



## **Bats Europe Market Data and Indices**

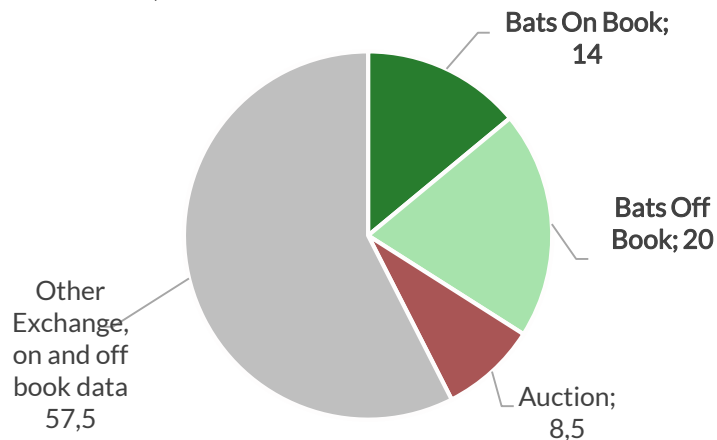
## Bats Europe – #1 Pan-European Equities Exchange

- ◆ Largest stock exchange in Europe by volume and value traded
  - ◆ ~24% market share,
  - ◆ ADN €10 - €12 Billion,
- ◆ 15 major European markets on one platform
- ◆ Operates Europe's biggest trade reporting facility
- ◆ Regulated as an RIE/RM by the UK Financial Conduct Authority (FCA)



## Market Data – One agreement = 1/3 of Europe’s data

- ◆ **Largest on-book European Exchange – 24%**
  - ◆ Covers 15 major European markets and 5,323 on-book securities
  - ◆ Covers large, mid and an increasing number of small cap securities
- ◆ **Largest off-book European Exchange – approximately 65%**
  - ◆ Complete MIFID list of securities, covering more than 12,000 off-book securities
- ◆ **Two in every five trades** (either on-book or OTC) in Europe hit Bats’ systems



Source: Liquidmetrix April '17

## Bats Europe – On-book trading

- ◆ Market share remained strong across European indices (excluding auctions)
  - ◆ FTSE 100 – 33.3%
  - ◆ CAC 40 – 29.1%
  - ◆ **DAX 30 – 28.2%**
  - ◆ MIB – 22.5%
  
- ◆ Liquidmetrix – independent source

Index	Market Share		Average Spread at Touch		Effective Spread : €5,000 Order		Time at or Tied at EBBO		Time Tied at EBBO	
	(%)	(%)	(Bps)	(Bps)	(Bps)	(Bps)	(%)	(%)	(%)	(%)
UKX 100	27.0	1.1	4.82	0.10	5.10	0.11	84.1	0.7	75.7	1.6
CAC 40	24.1	0.6	3.63	0.03	3.80	0.03	88.8	0.6	61.9	2.6
DAX	23.1	0.8	3.96	0.06	4.10	0.05	80.4	0.4	70.4	0.2
SMI	24.8	0.6	7.13	0.02	7.20	0.03	91.1	0.7	86.2	0.8
MIB	19.9	3.7	9.97	0.62	10.47	0.70	70.4	5.0	60.5	4.3
AEX	24.4	0.0	3.68	0.06	3.87	0.06	88.2	0.4	50.4	0.6
IBEX 35	26.0	0.8	5.25	0.07	5.61	0.06	74.1	0.8	59.7	0.6
OMXS 30	27.6	0.4	7.36	0.13	7.56	0.13	85.4	1.4	80.9	1.5
OMXC 20	25.9	0.5	6.98	0.57	7.29	0.53	86.2	1.9	80.1	2.4
OMXH 25	29.7	1.3	6.86	0.03	7.34	0.04	75.3	1.0	64.6	0.4
OBX	26.6	1.4	10.13	0.10	10.99	0.06	67.1	1.4	56.9	1.0

Changes shown in red indicate a negative monthly change, changes in green indicate a positive monthly change, changes in black indicate no change.

Source: Liquidmetrix February '17

## Bats Europe – Trading landscape in Germany

- ◆ Bats on book market share in Germany was 28.2% (excluding auctions) - this includes lit and dark trades

	Bats		Xetra		Next Largest Venue	
Market Share (%)	23.1	0.8	64.3	0.8	12.5	0.0
Market Share(excluding auctions) (%)	28.2	1.1	56.5	1.2	15.3	0.1
Average Spread at Touch (Bps)	3.96	0.06	3.85	0.05	4.74	0.10
Effective Spread : €5,000 Order (Bps)	4.10	0.05	3.93	0.05	4.89	0.11
Time at or Tied at EBBO (%)	80.4	0.4	79.3	1.5	61.2	2.6
Time Tied at EBBO (%)	70.4	0.2	69.9	2.2	58.4	2.6

### By % Market Share

Bats Ranked 1st in 0 symbols across all venues

Market Rank	Instrument	Market Share (%)	Monthly Change	Dark Book (%)
2	BEI	36.7	1.5	6.6
2	FME	34.4	1.1	11.6
2	SAP	33.8	1.8	10.2
2	HEI	33.6	1.5	11.6
2	BMW	32.4	0.2	7.9

### By Time At or Tied at EBBO

Bats Ranked 1st in 20 symbols across all venues

Market Rank	Instrument	At or Equal EBBO (% time)	Monthly Change
1	MRK	95.2	0.9
3	SIE	93.9	0.0
1	HEN3	93.5	0.4
2	BAYN	92.7	2.8
1	DTE	91.7	0.9

## Display - real time

### Display

- ◆ Tiered pricing model
- ◆ Offer netting to a per user level
- ◆ Simple reporting process, via an online web gui

Display Fees	Monthly Fee	
Direct Model - Per End User Fee		
Number of Internal End Users	Level 1	Level 2
1-5	£ 60	£150
6-20	£ 240	£580
21-50	£ 580	£1,400
51-100	£ 1,200	£2,400
101-200	£ 2,400	£4,700
201+	£ 4,700	£9,400

# Distribution Licence

## Real time

### Pan European

Level 1 - £17,000 per annum

Level 2 - £34,500 per annum

### Unitised per subset (Germany and Austria)

Level 1 - £5,700 per annum

Level 2 - £11,500 per annum

## Reporting

### Professional

Level 1 - £23 per month

Level 2 - £52 per month

### Non Professional

No End User Fees

## Delayed (15 minute)

### Pan European

£5,000



**Bats**  
a CBOE company

**Bats Europe  
Benchmark Equity Indices**



## The European Index Landscape - Current



- ◆ Indices have become **too expensive**
- ◆ **Too complex** – contracts are complicated, indices are difficult to differentiate
- ◆ Indices not yet regulated and there is **no price transparency**

Customers have asked Bats to provide Choice and Competition – a “**better**” product:

- ✓ **Real-Time**
- ✓ **Simplified Licensing**
- ✓ **Long Term Commitment to Competitive Fees**
- ✓ **Consistent Index Methodology**
- ✓ **Transparency**
- ✓ **Coverage**

## The Product – Key Components

- ◆ **Straightforward, transparent licence** – rights extend to all affiliates, customers, trustees, custodians and survive termination
- ◆ **Valued in real-time using Bats data**
- ◆ **Highly competitive and transparent fees** that include caps & **multi year discounts**
- ◆ Consistently applied index Rules & Methodology - robust, straightforward
- ◆ Inclusive governance structure – comply with **IOSCO Standards** and **Benchmark Administrator regulations**
- ◆ **All major equity markets to be covered**
- ◆ Significant licensing and trading synergies with Bats low cost real-time Market Data

# Bats Indices

## Availability

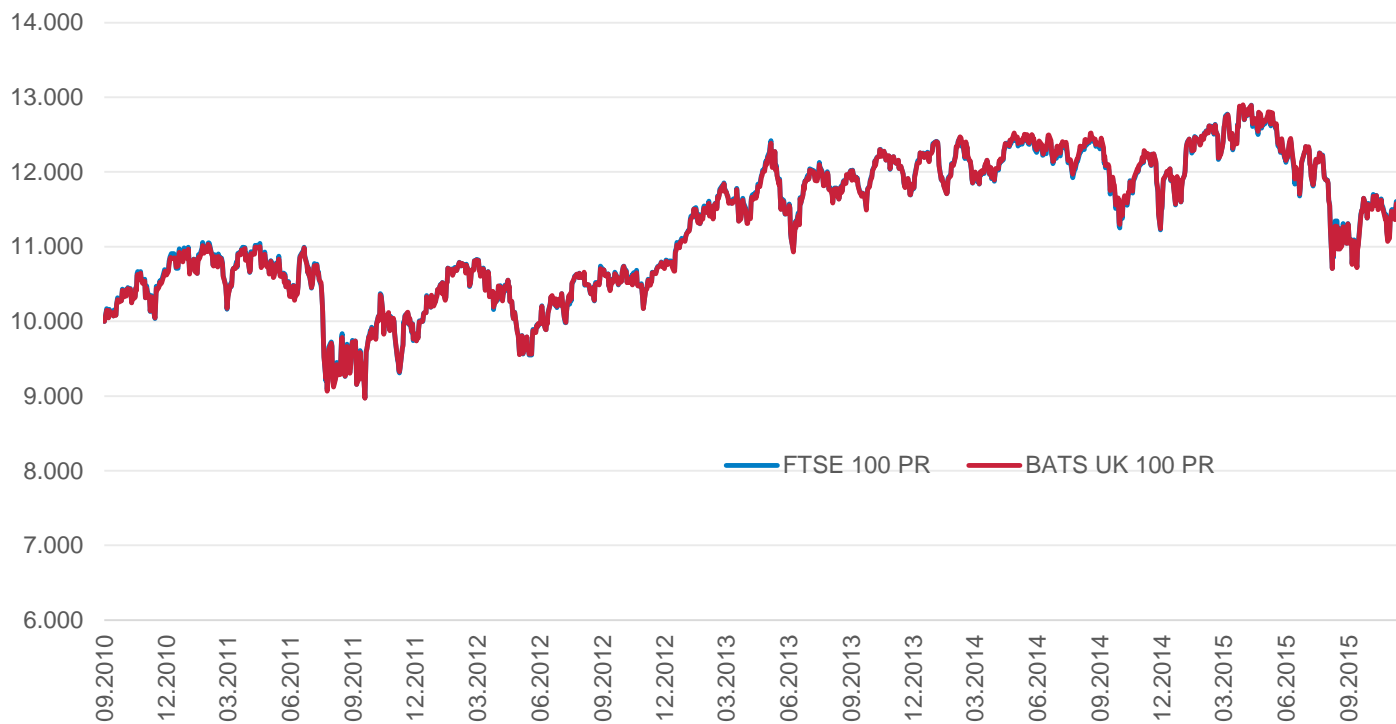
- ◆ Readily available via vendors, media – values and constituents
- ◆ Free via vendor terminal products and Bats website

- |                             |              |               |
|-----------------------------|--------------|---------------|
| • Bloomberg                 | • Thomson    | • Morningstar |
| • Financial<br>Express      | • Reuters    | • NETbuilder  |
| • FIS (formerly<br>SunGard) | • IDC        | • RIMES       |
| • Factset                   | • IRESS      | • WFG         |
|                             | • Infront    | • Polarlake   |
|                             | • IHS Markit |               |

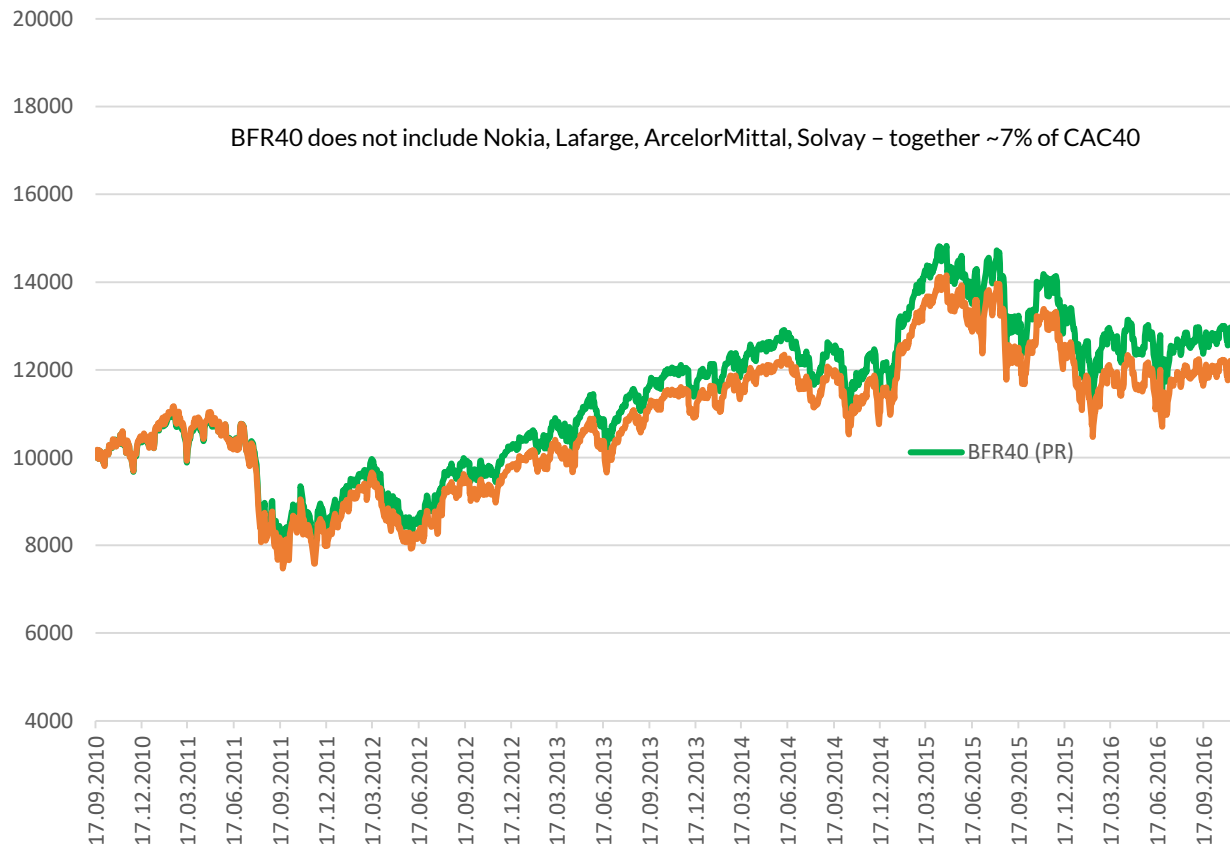
- ◆ Bats Indices Website – [www.indices.batstrading.co.uk](http://www.indices.batstrading.co.uk)
  - ◆ Live data & charts – x18 indices
  - ◆ >6 year History
  - ◆ Constituent Data
  - ◆ Rules and Methodology
  - ◆ Licences, Policy & Price List
  - ◆ Marketing Collateral



## BATS UK 100 v FTSE 100 - Value Performance



# Bats France 40 v CAC 40



# Bats Germany 30 v DAX 30

