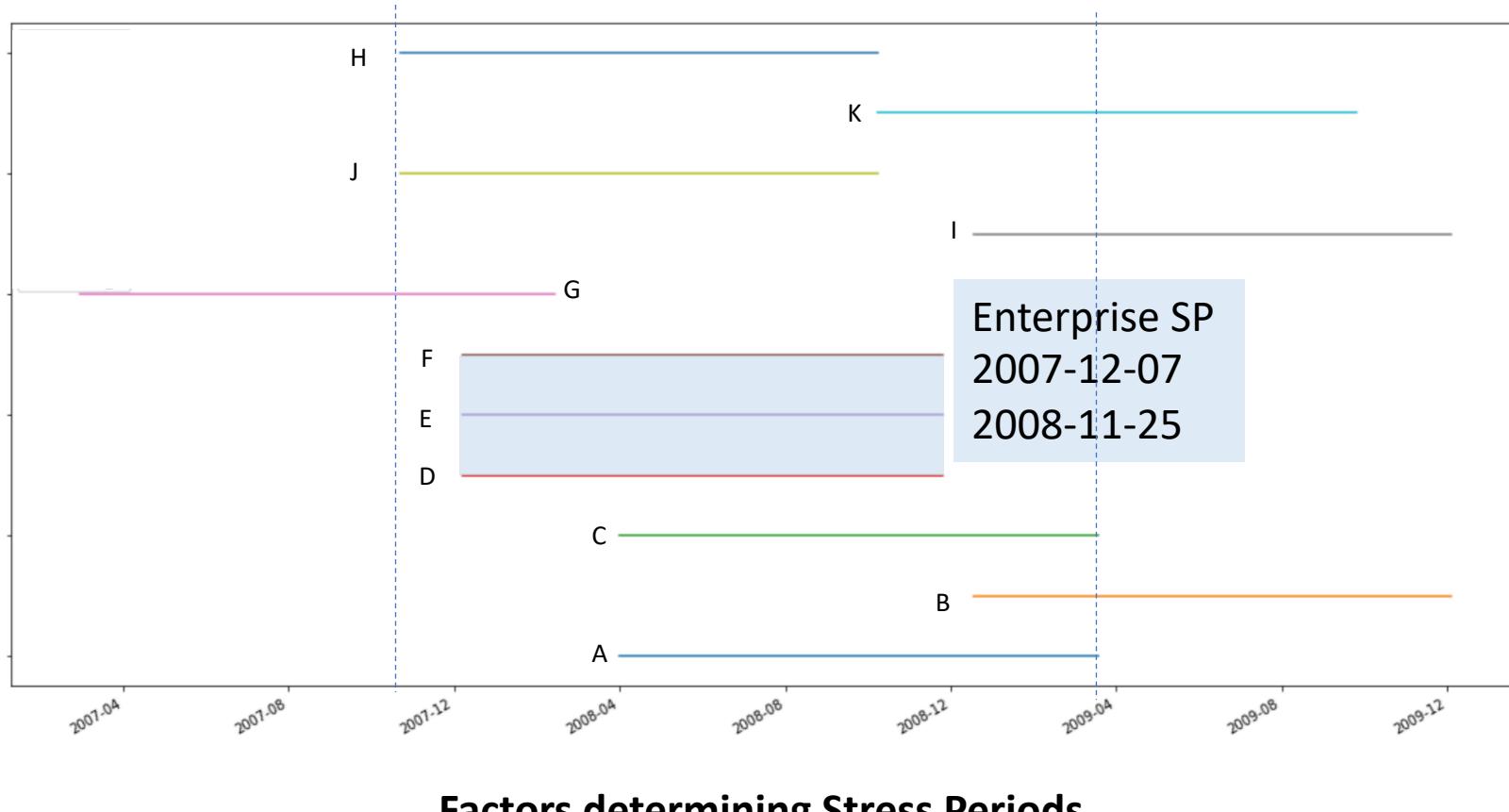
	Desk2_A	Desk2_B	Desk2_C	Desk2_D	Desk2_E	Desk2_F	Desk2_G	Desk2_H	Desk2_I	Desk2_J	Desk2_K
Trade Description	Buy 1M FX Fwd USD/EUR	Sell 2M FX Fwd USD/EUR	Buy 3M FX Fwd USD/EUR	5Y LIB3M	5Y LIB1M	Swaption	Hedged Swap	Buy USD/CHF 3M FX Fwd	Buy EUR/BRL 3M FX Fwd	Buy USD/BRL 3M FX Fwd	Sell USD/BRL 3M FX Fwd
250D IMA	185,876	236,514	186,496	62,900	64,686	75,033	970	170,982	273,343	17,122	15,902
Desk Stress Period IMA	454,460	395,076	460,894	168,958	174,109	152,542	1,504	289,791	454,000	43,928	60,574
Group 1			Group 2			Group 3			Group 4		

Enterprise SP IMA	402,082	391,663	408,130	168,958	174,109	152,542	2,243	321,865	466,987	57,171	63,910
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# Enterprise Level Profit and Loss



# Desk Stress Periods vs Enterprise Stress Period

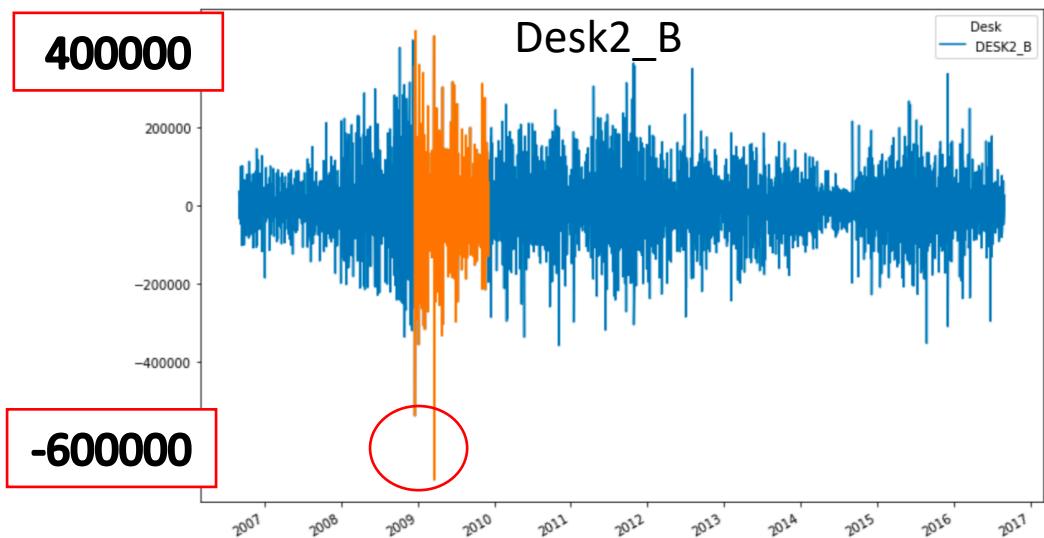
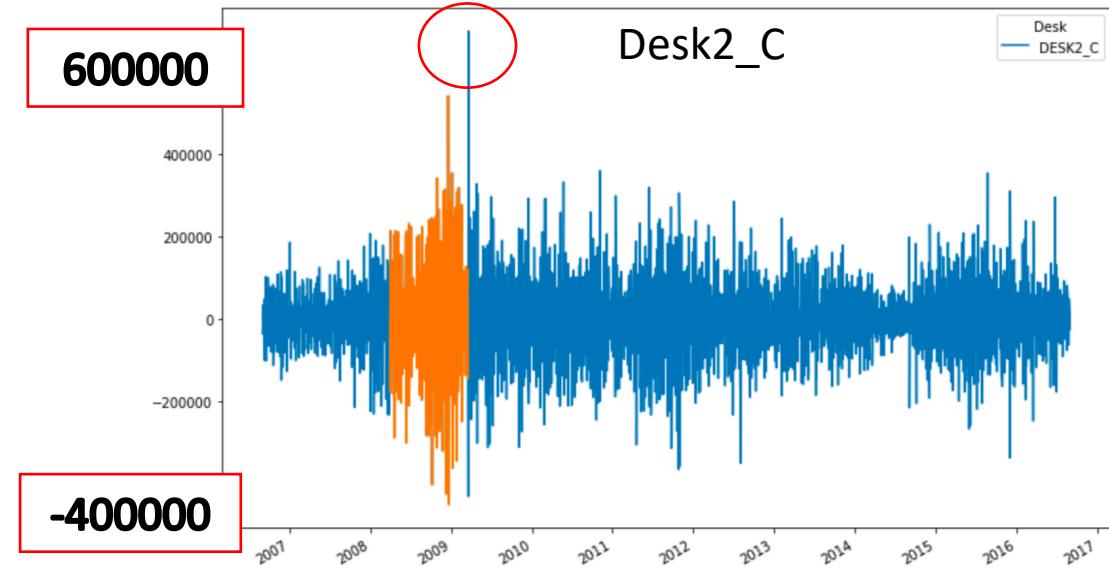
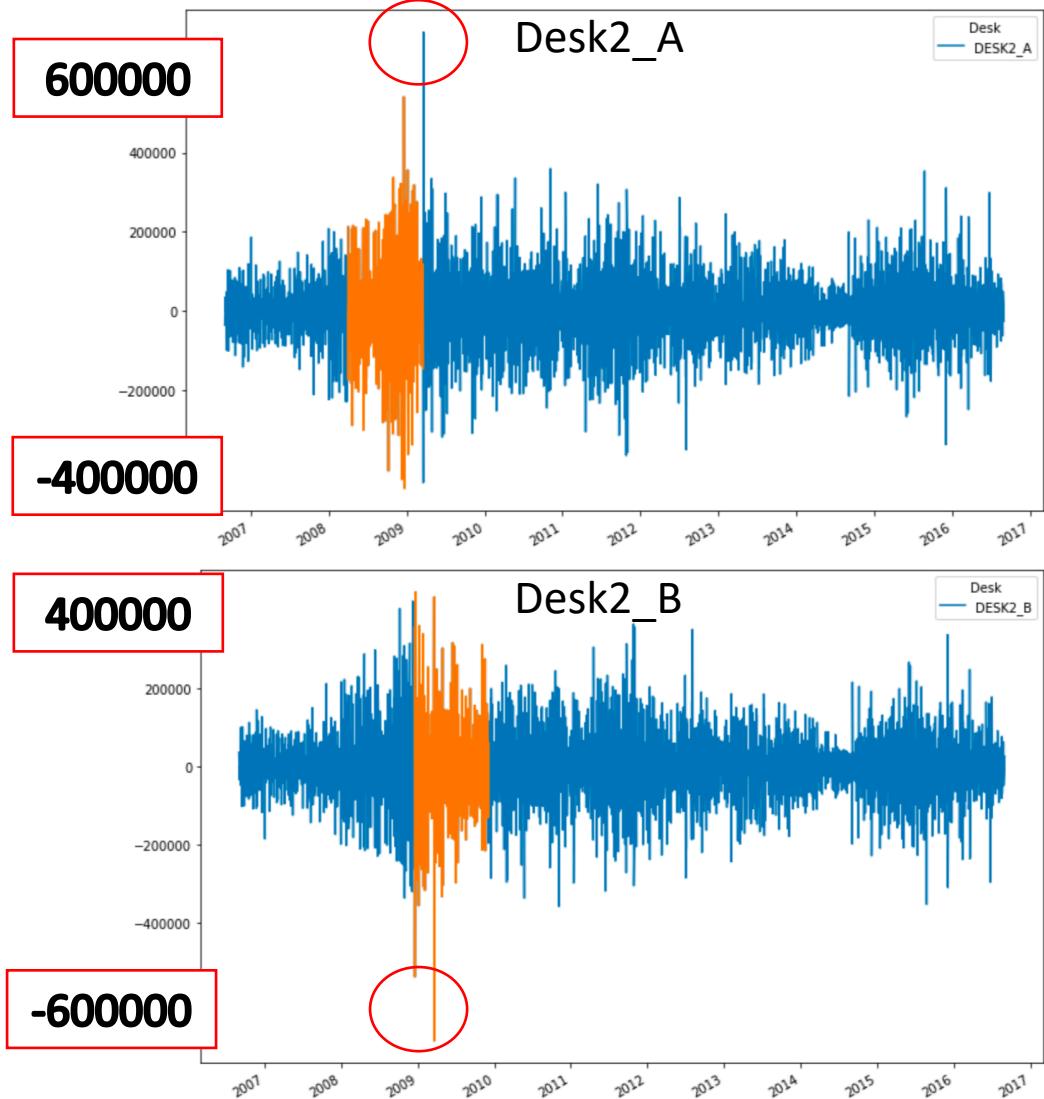


Market Risks

Trade Types

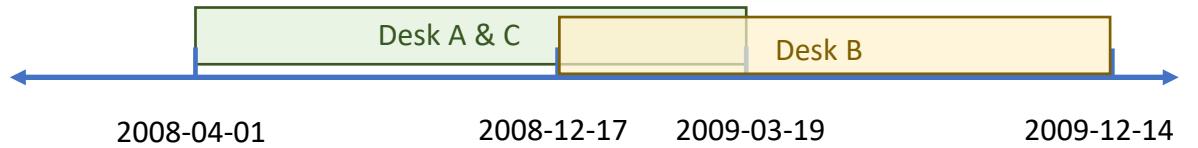
Underlying Asset

# 10-Year Daily Profit and Loss – Group1

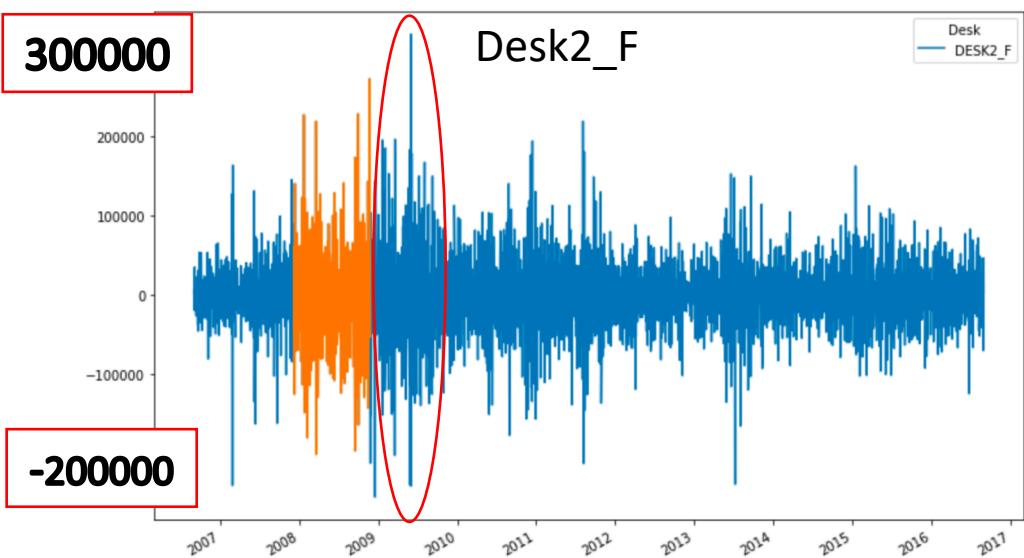
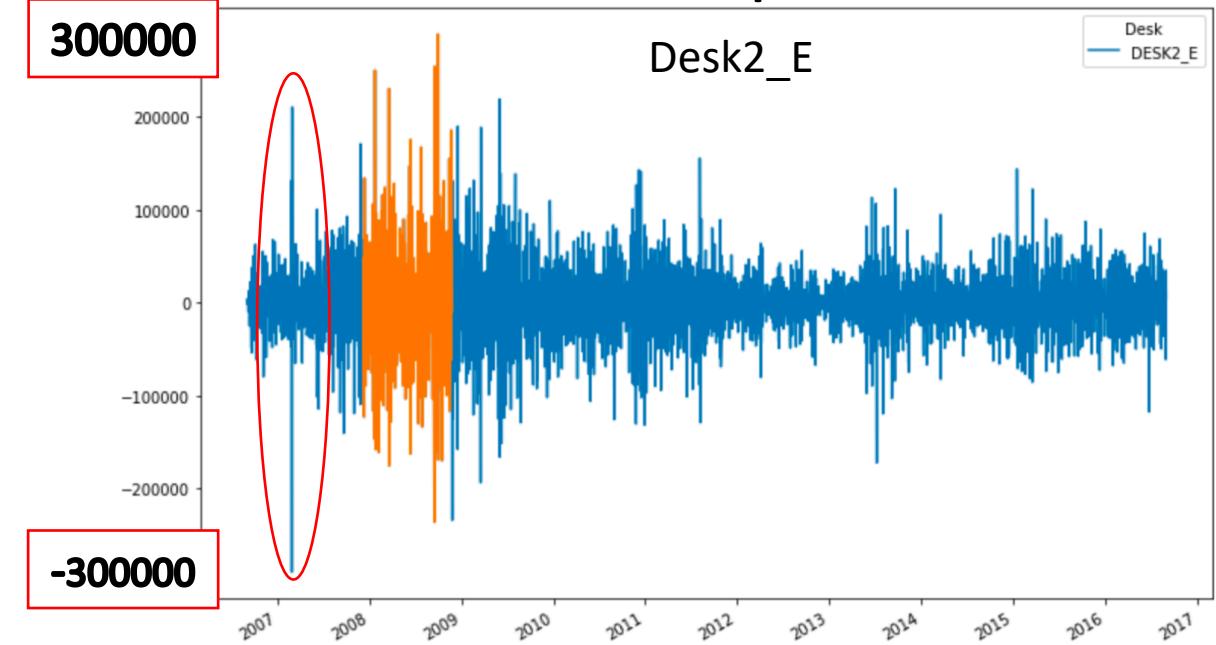
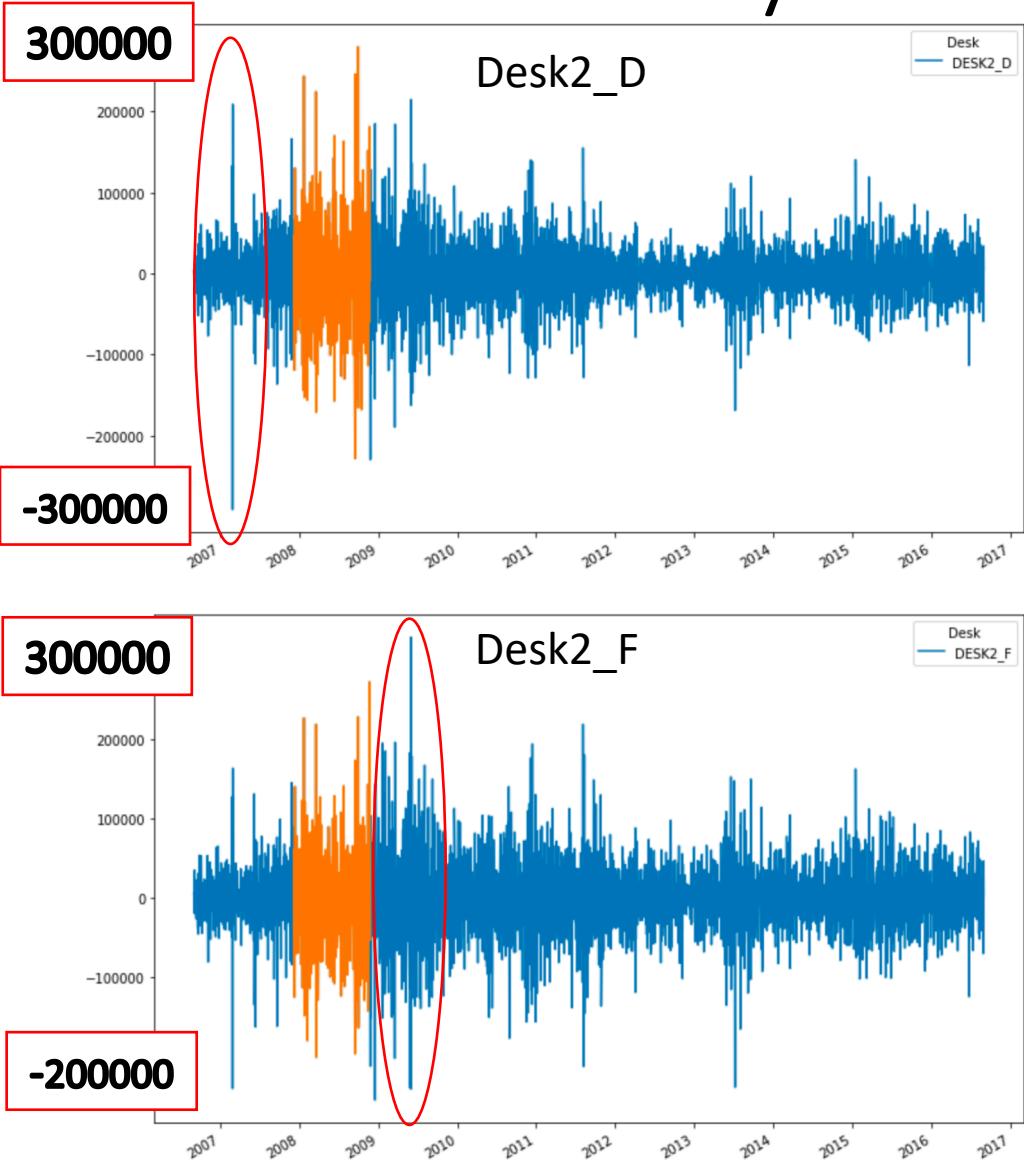


ESP Group pnl	A	B	C	Total
	-348313	350816	-346359	-343857

## Group 1 Stress Periods



# 10-Year Daily Profit and Loss – Group2

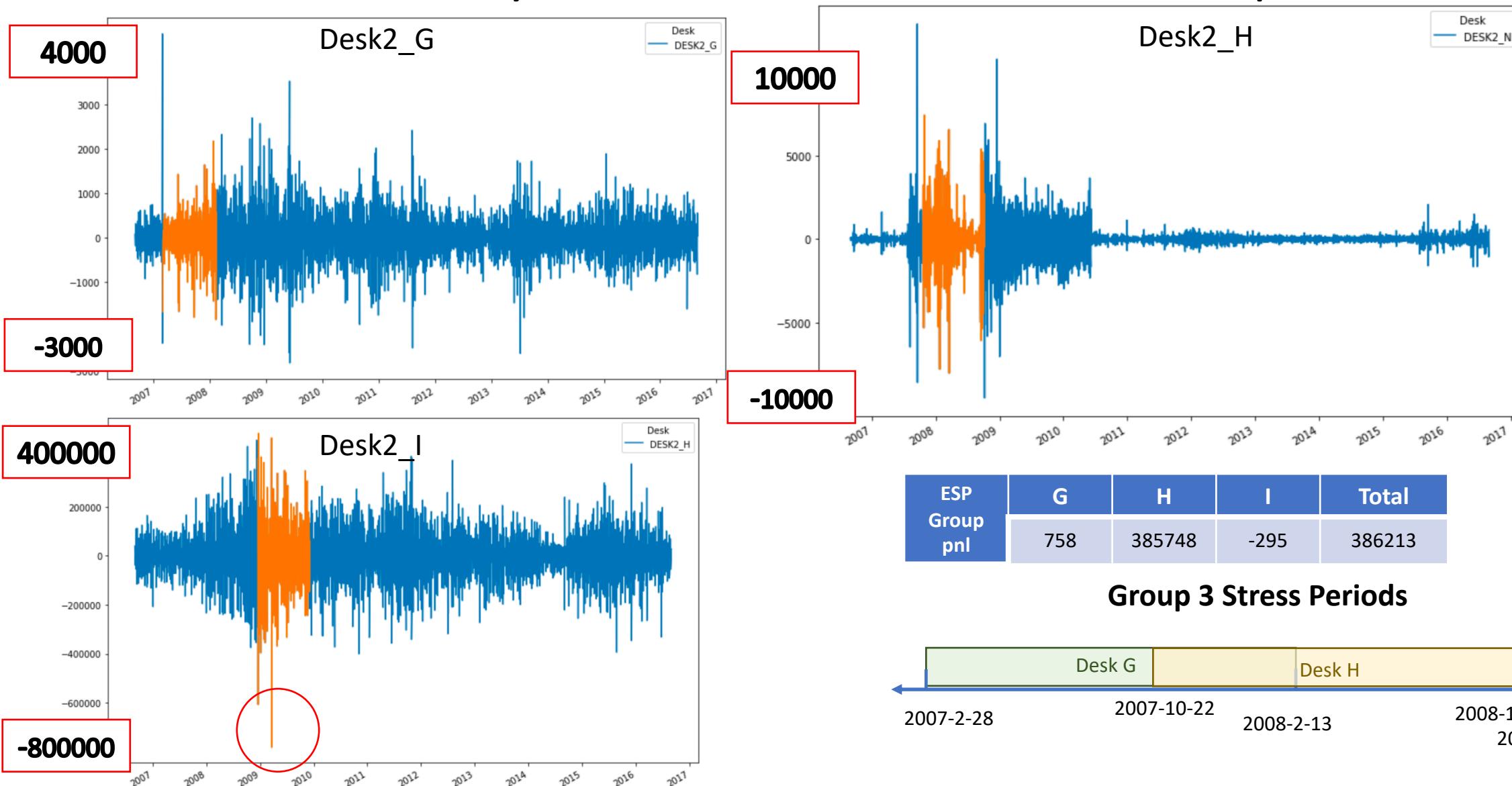


ESP Group pnl	D	E	F	Total
	56641	56374	49721	162738

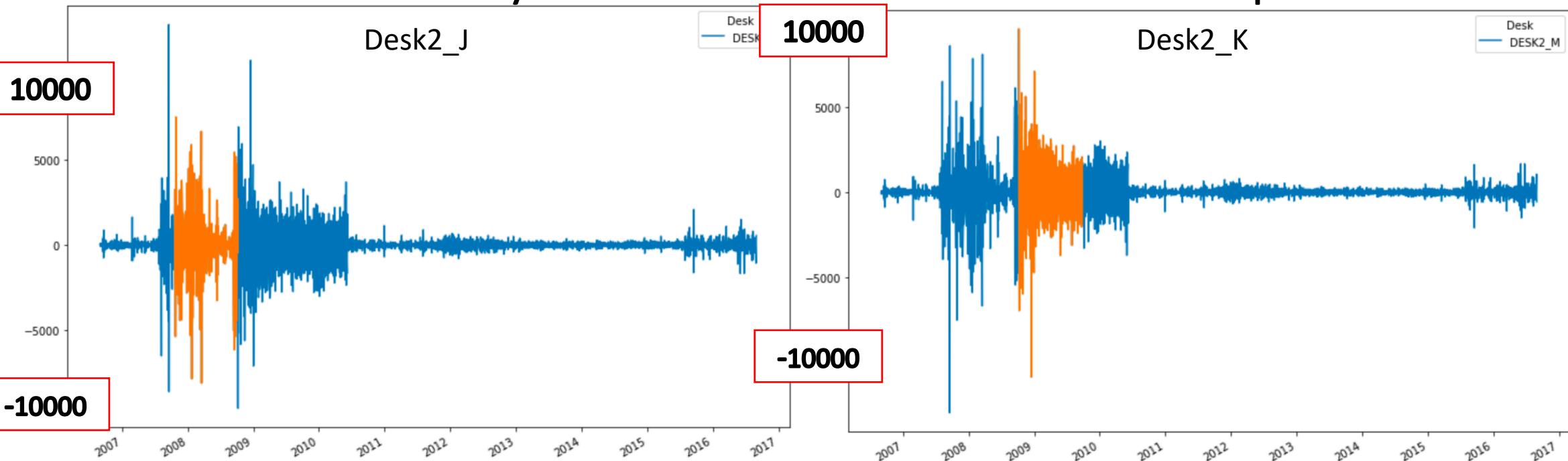
## Group 2 Stress Periods



# 10-Year Daily Profit and Loss – Group3

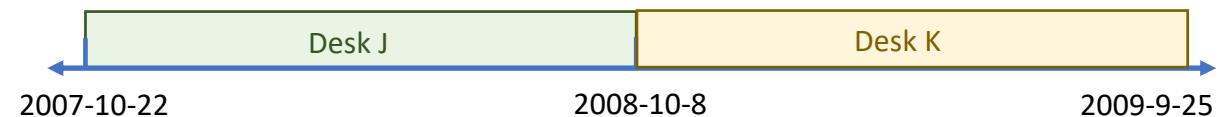


# 10-Year Daily Profit and Loss – Group4



ESP Group pnl	J	K	Total
	-282	282	0

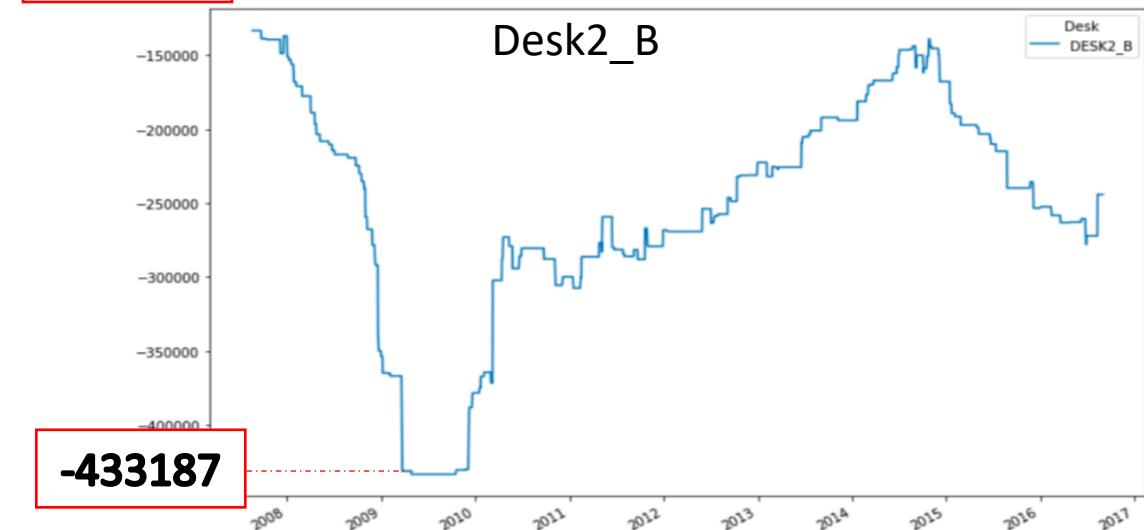
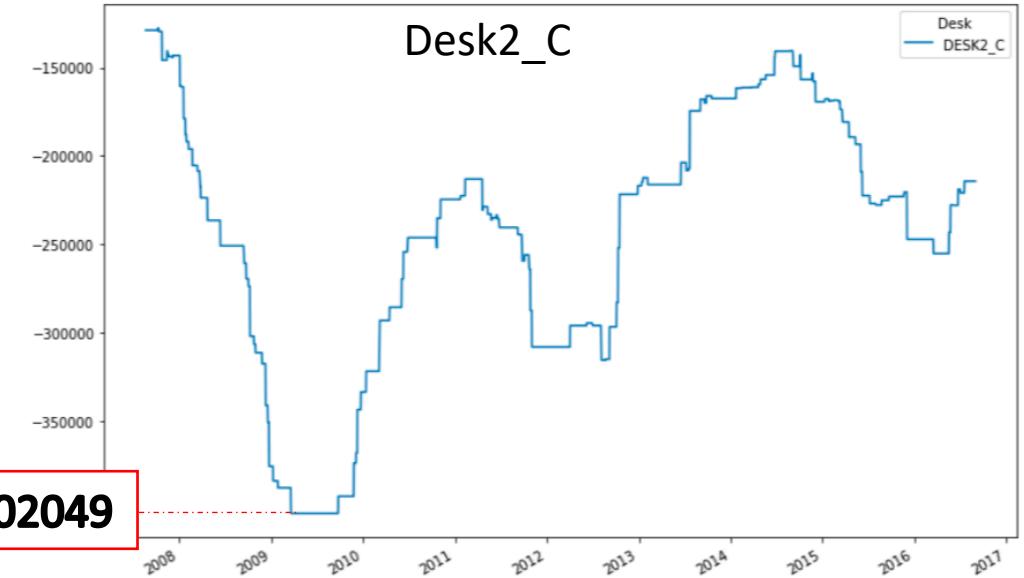
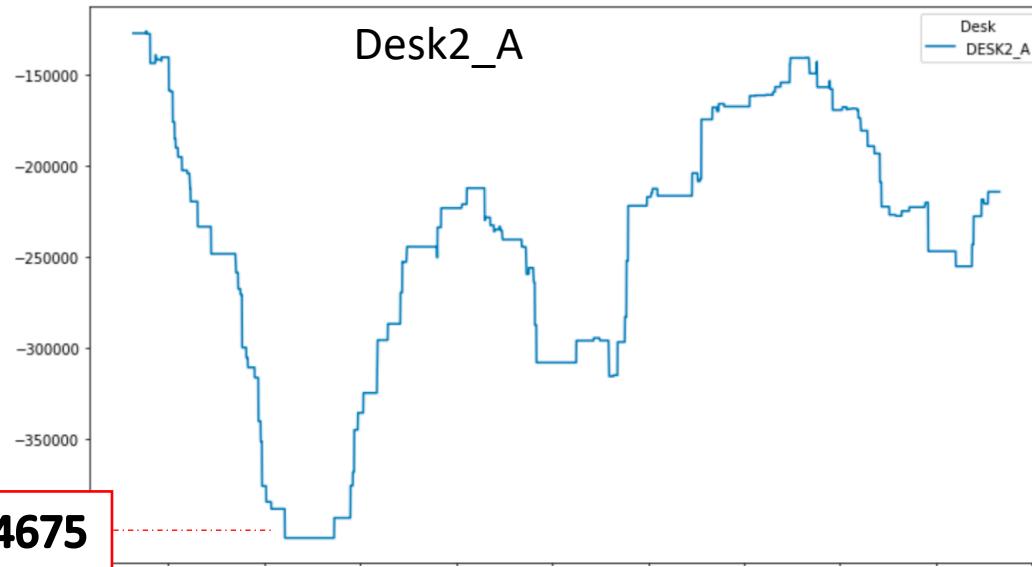
Group 4 Stress Periods



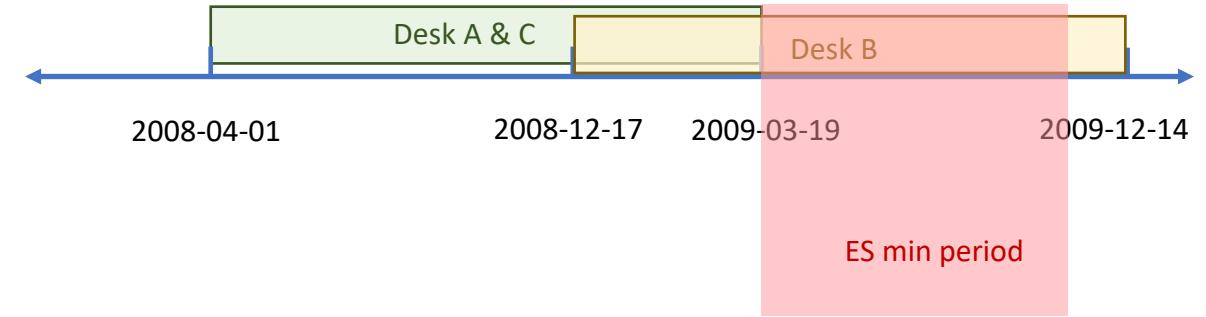
# Group 1 Contributes the most

	Desk2_A	Desk2_B	Desk2_C	Desk2_D	Desk2_E	Desk2_F	Desk2_G	Desk2_H	Desk2_I	Desk2_J	Desk2_K
Trade Description	Buy 1M FX Fwd USD/EUR	Sell 2M FX Fwd USD/EUR	Buy 3M FX Fwd USD/EUR	5Y LIB3M	5Y LIB1M	Swaption	Hedged Swap	Buy USD/CHF 3M FX Fwd	Buy EUR/BRL 3M FX Fwd	Buy USD/BRL 3M FX Fwd	Sell USD/BRL 3M FX Fwd
250D IMA	-348313	350816	-346359	56641	56374	49721	758	385748	-295	-282	282
Group Total	-343857			162738			386213			0	
	Group 1			Group 2			Group 3			Group 4	

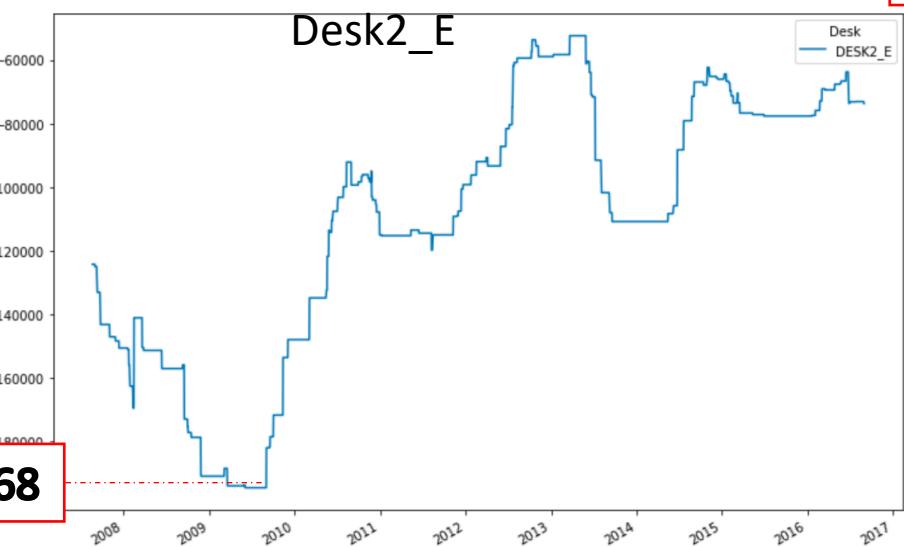
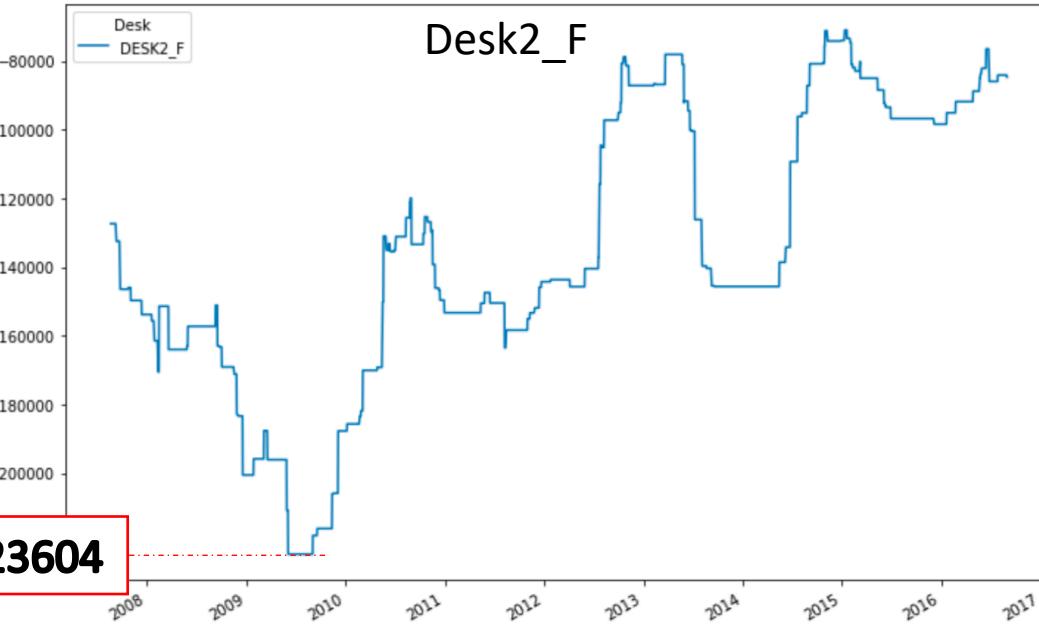
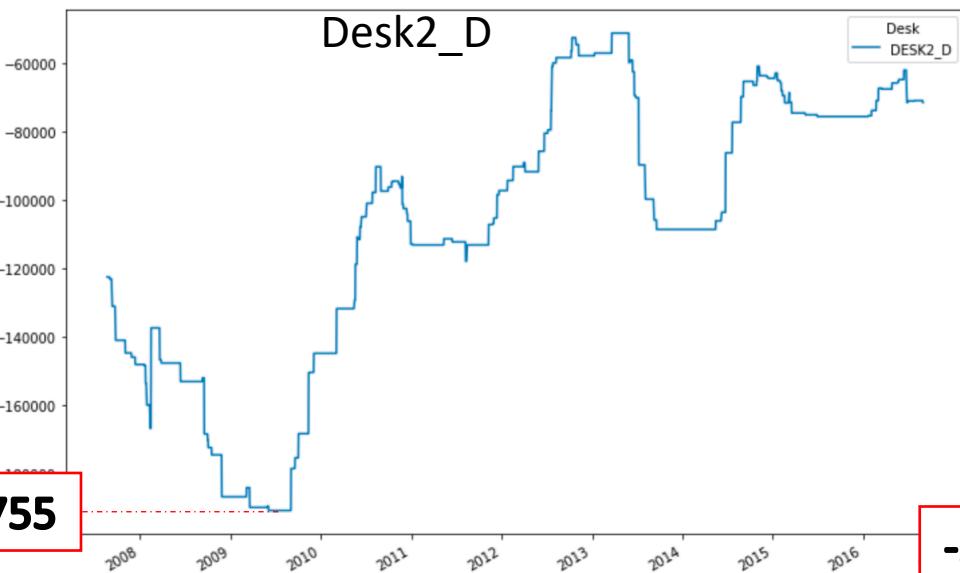
# 10-Year 1-Year Rolling ES



## Group 1 Stress Periods



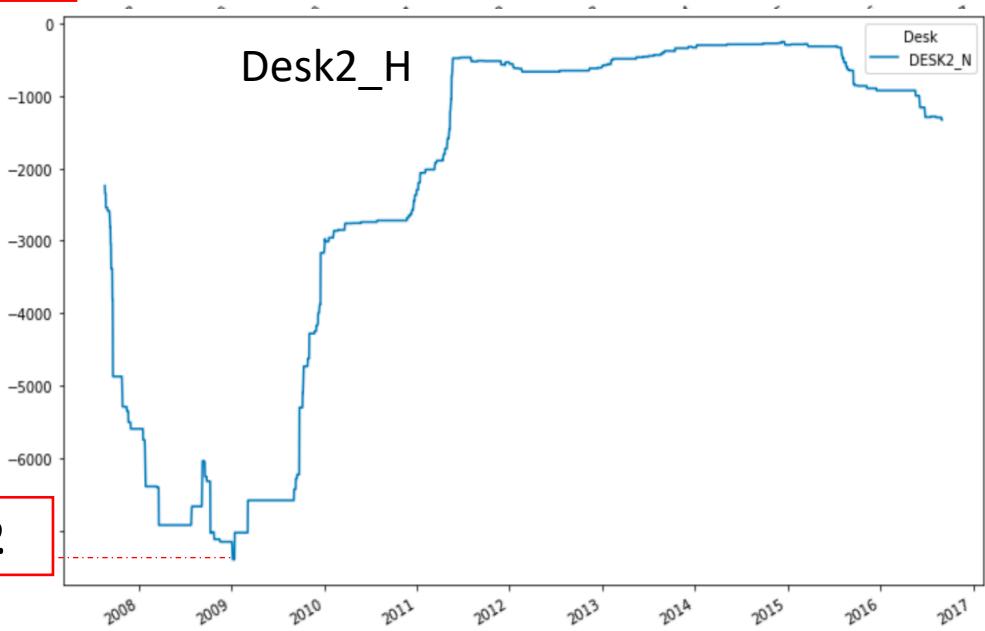
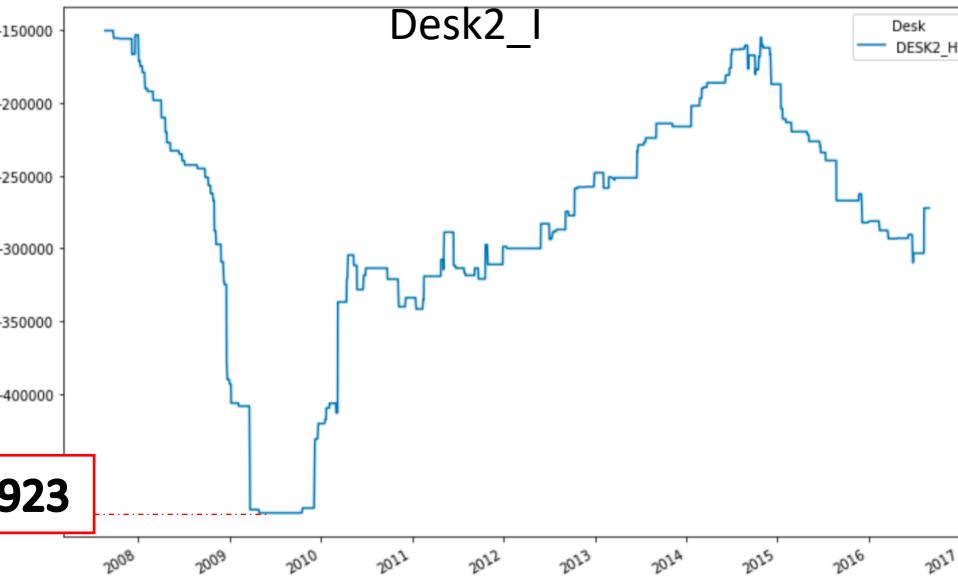
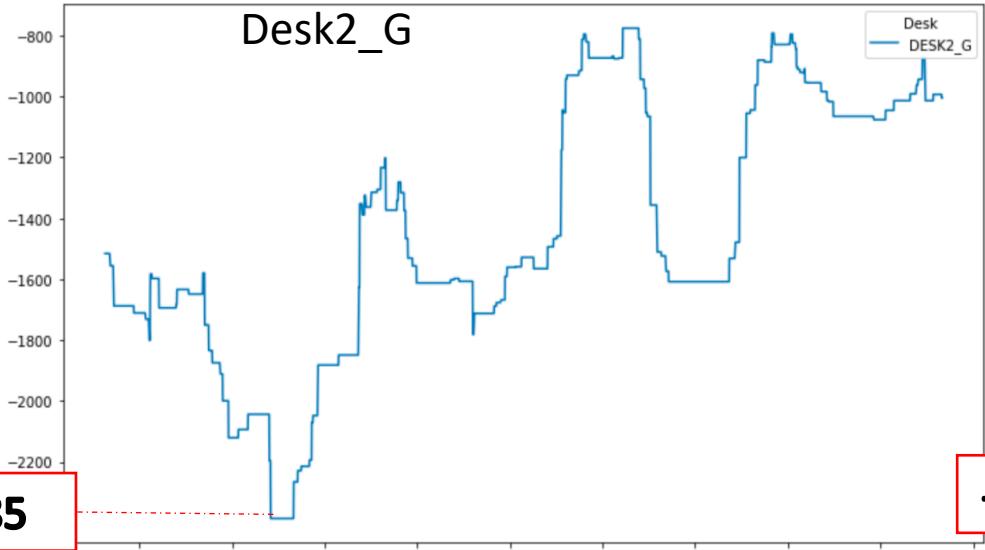
# 10-Year 1-Year Rolling ES



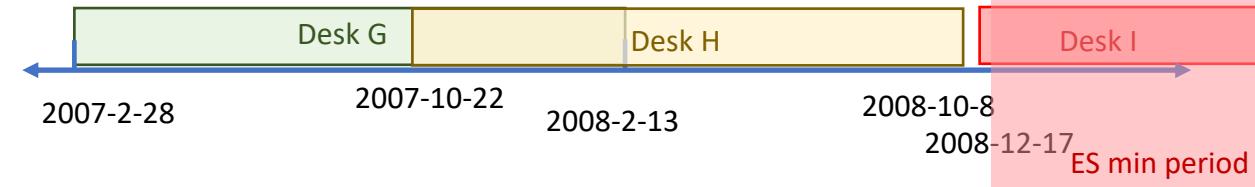
**Group 2 Stress Periods**



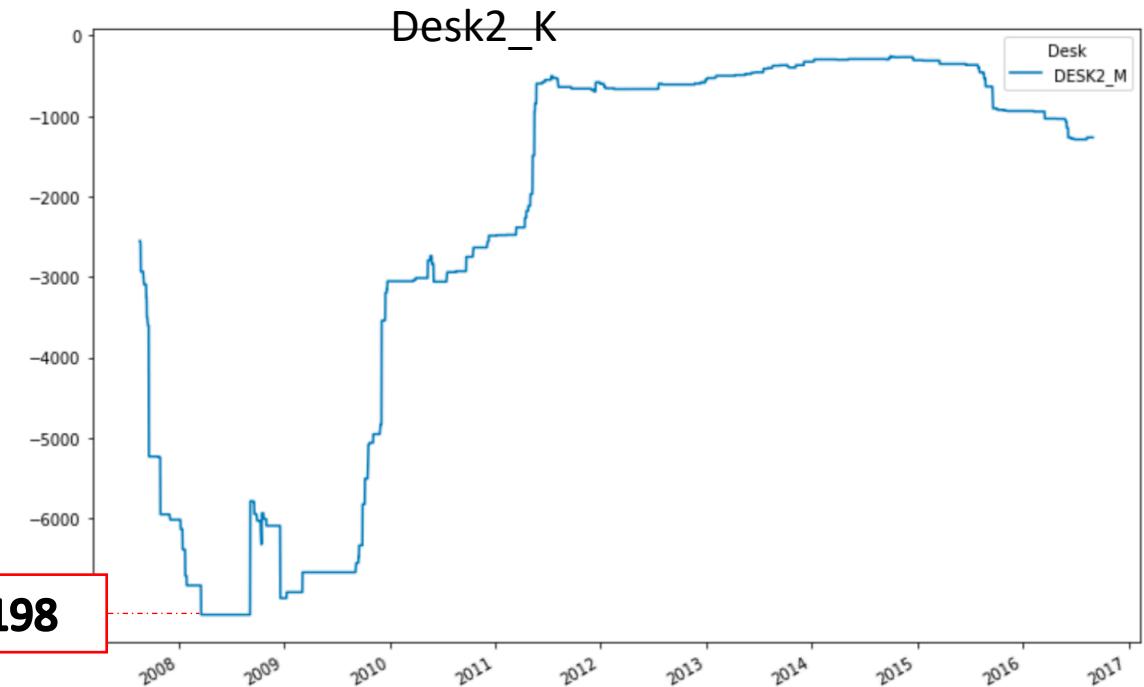
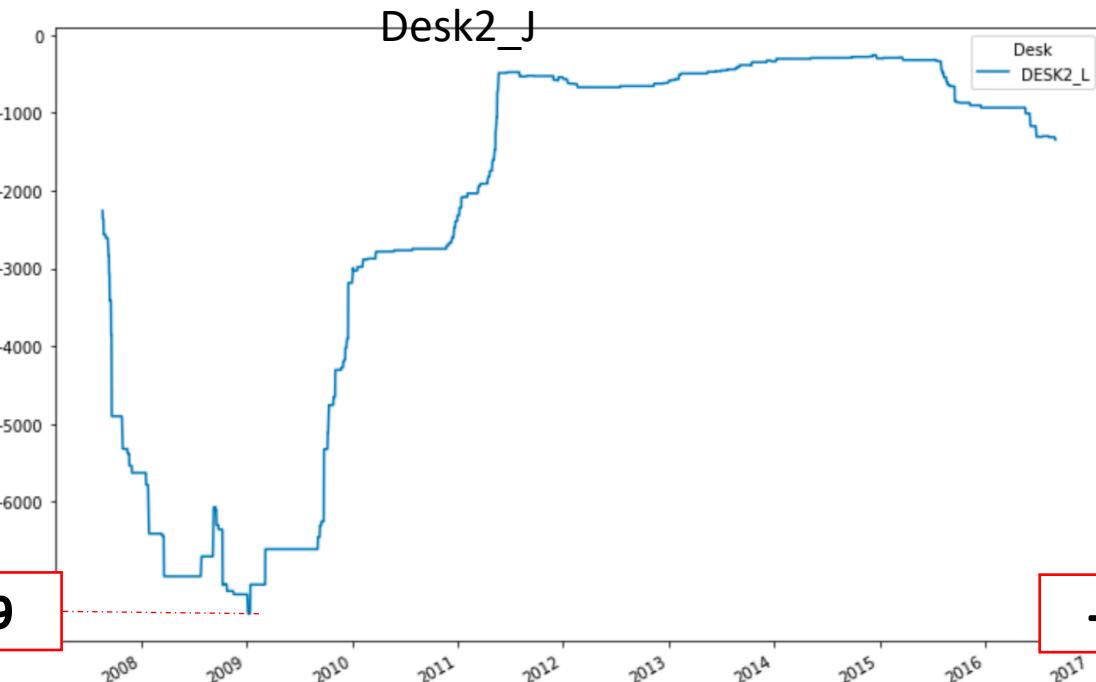
# 10-Year 1-Year Rolling ES



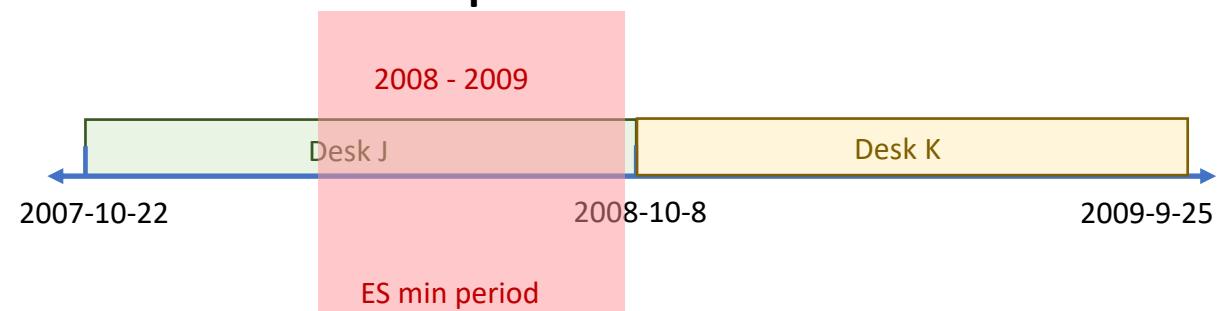
## Group 3 Stress Periods



# 10-Year 1-Year Rolling ES



## Group 4 Stress Periods



# Conclusion

- Long term or FX will increase risk charges
- No full hedge-effect in enterprise level IMA
- Minimal 1-year pnl as a good indicator or stress period
- Group 1 contributes the most to Enterprise level Stress period
- ES results and 1-year rolling results mismatch