ELECTRONIC BOND QUOTATION AND EXECUTION PLATFORM CORTEX **SECONDARY**



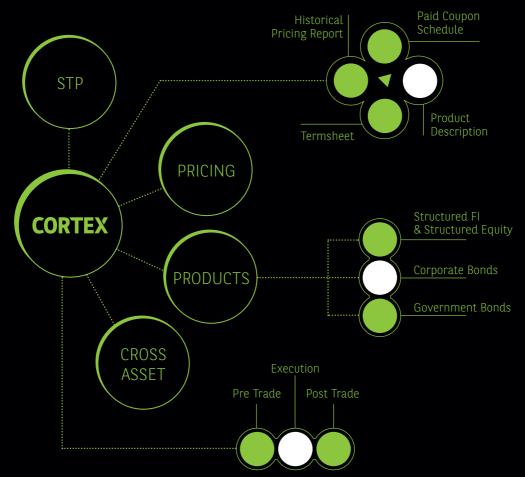
The bank for a changing world

CORTEX Secondary is a state-of-the-art Electronic Bond Quotation and Execution Platform developed and designed by BNP Paribas.

CORTEX Secondary provides our clients with real-time indicative pricing and seamless execution across an extensive range of fixed income cash and derivative bond products.

Combining intuitive technology and access to the bank's deep pools of liquidity, CORTEX Secondary offers you the flexibility and the complete confidence to securely click and trade real-time Secondary market prices from the convenience of a single platform.

CORTEX Secondary has been designed to offer you an integrated trading environment that is simple to use and allows you the freedom to focus on taking advantage of every trading opportunity for you and your clients.



INTUITIVE DESIGN

- ▶ Intuitive to set up and simple to use
- Comprehensive product inventory (Search by ISIN, maturity, strategy currency, etc.)
- Enables you to view all intraday trading activity with fully customisable historical trading blotters
- ► Easily create your own baskets

REPORTED TO THE PROPERTY OF TH																		
Structured FI	Structured Equity Bonds	Primary Grey Hilds C	horas Blotter (A	ons Caroect	Seed (SPF	P Fortic)	Orden	Oktor										
Type: At	to be beautiful Constitution	dayen briedet 000																
E3 287575	X51864060696	HERCEDES-BENZ AV 2.75		51473463		10	15.300	100.800	152,8600	901	11-17-2119	24-12-2414	1415:1412-12-2519	Limit Not				G89485105148
201006	86920329039			10473469		0	10,300	182,500		911	12-12-2019	20-12-2019	14-05/12 12-12-2019	OFIN				GEBHBNUDD/02
E 187504	1/61794640902			89479485		/50	10,300	182.888	208.494	901	18-13-2019	20-12-2019	14942913-13-2918	Limit Not				68990000
[]10000	561000351090			10479469		50	3	145.208		M/Y	15-15-5144	31-12-3119	135365 12-12-2016	OFIN				GENEVICO15
[1] 294085	107/04/279/28			89479460		200	120,000	183,888		SUL.	05-05-2019	20-12-2019	12:40:04 12:12:00:09	OFFI				GENEAUCOUR GENEAUCOUR
29439	MEDICAL PROPERTY.	COM LOS GOCTOS		DECHE		M.	20,300	117,000	126,600	807	12-12-2019	11-12-2019	12 02 12 12 12 0019	Limit for				OSSMBNUCOSC
294009	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			104700M		200	200,300	100,8400	257.621	994	11-12-2019	20-12-2019	12 10 20 12 12 12 1010	CAME THE				oravenucous
204005	159035909790	1580390990		20472467	1000	70	25.700	185,798	253,2500		10-10-2015	20-02-2019	12 00 24 12 12 25 15	Limit Not	leaded to			689-8505040
291665	USIGNOTAGES	USIGNOTINON HISANA 3.75 GLARICUO RIGGS		DEDHE	HCDNI2 I	750	75.300	95.400	361.861	914	29-04-2019	30-12-3019	12/02/14 12:12:0008	Limit Not	texted tin	nt.		GRIMBIUC002
E3 202074	PR0000477325			04040	MACOUS I	100	10,000	162,3366	263,7900	981	12-12-2019	20-12-2019	11.46/31/32-12-25/8	Limit Not	texted or	ne		GEBHBRUSS133
□ 36679	6402903974			1047467		58	276	358,3606	339.306	en e	14:10-2019	36-12-3619	11/6/41/0/12/019	Herusi				689890000
294265	M0013047912			0042H00		NA.	100,000	99.8400	105.375	gna.	2742-2014	26-10-2614	11-08-94 12-12-0019	Limit Not				GENENICO SE
[1] 209650 [1] 309660	USBORNES			1045HB		40	5,000	95.000	N1.8600	904	80-52-2009 10-10-2019	20-02-2019	11:00:14:12-12-20:09	Link for				GENEROSOSS GENEROSOSS
[1] 204844	VERNINGORS MAJA 2 SE EMPLECIO VERNINGORS VERD 2 SE EMPLECIO				/10 /10	10,300	183,200	152,3400 153,3400	gni		26-12-2019	11:50:14:12:12:2019	Limit Not					
El Mari	USCHENNESS VOD 136 SMERCHES USP VALUE AND BROWN & 175 VERANTITI BEES		DATAMET		50	10,000	107.000	101.5400	907	18-19-2019	10-12-2019 10-12-2019	11.00.04 (2-12-0008	Limit Nati				OFFINANCOSCI	
299429		AUDITORIO VODIPONE GROUP 3.28 1206/CR02 HTM		B45465		W0	20,300	182,666	104,9100	904	12-0+2019	11-12-2019	11 55 S4 S5	Limit Not				GENERALDO SO
[2] 212889	U0340790999			04040		-00	20,200	101,700	153,5200	994	12-12-2019	20-12-2019	10:00:00 12:12:00:00	Land No.				089/85/2012
200000	1604679079	ORF F 5.290 120846		10470440000000 USD		150	13.300	95,000	95,7300	901	10-12-2019	20-02-2019	10/29/24 12:12:0919	Cine No.				02340400000
[1] 103064	861002611896	VGP NV 3.5 19944/3034		1047344880USS2 8UB		N/A	5.000	185.200		SILL	12-12-2019	24-12-2019	09-58-04-12-12-2019	OFIN	ne p	nit.		GEBHBNUES/92
207599	USGOSCOTSPOS			89459467652865 USD		100	100,000	182,666	311.4300	9/7	09-13-2019	20-02-2019	08/07/14 12:42:0009	CANE NO.		nit.		GERHENUCOUR
III 308875		XSSCREENING VOLKSHAGEN FIN 2.5 (\$NOVS)SS ENTY			10479460042803 NOV		40,300	55.8800		90.1	25-13-2511	70-10-2019	98-30-33-12-12-2519	OFIN				0894950550
269477	XSSECHMMO Autocalobile Coupon Plus Deep Value World 20060		seconsinicatio an			14,300	187,666	106.1700	BIY	96-12-2019	26-12-2619	98-07-23 12-12-2019	Great Net				GENERACOIC	
208957		M000020908 899 6.25 290072049 M000007525 892 9425845 6.56 00342049			00470467274000 USD 004704600747000 USD		12,000 6,000	102.5100	204.129	901	18-10-2019	20-12-2019	08/04/43 13:13:0009	Limit Not				GENERALED (S)
1 3486F	PROCESTICS BISP PARENT S.S. DOWNSOME PROCESTICS BISP PARENT S.S. DOWNSOME		0479468074700 USD			1,000	102,000	963.7900 163.7900		22-12-2019	20-12-2019	989445 (2-12-20) (8 98-9445 (2-12-20) (8	Limit Not				GENERALIDAD GENERALIDAD	
204079	X00004TTLS SIP AMOSAS KIS DOUGO++ X0000TSHEE SIPP SIV SUR CERT SISTOR RS		DATAMENTAL USS			1,000	185,888	205.262	BIT	07-09-2019	20-02-2019	06:04:40 12:12:0019	Carel No.				GENEAUDOCO	
FT 105MS	X51240501514		MOVEMENT FOR TO SPREMO 2006.3		DETHETROOM BE		1,000	102.995	352,694		18-19-2019	31-12-3119	06:00:38 75-75-5019	Limit Not				GRAND-CO-CO
Street Proper	रात क्लिको क्लि																	
		0 / Counterparty / Requester / Smilegy / Source					Timedana Y			- Dearch								
Potud	Report Status - Till Femaled - BV		710x	Call timourt	COLUMNS			12-12-2018	Mariag	. 65	0.800	Asset Core Eastern	599/00	Chiroco 6.69	Carr CC in Euro	100	100	7604 D 26472
SNP PARSSAS F.	Constant D.C		205.25	11,807,58	GESANUS?			10-10-0119			0.500	Epitie		5.00	5.00	-	-	26672
9927 Clinitis C.	Decided Dr		85.67	5,855,80	POTSUI			12-12-2019	- 1	- 1	0.500	Sertra	- 1	5.00	100	- 1	- 1	79373
BIP PARTIES F.	Executed 80	25,000	96.81	IA382.88	POTEUR			12-12-0019			0.300	Equitm		6.00	6.00			261120
BNF 18V Autoca	Executed 80		104.25	8,340.88	GESANUA			12-13-2019			0.500	Equities		6.00	6.00			761569
ROWN, BY CHILL	frecited 90	100.00	205.00	100,765.88	GENERAL			12-D2009	5,3900		0.3500	CHR	1,500	200.00	143.95	_,		HISH
EIB SLSEZNAP	Femaled D.		311.40 365.60	94,896.60	GENERALIS			12-12-2019	6.3900	-	0.300	Equites Code	8,3988	340.00	21.75			761947 761965
HERCEDES-BEN	Executed SC	V 40,000 12,000	201.62	10,309,89	059-64-0			12-12-2519	6.2900	- 1	0.3600	Cwit	1,700	77.00	25.75	- 1	- 1	761565
DIF PARTIES F.	Executed 50		201.40	20,000,00	FOFSUI			12-12-0019	2		0,2200	Sortes	2	5.00	5.00	-		792394
BFSF Capped C.	Canadial		104.15	22,813.66	rorsus			12-12-2019	- 1		0.500	Equities		5.00	6.00			261863
BNPOF FOX TO S	Executed BU		301.47	50,707.00	(dayon)			12-13-2119		6.500	0.500	Stave No		501.00	500.00	- 1		76562
DIP PARSES F.	Executed DV		262.13	14,399.01	003404/01			12-12-0119	6.2900		0.3000	CHR	9.2900	49.00	49.00			26161
MICROH MITC	femaled 80		201.48	185,05.74	CERNENCO			12-12-2019	6.1900	- 1	0.1500	Cell	0.000	225.00	225.00	- 1		761360
54900 54700 8927 54623 50	Executed 50:	3,000	203.62	3,104.60	FORSUS			12-12-2119	0.0000	- :	0.1750	Colfe	1.000	5.00	6.00	-	- :	761559
SUPP SA Creen	Direction BV		107.11	5,105,50	FORSE			12-12-2019	- 1	- 1	0.3200	Easter	- 1	5.00	1.00	- 1	- 1	76104
OLF RECORDS 7	Executed 80		305.94	1256.00	GENERALE			112-12-2019	6.3900		0.3620	Code	8,3908	24.66	25.12			26167
BPDF Chaped Cl.	Executed 80		201.36	1,813.80	FORSUS		13.40.15	12-13-2019			0.500	Equities	0	5.00	6.00			762894
PROFESSION L.	Consider 10		303.94	\$375.N	CERHINO			12-12-0009	6.2900			Codif	0.2900	6.00	0.00			762340
8F0F Suttends	Executed 80		90.23	6,0030	POPEU			15-15-5119			0.500	tores		6.00	6.00			261885
UCR00 5.125 0	Executed BU	4,000	126.29	48,129.46	(63HBPUE)	592	13.46,0	12-12-0119	6.2900		0.3600	Oult	9,3999	140.50	143.50			76254
* 100							_			_	1,411							

Fully Compliant with MiFID II Regulation

TRANSPARENCY

- ► Transparent execution margin
- ► Full transparency and documentation on price formation process (Fairness of Price)
- ▶ BNP Paribas and BNP Paribas Fortis have opted in as 'Systematic Internaliser'
 - Pre & post trade transparency
- ▶ Data analytics and trade alerts

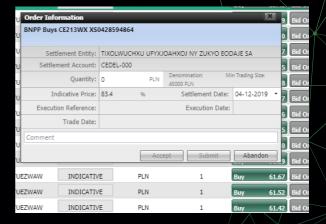


UNIQUE OPEN ARCHITECTURE MODEL

- No Market Making activity we source the best available price at all times from the street
- ▶ Access to 65+ OTC counterparties in addition to the public trading venues like Euronext

EXECUTION MODEL

- Algorithmic Pricing ('Prevalent Price') for lower sized trades (market consistent indications)
- ► Full integration possible in order to automate smaller sized flows via Straight-Through-Processing
- ▶ White labelling or through web-interface
- Manual sourcing of Best Available Price for larger sized trades (c/v >500,000 EUR)
- ▶ BNP Paribas or BNP Paribas Fortis acting as Principal
- Only one KYC required, enabling access to over 65 liquidity providers



EXTENSIVE PRODUCT COVERAGE

- ▶ Fully customisable product basket management features are available
- ► Click and Trade 16,000+ cash fixed income products (corporate/ governments bonds) as well as 1500+ structured fixed income products
- ▶ Platform offers an efficient way to price and execute the sell-back of structured notes

PRIMARY CONNECTIVITY OPTIONS TAILORED TO YOUR SPECIFIC NEEDS, PROVIDING OPTIMAL CLIENT SOLUTIONS



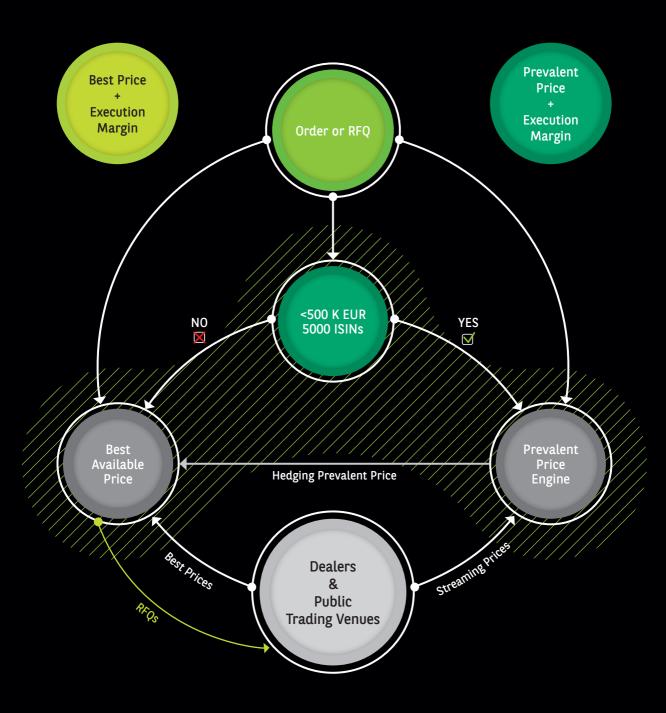
Direct Access

- Access Cortex directly via internet
- •• Receive a welcome email (with your credentials) and start trading the same day

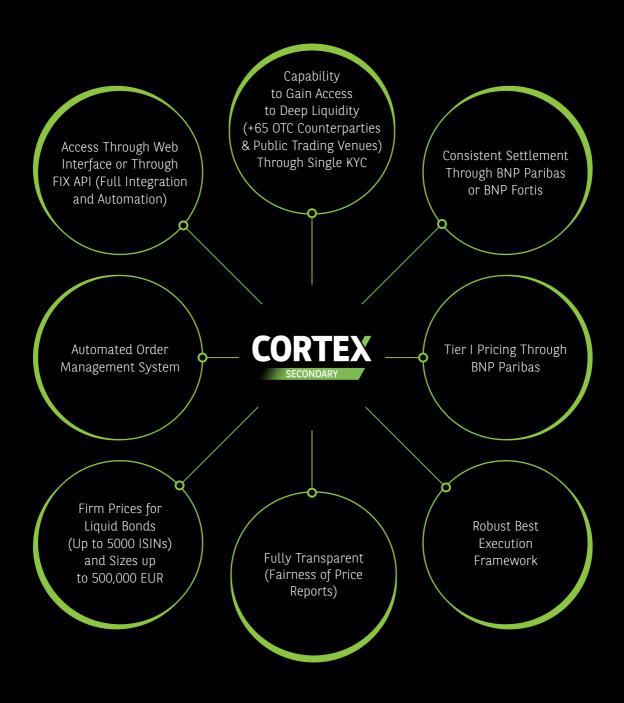


- Software intermediary allowing two applications to communicate with each other
- All Cortex functionalities and services remain identical
- •• Access Cortex through your own individual platform or via external providers

ELECTRONIC BOND EXECUTION PLATFORM: PRICING PROCESS



DISTINGUISHING VALUE



KEY CONTACTS

Pierre EECKMAN

Head of Institutional Credit Sales Belgium

Rue Royale 60-68, 1000 Brussels, Belgium

> + 32 (0) 2 565 66 79

≥ Pierre.Eeckman@bnpparibas.com

Charles GÖBEL

Electronic Channels & Solutions PCM

Rue Royale 60-68, 1000 Brussels, Belgium

\(\sigma + 32 (0) 2 565 60 49 \)

Charles.Gobel@bnpparibas.com

Geert RIMBAUT

Flow & Credit Sales PB&D

Rue Royale 60-68, 1000 Brussels, Belgium

+ 32 (0) 2 565 86 05

☐ Geert.Rimbaut@bnpparibas.com

Wim D'HEERE

Flow & Credit Sales PB&D

Rue Royale 60-68, 1000 Brussels, Belgium

> + 32 (0) 2 566 86 11

Wim.Dheere@bnpparibas.com

Rita PLAETE

Flow & Credit Sales PB&D

Rue Royale 60-68, 1000 Brussels, Belgium

\(\sigma + 32 (0) 2 565 86 31 \)

Rita.Plaete@bnpparibas.com

DISCLAIMER

Legal Notice: This document/communication may contain "Research" as defined under MiFID II unbundling rules; any such Research is intended either (i) for those firms who are in scope of the MiFID II unbundling rules and have signed up to a BNP Paribas Global Markets Research package, or (ii) for firms that are out of scope of the MiFID II unbundling rules and therefore are not required to pay for Research under MiFID II. Please note that it is your firm's responsibility to ensure that you do not view or use any Research in this document if your firm has not signed up to a BNP Paribas Global Markets Research package, unless your firm is out of scope of the MiFID II unbundling rules. This document may also be regarded as a minor non-monetary benefit (MNMB) and it is your firm's responsibility to consider its own regulatory obligations in relation to inducements and accepting MNMBs.

This document is CONFIDENTIAL AND FOR DISCUSSION PURPOSES ONLY; it constitutes a marketing communication and has been prepared by a Sales and Marketing function within BNP Paribas and/or its subsidiaries or affiliates (collectively "we" or "BNP Paribas"). As a confidential document it is submitted to selected recipients only and it may not be made available (in whole or in part) to any other person without BNP Paribas' written consent.

This document is not a recommendation to engage in any action, does not constitute or form any part of any offer to sell or issue and is not a solicitation of any offer to purchase any financial instrument, nor shall it or any part of it nor the fact of its distribution form the basis of, or be relied on in connection with, any contract or investment decision. To the extent that any transaction is subsequently entered into between the recipient and BNP Paribas, such transaction will be entered into upon such terms as may be agreed by the parties in the relevant documentation.

The information contained in this document has been obtained from sources believed to be reliable, but there is no guarantee of the accuracy, completeness or suitability for any particular purpose of such information or that such information has been independently verified by BNP Paribas or by any person. None of BNP Paribas, its members, directors, officers, agents or employees accepts any responsibility or liability whatsoever or makes any representation or warranty, express or implied, as to the accuracy or completeness of the information, or any opinions based thereon, contained in this document and it should not be used in place of professional advice. Additional information may be provided on request, at our discretion. Any scenarios, assumptions, historical or simulated performances, indicative prices or examples of potential transactions or returns are included for illustrative purposes only. Past performance is not indicative of future results. Investors may get back less than they invested. BNP Paribas gives no assurance that any favourable scenarios described are likely to happen, that it is possible to trade on the terms described herein or that any potential returns illustrated can be achieved. This document is current as at the date of its production and BNP Paribas is under no obligation to update or keep current the information herein. In providing this document, BNP Paribas offers no investment, financial, legal, tax or any other type of advice to, and has no fiduciary duty towards, recipients. Certain strategies and/or potential transactions discussed in this document may involve the use of derivatives which may be complex in nature and may give rise to substantial risks, including the risk of total or partial loss of any investment or losses without limitation and which should only be undertaken by those with the requisite knowledge and experience. BNP Paribas makes no representation and gives no warranty as to the results to be obtained from any investment, strategy or transaction, or as to

As an investment bank with a wide range of activities BNP Paribas may face conflicts of interest and you should be aware that BNP Paribas and/or any of its affiliates may be long or short, for their own account or as agent, in investments, transactions or strategies referred to in this document or related products before the material is published to clients and that it may engage in transactions in a manner inconsistent with the views expressed in this document, either for their own account or for the account of their clients. Additionally, BNP Paribas may have acted as an investment banker or may have provided significant advice or investment services to companies or in relation to investments mentioned in this document. The information in this document is not intended for distribution to, or use by, any person or entity in any jurisdiction where (a) the distribution or use of such information would be contrary to law or regulations, or (b) BNP Paribas or a BNP Paribas affiliate would become subject to new or additional legal or regulatory requirements. Persons in possession of this document should inform themselves about possible legal restrictions and observe them accordingly.

This document is intended for, and is directed at, (a) Professional Clients and Eligible Counterparties as defined by the European Union Markets in Financial Instruments Directive ("MiFID"), and (b) where relevant, persons who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, and at other persons to whom it may lawfully be communicated (together "Relevant Persons"). Any investment or investment activity to which this document relates is available only to and will be engaged in only with Relevant Persons. Any person who is not a Relevant Person should not act or rely on this document or its content.

This document is being communicated by BNP Paribas London Branch, 10 Harewood Avenue, London NW1 6AA; tel: +44 (0)20 7595 2000; fax: +44 (0)20 7595 2555 (www.bnpparibas.com). Incorporated in France with Limited Liability. Registered Office: 16 boulevard des Italiens,75009 Paris, France. 662 042 449 RCS Paris. BNP Paribas London Branch is lead supervised by the European Central Bank (ECB) and the Autorité de Contrôle Prudentiel et de Résolution (ACPR). BNP Paribas London Branch is authorised by the ECB, the ACPR and the Prudential Regulation Authority and subject to limited regulation by the Financial Conduct Authority and Prudential Regulation Authority. Details about the extent of our authorisation and regulation by the Prudential Regulation Authority, and regulation by the Financial Conduct Authority are available from us on request. BNP Paribas London Branch is registered in England and Wales under no. FC13447. © BNP Paribas 2019. All rights reserved.

