

Derivative Instruments & Target Funds

Market Group	Security Type	Feeds Collection Time Pricing Primary Logic	Data Vendor Cross Validation					Data Vendor Cross Validation Tolerance	Δ Price & Δ Index Benchmarking Tolerance	Default Logic	Addl Default Logic	Manual Quotes In Case of Non Coverage From Selected Data Vendors
			Primary & Validation Source	Secondary & Validation Source	Third & Validation Source	Fourth & Validation Source	Fifth & Validation Source					
Derivative Instruments & Target Funds												
AMF	American Futures	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	5% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
BRF	Brazilian Futures	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	5% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
AMO	American Options	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	20% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
BRO	Brazilian Options	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	20% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
ASF	Asian Futures	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	5% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
AUF	Australian Futures	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	5% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
ASO	Asian Options	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	20% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
AUO	Australian Options	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	20% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
EUR	European Futures	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	5% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
EUO	European Options	Closure Market (D-1) Settlement	Bloomberg Settlement Price	n/a	n/a	n/a	n/a	Broker Statement	20% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
OTC	OTC Options	n/a	OTC Pricing RBC	n/a	n/a	n/a	n/a	Broker Statement	10% Price Tolerance Movement	Switch From Settlement Price to Previous Last Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
WRT	Warrant	Closure Market (D-1) Last Trade	Bloomberg Primary Exchange	Telekurs Primary Exchange	Reuters Primary Exchange	Bloomberg Contributor: Gold/GSSD Bid	n/a	0% Tolerance Between Data Vendors Prices	20%: For Prices Validated by at Least 2 Validation Sources 10%: For Non Validated Prices	Switch to Issuer Price / to Intrinsic Calculation	Switch to Issuer Price / to Intrinsic Calculation	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
FOF	Funds	12:30 AM CET LAST / NAV	Bloomberg	WM Daten	Telekurs	n/a	n/a	0% Tolerance Between Data Vendors Prices	10%: For Prices Validated by at Least 2 Validation Sources 5%: For Non Validated Prices	Switch From Last price to NAV	This Parameterization ensures Last Trade Price coverage for ETFs and Default Automatically on NAVs for other types of Target Funds	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
FTF	Funds with TAX	12:30 AM CET LAST / NAV	Bloomberg	WM Daten	Telekurs	n/a	n/a	0% Tolerance Between Data Vendors Prices	10%: For Prices Validated by at Least 2 Validation Sources 5%: For Non Validated Prices	Switch From Last price to NAV	Taxes will be as of D-2	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
HFF	Hedge Funds	Last available NAV at pricing cut off time	Bloomberg	WM Daten	Telekurs	n/a	n/a	0% Tolerance Between Data Vendors Prices	10%: For Prices Validated by at Least 2 Validation Sources 5%: For Non Validated Prices	Last NAV or Estimated available	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
DFF	Internal Funds	Last available NAV at pricing cut off time	DCS	n/a	n/a	n/a	n/a	n/a	5%: For Internal Funds	Switch From NAV to Last price	DCS Stands for "Internal Communication System: Tjs ensures to pick up NAV prices for Funds administered by RBC Internal IS	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes

Exchange Rates

		Feeds Collection Time Pricing Primary Logic	Data Vendor Cross Validation					Data Vendor Cross Validation Tolerance	Δ Price & Δ Index Benchmarking Tolerance	Default Logic	Addl Default Logic	Manual Quotes In Case of Non Coverage From Selected Data Vendors
			Primary & Validation Source	Secondary & Validation Source	Third & Validation Source	Fourth & Validation Source	Fifth & Validation Source					
Exchange Rates												
	Spot Rates	05:00 PM CET	Reuters/WMR from WMCO	Bloomberg	n/a	n/a	n/a	1% Tolerance Between Data Vendors Prices	n/a	n/a	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes
	Forward Points	05:00 PM CET	Reuters/WMR from WMCO	Bloomberg	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes

Market Group	Security Type	Feeds Collection Time Pricing Primary Logic	Data Vendor Cross Validation					Data Vendor Cross Validation Tolerance	Δ Price & Δ Index Benchmarking Tolerance	Default Logic	Addl Default Logic	Manual Quotes In Case of Non Coverage From Selected Data Vendors
			Primary & Validation Source	Secondary & Validation Source	Third & Validation Source	Fourth & Validation Source	Fifth & Validation Source					
BONDS / Fixed Incomes												
ABS	ABS or MBS bond	Closure Market (D-1) Mid	Interactive Data Evaluated Mid Price	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
AMB	American bond	Closure Market (D-1) Mid	Interactive Data Evaluated Mid Price	Bloomberg BGN Mid	Telekurs ICMA Mid	Telekurs MOT Ref	Telekurs Euro TLX Average	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
ASB	Asian bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Interactive Data Evaluated Mid Price	Telekurs Most Liquid Market Place Mid	Telekurs ICMA Mid	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
AUB	Australian Corporate Bonds	Closure Market (D-1) Mid	Bloomberg BGN Mid	Interactive Data Evaluated Mid Price	Telekurs Most Liquid Market Place Mid	Telekurs ICMA Mid	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
CAS	Asia Convertible bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Bloomberg Contributor: MSPX Mid Morgan Stanley	Telekurs Most Liquid Market Place Mid	Bloomberg Contributor: NMDP Mid Nomura	Bloomberg Contributor: WDRL Mid Warburg Dillon	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
CEU	EU Convertible bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Bloomberg Contributor: Gold Mid	Telekurs Most Liquid Market Place Mid	Bloomberg Contributor: Exane Mid	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
CPC	Convertible (Piece)	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
CUS	US Convertible bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Bloomberg Contributor: Gold Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
CAU	Australian Convertible Bonds	Closure Market (D-1) Mid	Bloomberg BGN Mid	Bloomberg Contributor: Gold Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
DMB	Danish Mortgage Bonds	Closure Market (D-1) Mid	Callable Matrix Price	n/a	n/a	n/a	n/a	Source consistency approach	2.5% Price Tolerance Movement	n/a	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
EMB	Emerging market bond	Closure Market (D-1) Mid	Interactive Data Evaluated Mid Price	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	Telekurs ICMA Mid	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
EUB	European bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Interactive Data Evaluated Mid Price	Telekurs ICMA Mid	Telekurs MOT Ref	Telekurs Euro TLX Average	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GAS	Asian Government bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	Telekurs ICMA Mid	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GAU	Australian Government Local Bonds	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	Telekurs ICMA Mid	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GCA	Canadian Govt Bonds	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers

BONDS / Fixed Inco

GEM	Emerging Government bond	Closure Market (D-1) Mid	Interactive Data Evaluated Mid Price	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	Telekurs ICMA Mid	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GEU	EU Government bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	Telekurs ICMA Mid	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GGE	German Govt Bonds	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GIT	Italian Govt Bonds	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GJP	Japan Govt Bonds	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GSW	Sweden Govt Bonds	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GUK	UK Government bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GUS	US Government bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	Interactive Data Evaluated Mid Price	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
GBZ	Brazilian Government Local Bonds	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
HEU	High yield EU bond	Closure Market (D-1) Mid	Interactive Data Evaluated Mid Price	Bloomberg BGN Mid	Telekurs ICMA Mid	Telekurs MOT Ref	Telekurs Euro TLX Average	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
HUS	High yield US bond	Closure Market (D-1) Mid	Interactive Data Evaluated Mid Price	Bloomberg BGN Mid	Telekurs ICMA Mid	Telekurs MOT Ref	Telekurs Euro TLX Average	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
HAS	Asian High Yields	Closure Market (D-1) Mid	Interactive Data Evaluated Mid Price	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
HAU	Australian High Yields	Closure Market (D-1) Mid	Interactive Data Evaluated Mid Price	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
IDX	Index linked bond	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	Telekurs MOT Ref	Telekurs Euro TLX Average	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
LAB	Linear amortization bonds	n/a	Multifonds Calculation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
CAT	Catastrophic Bonds	Closure Market (D-1) Mid	Multiple Specific Broker	n/a	n/a	n/a	n/a	Source consistency approach	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers

	LOA	Loans	Closure Market (D-1) Mid	Markit	Client	n/a	n/a	n/a	Source consistency approach	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
	SUP	Supranational bond	Closure Market (D-1) Mid	Interactive Data Evaluated Mid Price	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	Telekurs ICMA Mid	n/a	2.5% Tolerance Between Data Vendors Prices	2.5% Price Tolerance Movement	Switch to Previous Day Mid Price	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers
	TCN	Titres de créances négociables / EMTN	Closure Market (D-1) Mid	Bloomberg BGN Mid	Telekurs Most Liquid Market Place Mid	n/a	n/a	n/a	0.75% Tolerance Between Data Vendors Prices	1% Price Tolerance Movement	n/a	n/a	Investment Manager Quotes Broker/Issuer Quotes Lead Manager / Book Runner Quotes Any other relevant pricing Sources/Data Providers