

A light blue world map is centered in the background of the slide.

eurex

Introduction to Spread Trading Eurex Equity Index Futures

May 2010

Objectives

Presentation Focuses on Familiarization with Spread Trading

- Benefits of Spread Trading
- Understanding the EURO STOXX 50® and DAX® Index Futures
- Strategies and Tactics for Trading Synthetic Spreads

Background

John Netto

- Former Market Maker on Mini Dollar Dax
- Author, “One Shot – One Kill Trading” (McGraw-Hill, 2004) and “Spread Trading Eurex Equity Index Futures: A Guide for Traders”
- Proprietary Trader
- Live in NYC, San Francisco, and Las Vegas
- Nine Years in US Marines

Understanding the EURO STOXX 50® and DAX® Index Futures

- Background of products (EURO STOXX 50®, DAX®, ES)
- Dual Factor and Multi-Factor Spreads
- Contract Ratios
- Charting of Spread

Strategies for Trading Spreads

- Mean Reversion
- Trend Following

Familiarization with Spreads

Benefits of Spread Trading

- Watch Money Flows in Market
- Gain Sense of Relative Strength
- Track Volatility
- Insight to Risk Aversion/Risk Appetite
- Benefit to Currency Traders with Country Specific News
- Upward Sloping Yield Curve
- Widening Contango or Flattening Forward Curve

Create, Trade, and Manage Spreads

Presentation will focus on spreading

- DAX® Index Futures (FDAX)
 - 30 German stocks
- EURO STOXX 50® Index Futures (FESX)
 - France (19), Germany (13), Italy (6), Spain (6), Netherlands (4), Belgium (1), and Finland (1)
 - Banks, Utilities, Telco
- S & P 500 Futures (ES)
 - Most widely followed US Equity benchmark

Margin and Contract Information – April 30 Close

FESX – 2 AM ET – 4 PM ET

- Tick Value – 10 Euros
- Initial/Maintenance Margin – 3,194 Euros (\$3,900)
- Notional Value – 2725 = 27,250 Euros = (\$36,000)

FDAX – 2 AM ET – 4 PM ET

- Tick Value – 25 Euros (trades in half ticks)
- Initial Margin – 15,727 (\$20,000)
- Notional Value – 6100 (\$200,000)

ES –

- Tick Value - \$12.50 (\$59,200 in notional value 1184.00 close)
- Initial - \$5,625
- Maintenance Margin - \$4,500

Components of DAX® Index

Ticker	Name	% Weight in the Index	Shares in the Index
DAX	DAX		
ADS GY Equity	Adidas AG	1.257489	11.87955
ALV GY Equity	Allianz SE	7.719982	27.81189
BAS GY Equity	BASF SE	5.843517	56.38368
BAY GY Equity	Bayer AG	6.844599	46.92168
BMW GY Equity	Bayerische Motoren Werke AG	2.048232	19.73416
BEI GY Equity	Beiersdorf AG	0.599685	5.00448
CBK GY Equity	Commerzbank AG	0.824506	40.73869
DAI GY Equity	Daimler AG	5.471115	53.76103
DBK GY Equity	Deutsche Bank AG	5.493751	34.50022
DB1 GY Equity	Deutsche Boerse AG	2.358737	11.97068
LHA GY Equity	Deutsche Lufthansa AG	1.049882	28.11193
DPW GY Equity	Deutsche Post AG	1.934299	51.58235
DTE GY Equity	Deutsche Telekom AG	6.83274	182.86181
EOAN GY Equity	E.ON AG	9.90961	111.95205
FME GY Equity	Fresenius Medical Care AG & Co KGaA	1.308148	11.4994
FRE3 GY Equity	Fresenius SE	0.686946	4.94616
HNR1 GY Equity	Hannover Rueckversicherung AG	0.366743	3.68533
HEN3 GY Equity	Henkel AG & Co KGaA	0.832376	10.93708
SDF GY Equity	K+S AG	1.323569	7.55626
LIN GY Equity	Linde AG	2.232391	10.34325
MAN GY Equity	MAN AG	1.018618	6.38916
MRK GY Equity	Merck KGaA	1.032586	4.05831
MEO GY Equity	Metro AG	0.777938	6.79067
MUV2 GY Equity	Muenchener Rueckversicherungs AG	4.702324	12.03721
RWE GY Equity	RWE AG	5.576428	25.01387
SZG GY Equity	Salzgitter AG	0.51455	2.34341
SAP GY Equity	SAP AG	5.787464	51.4801
SIE GY Equity	Siemens AG	9.205364	50.05453
TKA GY Equity	ThyssenKrupp AG	1.427811	20.51034
VOW GY Equity	Volkswagen AG	5.018599	5.29206

Background of Products – EURO STOXX 50® Components

Ticker	Name	% Weight in the Index	Shares in the Last Price	
SX5E	DJ EURO STOXX			
AGN NA Equity	Aegon NV	0.419743	1406.358204	3.6
AI FP Equity	Air Liquide SA	1.429824	260.755662	66.14
ALV GY Equity	Allianz SE	2.726051	452.35	72.69
ALO FP Equity	Alstom SA	0.802273	199.236654	48.57
MT NA Equity	ArcelorMittal	1.357893	740.784911	22.11
G IM Equity	Assicurazioni Generali SpA	1.519229	1189.148088	15.41
CS FP Equity	AXA SA	1.674893	1669.617404	12.1
BBVA SQ Equity	Banco Bilbao Vizcaya Argentaria SA	2.554186	3747.969121	8.22
SAN SQ Equity	Banco Santander SA	4.665412	8155.605723	6.9
BAS GY Equity	BASF SE	2.068077	919.12	27.14
BAY GY Equity	Bayer AG	2.420671	764.34192	38.2
BNP FP Equity	BNP Paribas	2.878883	858.249399	40.46
CA FP Equity	Carrefour SA	1.474984	609.388398	29.195
SGO FP Equity	Cie de Saint-Gobain	0.869461	387.058022	27.095
ACA FP Equity	Credit Agricole SA	0.920836	1013.876373	10.955
DAI GY Equity	Daimler AG	1.969418	891.366005	26.65
DBK GY Equity	Deutsche Bank AG	1.973557	570.859015	41.7
DB1 GY Equity	Deutsche Boerse AG	0.834198	195	51.6
DTE GY Equity	Deutsche Telekom AG	2.416839	2979.217687	9.785
EOAN GY Equity	E.ON AG	3.499728	1821.1101	23.18
ENEL IM Equity	Enel SpA	1.360846	4192.686257	3.915
ENI IM Equity	ENI SpA	3.024386	2436.86034	14.97
FORB BB Equity	Fortis	0.295923	2189.809616	1.63
FTE FP Equity	France Telecom SA	2.684359	1899.585919	17.045
GS7 FP Equity	GDF Suez	2.694945	1293.004281	25.14

Background of Products – EURO STOXX 50® Components

BN FP Equity	Groupe Danone	1.455956	477.476332	36.78
IBE SQ Equity	Iberdrola SA	1.773358	3656.417922	5.85
INGA NA Equity	ING Groep NV	1.155074	2079.458525	6.7
ISP IM Equity	Intesa Sanpaolo SpA	1.887187	9645.356547	2.36
PHIA NA Equity	Koninklijke Philips Electronics NV	1.052878	972.411769	13.06
OR FP Equity	L'Oreal SA	1.038131	238.374749	52.53
MC FP Equity	LVMH Moet Hennessy Louis Vuitton SA	1.139419	257.611036	53.35
MUV2 GY Equity	Muenchener Rueckversicherungs AG	1.663036	196.083614	102.3
NOK1V FH Equity	Nokia OYJ	3.598317	3800.568648	11.42
RNO FP Equity	Renault SA	0.398462	199.427489	24.1
REP SQ Equity	Repsol YPF SA	0.950375	791.119524	14.49
RWE GY Equity	RWE AG	1.998521	412.914204	58.38
SAN FP Equity	Sanofi-Aventis SA	3.628739	1034.494159	42.31
SAP GY Equity	SAP AG	2.132838	873.846728	29.44
SU FP Equity	Schneider Electric SA	1.117537	247.400312	54.485
SIE GY Equity	Siemens AG	3.260704	816.657916	48.16
GLE FP Equity	Societe Generale	1.901753	580.727244	39.5
TIT IM Equity	Telecom Italia SpA	0.839064	10222.92698	0.99
TEF SQ Equity	Telefonica SA	5.28581	4102.756935	15.54
FP FP Equity	Total SA	6.321046	2101.536814	36.28
UCG IM Equity	UniCredit SpA	1.926388	12676.41845	1.833
UNA NA Equity	Unilever NV	1.900215	1552.857405	14.76
DG FP Equity	Vinci SA	1.329653	493.632532	32.49
VIV FP Equity	Vivendi	1.939626	1169.777535	20
VOW GY Equity	Volkswagen AG	1.769299	85.934933	248.34

Overlapping Stocks Between DAX® and EURO STOXX 50®

ALV GY Equity

BAS GY Equity

BAY GY Equity

DAI GY Equity

DBK GY Equity

DB1 GY Equity

DTE GY Equity

EOAN GY Equity

MUV2 GY Equity

RWE GY Equity

SAP GY Equity

SIE GY Equity

VOW GY Equity

Allianz SE

BASF SE

Bayer AG

Daimler AG

Deutsche Bank AG

Deutsche Boerse AG

Deutsche Telekom AG

E.ON AG

Muenchener Rueckversicherungs AG

RWE AG

SAP AG

Siemens AG

Volkswagen AG

Create, Trade, and Manage Spreads

Dual Factor and Multi-Factor Spreads

- Dual Factor Spread
 - Comprised of two legs
 - Long FESX / Short FDAX
- Multi-Factor Spread
 - Comprised of three or more legs
 - Long ES, Short FESX and Short FDAX

Create, Trade, and Manage Spreads

Walk through process of building a spread

- Independent Leg/Dependent Leg
- Identify Liquid Leg/illiquid Leg
- Equalize/Normalize the Spread
- Determine Contract Ratios

Identifying the Independent/Dependent Legs

Independent (Primary) Leg (FESX)

- Price of implied spread is based on this leg
- When buying spread, going long this leg
- When selling spread, going short this leg

Dependent (Secondary) Leg (FDAX)

- When buying the spread, going short this leg
- When selling the spread, going long this leg

Identify illiquid/Liquid Legs of Spread

Intermarket spreads - time of day is key

- Follow pools of liquidity and volatility around the globe
- 4 AM Eastern Time, more liquidity in Eurex (4x volume in FESX vs. ES)
- 2 PM Eastern Time, more liquidity in US Exchanges

Key Liquidity Hours

- 3 AM ET – 5 AM – FESX 4x's the volume as ES
- 9:30 AM ET – 11:30 AM – FESX 2x's - ES 2x's FESX

Intramarket spreads (all Eurex products)

- Should use more illiquid leg to work order
- E.g. FESX/FDAX – FESX more liquid leg / FDAX is illiquid leg

Equalize or Normalize the Spread

Quantifying the relationship between two products to create synthetic value

- Proper normalization allows for trader to accurately assess the relative strength between the independent and dependant legs
- Normalization ratios are input into spread trading software to chart relationship

Normalization Factors

Normalizing, why?

- Cohesion / relationship
- Replication

Normalization Factors

- Tick Value
- Notional Value
- Base Currency
- Historical Volatility
- Historical Correlation
 - 5 Day
 - 22 Day

FESX – FDAX 60 Min



Chart of Spread – FESX-FDAX



Source: CQG Inc. © 2010 All rights reserved worldwide. <http://www.cqg.com>

Sat May 01 2010 17:58:24

Contract Ratios

Lead Leg	ES	FDAX	FESX	NQ
FDAX	1/3	N/A	1/5	1/5
ES	N/A	3/1	3/4	3/4
FESX	4/3	9/2	N/A	1/1

Structural Metrics Unique to Implied Spread Trading

Factors

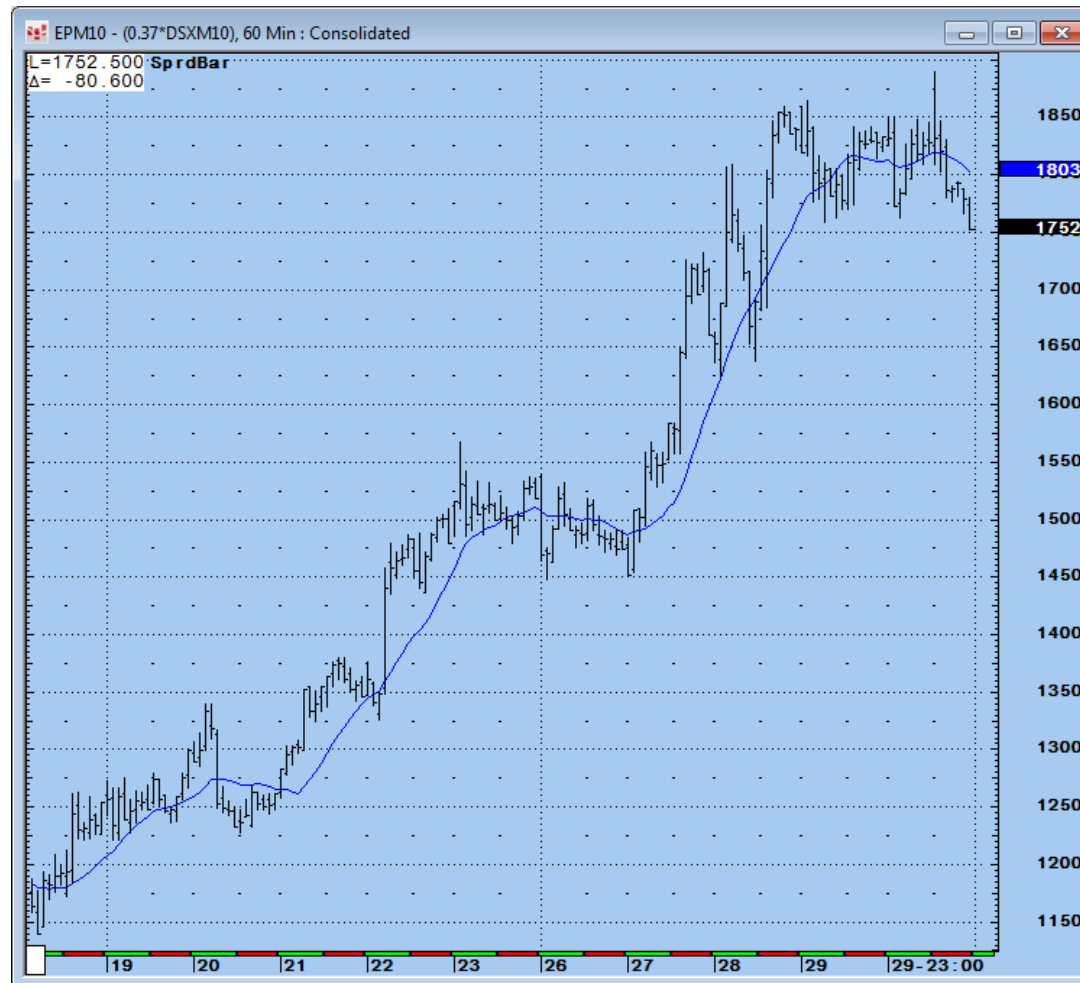
- Liquidity
 - Deeper markets make multiple leg quoting potentially more beneficial as queue preference materially impacts performance of active trading
- Volatility
 - More volatile the market, greater risk for mishedging

Alpha Generating Spread Strategies

Eurex vs. Eurex and Non-Eurex vs. Eurex Spreads

- FESX vs. FDAX
- ES vs. FESX

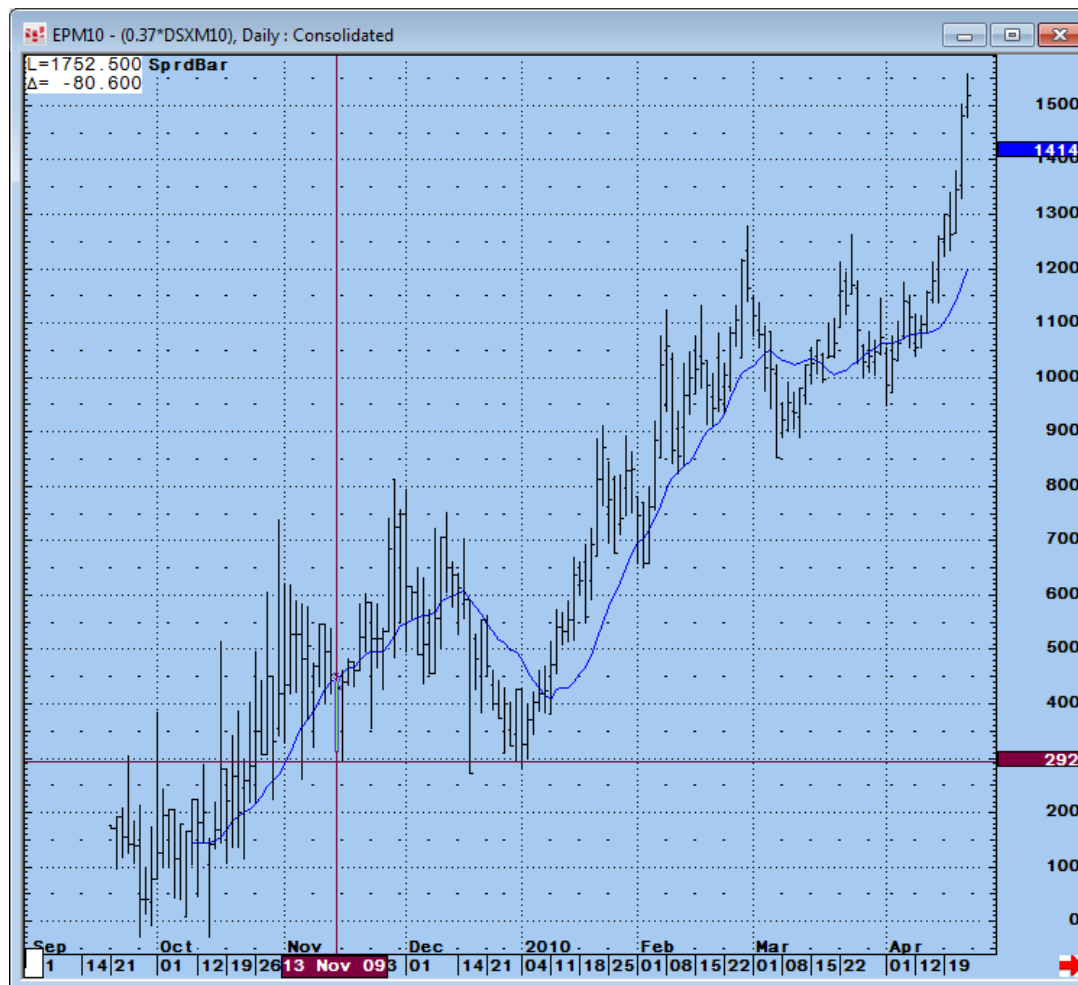
Spread Examples – ES vs. FESX



Source: CQG Inc. © 2010 All rights reserved worldwide. <http://www.cqg.com>

Sat May 01 2010 17:37:02

Spread Examples – ES vs. FESX



Source: CQG Inc. © 2010 All rights reserved worldwide. <http://www.cqg.com>

Sat May 01 2010 17:42:30

Contact Information

John Netto

- info@osoktrading.com
- www.osoktrading.com
- Consulting, boutique brokerage services, sell-side / buy-side conferences, high frequency trading, trader education

Real Time Analysis

Technicals – Complimentary Markets

- Be Cognizant of Constituents
- Identify Sectors Under / Out Performing
- What markets are in the news
- Currencies
 - EURUSD
 - GBPUSD
 - EURJPY
- Be aware of Constituents in the Commodity Industry
 - Oil
 - Gold