

The following list of symbols specifies which firms are registered to supply liquidity for each symbol in 2019-06-25:

➤ 1COVd - Covestro AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Jump Trading Europe B.V. (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ 2HRAd - H&R GmbH & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ 888l - 888 Holdings PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ A1OSd - All for One Group AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ A2Am - A2A SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ A3Me - Atresmedia Corp de Medios de Comunicacion SA

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ A5Gi - AIB Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AADd - Amadeus Fire AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AAKs - AAK AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
XTX Markets Limited (Program Three)

➤ AALBa - Aalberts NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AAL - Anglo American PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AAL - AA PLC

XTX Markets Limited (Program Three)

➤ ABBNz - ABB Ltd

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ABBs - ABB Ltd

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ABCAp - ABC arbitrage

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ABFl - Associated British Foods PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ABIOp - Albioma SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AB1b - Anheuser-Busch InBev SA/NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ABNa - ABN AMRO Group NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ABVXp - Abivax SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ABp - AB Science SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ACAI - Acacia Mining PLC

XTX Markets Limited (Program Three)

➤ ACAP - Credit Agricole SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ACCELa - Accell Group NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ACEm - ACEA SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
XTX Markets Limited (Program Three)

➤ ACKBb - Ackermans & van Haaren NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ACOMOa - Amsterdam Commodities NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ACSe - ACS Actividades de Construcción y Servicios SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ ACXe - Acerinox SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ACp - Accor SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ADENZ - Adecco Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ADLd - ADLER Real Estate AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ADML - Admiral Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ADN1d - Adesso AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ADOCp - Adocia

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ADPp - Aeroports de Paris

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ADSd - adidas AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ADVd - ADVA Optical Networking SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ADXNz - Addex Therapeutics Ltd

Citadel Securities (Europe) Limited (Program Three)

➤ ADYENa - Adyen NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ADa - Koninklijke Ahold Delhaize NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AEDb - Aedifica SA

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ AEFm - Aeffe SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AEINd - Allgeier SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AENaE - Aena SME SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ AFXd - Carl Zeiss Meditec AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ AFp - Air France-KLM

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AGFBb - AGFA-Gevaert NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AGKl - Aggreko PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AGLm - Autogrill SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AGNa - Aegon NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AGRI - Assura PLC

Hudson River Trading Europe Limited (Program Three)

➤ AGSb - Ageas

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AHTI - Ashtead Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AIRd - Airbus SE

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ AIRp - Airbus SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AIXAd - AIXTRON SE

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ Alp - Air Liquide SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AKAp - Akka Technologies

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AKERBo - Aker BP ASA

Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AKERo - Aker ASA

XTX Markets Limited (Program Three)

➤ AKEp - Arkema SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AKSOo - Aker Solutions ASA

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ AKWp - AKWEL

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AKZAa - Akzo Nobel NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ALCz - Alcon Inc

BNP Paribas Arbitrage SNC (Program One and Three)

➤ ALDp - ALD SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ ALFAs - Alfa Laval AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ALIVs - Autoliv Inc

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ALLNz - Allreal Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ ALMe - Almirall SA

XTX Markets Limited (Program Three)

➤ ALOp - Alstom SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ALPHz - Alpiq Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ ALSNz - ALSO Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ ALTAp - Altea SCA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ALTRu - Altri SGPS SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ ALTp - Altran Technologies SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ALVd - Allianz SE

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Jump Trading Europe B.V. (Program Three)
 Societe Generale London Branch (Program Three)
 Tower Research Capital Europe BV (Program Two)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ AMBUBc - Ambu A/S

Societe Generale London Branch (Program Three)

➤ AMEASh - Amer Sports Oyj

Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ AMGa - AMG Advanced Metallurgical Group NV

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Hudson River Trading Europe Limited (Program Three)
 Virtu Financial Ireland Ltd (Program Two)

➤ AMPm - Amplifon SpA

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Hudson River Trading Europe Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)

➤ AMSe - Amadeus IT Group SA

BNP Paribas Arbitrage SNC (Program One and Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)

➤ AMSz - ams AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 XTX Markets Limited (Program Three)

➤ AMUNp - Amundi SA

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 XTX Markets Limited (Program Three)

➤ AMp - Dassault Aviation SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ ANAe - Acciona SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ANDRv - ANDRITZ AG

Virtu Financial Ireland Ltd (Program Two)

➤ ANIMm - Anima Holding SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ ANTOL - Antofagasta PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AOXd - alstria office REIT-AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ APAMa - APERAM SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ APPSe - Applus Services SA

XTX Markets Limited (Program Three)

➤ APRp - APRIL SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AR4d - AURELIUS Equity Opportunities SE & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ARBNz - Arbonia AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ ARCADa - Arcadis NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ARGXb - Argenx SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ARGp - ARGAN SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ARLd - Aareal Bank AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ARYNz - Aryzta AG

Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ ASCNz - Ascom Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ ASCb - Ascencio

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ASCm - Ascopiave SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ASHML - Ashmore Group PLC

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ASLI - Aberforth Smaller Companies Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ ASMLa - ASML Holding NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ASMa - ASM International NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ASPp - AST Groupe SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ASRNLa - ASR Nederland NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ ASRm - AS Roma SpA

Virtu Financial Ireland Ltd (Program Two)

➤ ASSABs - Assa Abloy AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ASYp - Assystem SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AT1d - Arountown SA

BNP Paribas Arbitrage SNC (Program One and Three)

➤ ATCBa - Altice Europe NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Three)
XTX Markets Limited (Program Three)

➤ ATCOAs - Atlas Copco AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ATCOBs - Atlas Copco AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ATCa - Altice Europe NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ATEAo - Atea ASA

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ATEBb - Atenor

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ATEMEp - ATEME SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ATEp - Alten SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ATIp - Actia Group

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ATLm - Atlantia SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ ATOp - Atos SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ATSTI - Alliance Trust PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ ATm - ASTM SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ AUBp - Aubay

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AUSSo - Austevoll Seafood ASA

XTX Markets Limited (Program Three)

➤ AUTME m - Autostrade Meridionali SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AUTNz - Autoneum Holding AG

XTX Markets Limited (Program Three)

➤ AUTOl - Auto Trader Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ AVIOM - Avio SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ AVONI - Avon Rubber PLC

Citadel Securities (Europe) Limited (Program Three)

➤ AWW - AVEVA Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AVI - Aviva PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AXBI - Axis Bank Ltd

Citadel Securities (Europe) Limited (Program Three)

➤ AXFOs - Axfood AB

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AZMm - Azimut Holding SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AZNI - AstraZeneca PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ AZNs - AstraZeneca PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ B4Bd - METRO AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ B5Ad - Bauer AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ B8Fd - Biofrontera AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BABl - Babcock International Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BAERz - Julius Baer Group Ltd

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BAGl - AG Barr PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BAKKAo - Bakkafrost P/F

Societe Generale London Branch (Program Three)

➤ BALDBs - Fastighets AB Balder

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ BALNz - Baloise Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ BALYOp - Balyo SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BAMIm - Banco BPM SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ BAMNBa - Koninklijke BAM Groep NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BANBz - Bachem Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ BANm - BasicNet SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BARCl - Barclays PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BARNz - Barry Callebaut AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ BARb - Barco NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BASd - BASF SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BATSl - British American Tobacco PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BAYNd - Bayer AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BAl - BAE Systems PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BBAI - BBA Aviation PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BBEDa - Beter Bed Holding NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ BBNz - Bellevue Group AG

Citadel Securities (Europe) Limited (Program Three)

➤ BBOXl - Tritax Big Box REIT PLC

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ BBVAe - Banco Bilbao Vizcaya Argentaria SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BByl - Balfour Beatty PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BBp - Societe BIC SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BC8d - Bechtle AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BCARTb - Biocartis NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BCGEz - Banque Cantonale de Geneve

Citadel Securities (Europe) Limited (Program Three)

➤ BCHNz - Burckhardt Compression Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BCPu - Banco Comercial Portugues SA

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BCVNz - Banque Cantonale Vaudoise

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BCm - Brunello Cucinelli SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BDEVI - Barratt Developments PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BDTd - Bertrandt AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BEANz - Belimo Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ BECm - B&C Speakers SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BEFBb - Befimmo SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BEId - Beiersdorf AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BEKBb - Bekaert SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BEKNz - Berner Kantonalbank AG

Citadel Securities (Europe) Limited (Program Three)

➤ BELLz - Bell Food Group AG

Citadel Securities (Europe) Limited (Program Three)

➤ BENp - Beneteau SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BESla - BE Semiconductor Industries NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ BETSBs - Betsson AB

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ BEZd - Berentzen-Gruppe AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BEZl - Beazley PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BFITa - Basic-Fit NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BGEOL - Bank of Georgia Group PLC

XTX Markets Limited (Program Three)

➤ BGFDL - Baillie Gifford Japan Trust PLC/The

Citadel Securities (Europe) Limited (Program Three)

➤ BGNm - Banca Generali SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BGSi - Baillie Gifford Shin Nippon PLC

Citadel Securities (Europe) Limited (Program Three)

➤ BHPI - BHP Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)

➤ BIGp - Bigben Interactive

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BIJd - Bijou Brigitte AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BILLs - BillerudKorsnas AB

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ BIMp - BioMerieux

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BINCKa - BinckBank NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ BIO3d - Biotest AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BIONz - BB Biotech AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BIRGi - Bank of Ireland Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ BIRGL - Bank of Ireland Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ BKGL - Berkeley Group Holdings PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BKIAe - Bankia SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BKTe - Bankinter SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BKWz - BKW AG

XTX Markets Limited (Program Three)

➤ BLCp - Bastide le Confort Medical

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BLKBz - Basellandschaftliche Kantonalbank

Citadel Securities (Europe) Limited (Program Three)

➤ BLNDI - British Land Co PLC/The

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BMAXs - Bygghmax Group AB

XTX Markets Limited (Program Three)

➤ BMEDm - Banca Mediolanum SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ BMEe - Bolsas y Mercados Espanoles SHMSF SA

BNP Paribas Arbitrage SNC (Program One and Three)
Virtu Financial Ireland Ltd (Program Two)

➤ BMEI - B&M European Value Retail SA

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ BMPSm - Banca Monte dei Paschi di Siena SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BMW3d - Bayerische Motoren Werke AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ BMWd - Bayerische Motoren Werke AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Jump Trading Europe B.V. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BNBB - Banque Nationale de Belgique

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BNKRI - Bankers Investment Trust PLC/The

Citadel Securities (Europe) Limited (Program Three)

➤ BNPp - BNP Paribas SA

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Optiver V.O.F. (Program Two and Three)
 Societe Generale London Branch (Program Three)
 Tower Research Capital Europe BV (Program Two)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ BNRd - Brenntag AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ BNZLL - Bunzl PLC

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ BNp - Danone SA

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Optiver V.O.F. (Program Two and Three)
 Societe Generale London Branch (Program Three)
 Tower Research Capital Europe BV (Program Two)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ BOBNNz - Bobst Group SA

Citadel Securities (Europe) Limited (Program Three)

➤ BOlp - Boiron SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BOKAa - Boskalis Westminster

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ BOLp - Bollore SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BOLs - Boliden AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BONp - Bonduelle SCA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BOSNz - Bossard Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BOSSd - HUGO BOSS AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BOYl - Bodycote PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BPEm - BPER Banca

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BPOSTb - bpost SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BPSOm - Banca Popolare di Sondrio SCPA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ BPl - BP PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BRAVs - Bravida Holding AB

Hudson River Trading Europe Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BRBYL - Burberry Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BREBb - Brederode SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BREm - Freni Brembo SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BRGo - Borregaard ASA

XTX Markets Limited (Program Three)

➤ BRKNz - Burkhalter Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ BRNLa - Brunel International NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ [BRSCI - BlackRock Smaller Cos Trust PLC](#)

Citadel Securities (Europe) Limited (Program Three)

➤ [BRWML - BlackRock World Mining Trust PLC](#)

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ [BRWL - Brewin Dolphin Holdings PLC](#)

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ [BSGRa - B&S Group Sarl](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [BSKPz - Basler Kantonalbank](#)

Citadel Securities (Europe) Limited (Program Three)

➤ [BSLNz - Basilea Pharmaceutica AG](#)

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ [BSLd - Basler AG](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [BSSm - Biesse SpA](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [BSTm - Banca Sistema SpA](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [BTGI - BTG PLC](#)

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BTL - BT Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BUCNz - Bucher Industries AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ BVBD - Borussia Dortmund GmbH & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BVICL - Britvic PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BVlp - Bureau Veritas SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BVSl - Bovis Homes Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BWNGl - N Brown Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BWYl - Bellway PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ BYGI - Big Yellow Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ BYW6d - BayWa AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BZURm - Buzzi Unicem SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ BZUm - Buzzi Unicem SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ C5Hi - Cairn Homes PLC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CABKe - CaixaBank SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ CAFe - Construcciones y Auxiliar de Ferrocarriles SA

XTX Markets Limited (Program Three)

➤ CAFp - Caisse Regionale de Credit Agricole Mutuel de Paris et d'Ile-de-France

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CAIm - Cairo Communication SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ CAIv - CA Immobilien Anlagen AG

Virtu Financial Ireland Ltd (Program Two)

➤ CALL - Capital & Regional PLC

Citadel Securities (Europe) Limited (Program Three)

➤ CAPCI - Capital & Counties Properties PLC

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CAPd - Encavis AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CAPp - Capgemini SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CARDI - Card Factory PLC

XTX Markets Limited (Program Three)

➤ CARLBc - Carlsberg A/S

Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CARMp - Carmila SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CARRm - Carraro SpA/Campodarsego

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CASSm - Societa Cattolica di Assicurazioni SC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CASTs - Castellum AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CATGp - Catana Group

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CAp - Carrefour SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CBGL - Close Brothers Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CBKd - Commerzbank AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CCCI - Computacenter PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ CCEPa - Coca-Cola European Partners PLC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CCHl - Coca-Cola HBC AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CCLl - Carnival PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CCRI - C&C Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ CDAp - Cie des Alpes

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CDlp - Christian Dior SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CE2d - CropEnergies AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CECd - CECONOMY AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ CEMm - Cementir Holding SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CENp - Groupe Crit

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CERVm - Cerved Group SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ CEVd - CENTROTEC Sustainable AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CEYL - Centamin PLC

XTX Markets Limited (Program Three)

➤ CEZk - CEZ AS

Erste Group Bank AG (Program Three)

➤ CEm - Credito Emiliano SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ CFEBb - Cie d'Entreprises CFE

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ CFRz - Cie Financiere Richemont SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CGCBVh - Cargotec Oyj

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CGGp - CGG SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ CHGL - Chemring Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ CHRc - Chr Hansen Holding A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CICNz - Cicor Technologies Ltd

Citadel Securities (Europe) Limited (Program Three)

➤ CIEe - CIE Automotive SA

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ CINEl - Cineworld Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ CIRm - CIR-Compagnie Industriali Riunite SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ CKNl - Clarkson PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ CLABs - Cloetta AB

XTX Markets Limited (Program Three)

➤ CLDNI - Caledonia Investments PLC

Citadel Securities (Europe) Limited (Program Three)

➤ CLNXe - Cellnex Telecom SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ CLNz - Clariant AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ CLTNz - Coltene Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ CLXNz - Crealogix Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ CMBNz - Cembra Money Bank AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ CMBm - Cembre SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CNAI - Centrica PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CNEI - Cairn Energy PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CNFp - Caisse Regionale de Credit Agricole Mutuel Nord de France

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CNHIm - CNH Industrial NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CNPp - CNP Assurances

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CNWKd - Co.don AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ COAL - Coats Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ COBl - Cobham PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ COFap - Coface SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ COFBb - Cofinimmo SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ COKd - CANCOM SE

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ COLOBc - Coloplast A/S

Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ COLRb - Colruyt SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ COLe - Inmobiliaria Colonial Socimi SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ COMBb - Cie du Bois Sauvage SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ COMd - comdirect bank AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CONd - Continental AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CONz - Conzzeta AG

Citadel Securities (Europe) Limited (Program Three)

➤ COPNz - COSMO Pharmaceuticals NV

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ COPd - CompuGroup Medical SE

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ CORu - Corticeira Amorim SGPS SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ COSTl - Costain Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ COTNz - Comet Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ COVp - Covivio

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ COXp - Nicox

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ COp - Casino Guichard Perrachon SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CPGl - Compass Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CPINvb - Care Property Invest NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CPII - Capita PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CPRm - Davide Campari-Milano SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CRA1Vh - Cramo OYJ

XTX Markets Limited (Program Three)

➤ CRBNa - Corbion NV

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ CRDAI - Croda International PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CRESm - COIMA RES SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CRGi - CRH PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ CRHl - CRH PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CRIp - Chargeurs SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ CRSTl - Crest Nicholson Holdings plc

XTX Markets Limited (Program Three)

➤ CSGNz - Credit Suisse Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CSHd - CENIT AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ CSNI - Chesnara PLC

Citadel Securities (Europe) Limited (Program Three)

➤ CSXd - Credit Suisse Group AG

Optiver V.O.F. (Program Three)

➤ CSp - AXA SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ CTECl - ConvaTec Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ CTTu - CTT-Correios de Portugal SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ [CTY1Sh - Citycon OYJ](#)

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ [CTYL - City of London Investment Trust PLC/The](#)

Citadel Securities (Europe) Limited (Program Three)

➤ [CVAlm - Credito Valtellinese SpA](#)

Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ [CWCd - Cewe Stiftung & Co KGAA](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [CWDl - Countrywide PLC](#)

XTX Markets Limited (Program Three)

➤ [CWKl - Cranswick PLC](#)

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ [CYADb - Celyad SA](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [CYBGl - CYBG PLC](#)

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ [DAEz - Daetwyler Holding AG](#)

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ [DAId - Daimler AG](#)

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Jump Trading Europe B.V. (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DALm - Datalogic SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ DANRm - Danieli & C Officine Meccaniche SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ DANSKc - Danske Bank A/S

Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DANm - Danieli & C Officine Meccaniche SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ DB1d - Deutsche Boerse AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DBANd - Deutsche Beteiligungs AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ DBGp - Derichebourg SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ DBKd - Deutsche Bank AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Jump Trading Europe B.V. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DBVp - DBV Technologies SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ DCCI - DCC PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ DCI - Dixons Carphone PLC

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DEAm - DeA Capital SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ DECp - JCDecaux SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DEQd - Deutsche EuroShop AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DESNz - Dottikon Es Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ DEXBb - Dexia SA

Virtu Financial Ireland Ltd (Program Two)

➤ DEZd - Deutz AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ DFDSc - Dfds A/S

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ DGEI - Diageo PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DGp - Vinci SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DHERd - Delivery Hero SE

BNP Paribas Arbitrage SNC (Program One and Three)

➤ DHGi - Dalata Hotel Group PLC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ DIAe - Distribuidora Internacional de Alimentacion SA

Virtu Financial Ireland Ltd (Program Two)

➤ DIAL - Dialight PLC

Virtu Financial Ireland Ltd (Program Two)

➤ DIAm - DiaSorin SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DIBm - Digital Bros SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ DICd - DIC Asset AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ DIEb - D'ieten SA/NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DIMp - Sartorius Stedim Biotech

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ DIOs - Dios Fastigheter AB

XTX Markets Limited (Program Three)

➤ DKSHz - DKSH Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ DLARl - De La Rue PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ DLGd - Dialog Semiconductor PLC

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DLGl - Direct Line Insurance Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DLGm - De' Longhi SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DLNl - Derwent London PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DMGTI - Daily Mail & General Trust PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DMREd - DEMIRE Deutsche Mittelstand Real Estate AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ DNBo - DNB ASA

Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DNLMl - Dunelm Group PLC

XTX Markets Limited (Program Three)

➤ DNORDc - D/S Norden A/S

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DNOo - DNO ASA

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DOKAz - dormakaba Holding AG

Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ DOMl - Domino's Pizza Group PLC

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DOMs - Dometic Group AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ DPHL - Dechra Pharmaceuticals PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ DPLMI - Diploma PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ DPWd - Deutsche Post AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Jump Trading Europe B.V. (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DRId - 1&1 Drillisch AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DRW3d - Draegerwerk AG & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ DRXI - Drax Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DSMa - Koninklijke DSM NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DSVc - DSV A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DSYp - Dassault Systemes SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DTEd - Deutsche Telekom AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ DTYl - Dignity PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ DUEd - Duerr AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ DUFNz - Dufry AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ DVOL - Devro PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ DVTp - Devoteam SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ DWNld - Deutsche Wohnen SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EBROe - Ebro Foods SA

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EBSv - Erste Group Bank AG

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ECMPAa - Eurocommercial Properties NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ECML - Electrocomponents PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ECONBb - Econocom Group SA/NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ECXd - Epigenomics AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ EDENp - Edenred

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EDFp - Electricite de France SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EDINL - Edinburgh Investment Trust PLC/The

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ EDPRu - EDP Renovaveis SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EDPu - EDP - Energias de Portugal SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EFGNz - EFG International AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ EFML - Edinburgh Dragon Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ EGLu - Mota-Engil SGPS SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ EIFFp - Societe de la Tour Eiffel

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ EIGl - EI Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ EIN3d - Einhell Germany AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ EKlp - Ekinops SAS

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ EKTABs - Elekta AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EKTe - Euskaltel SA

XTX Markets Limited (Program Three)

➤ ELCm - Elica SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ELEe - Endesa SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ ELGd - Elmos Semiconductor AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ELIORp - Elixir Group SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ ELISAh - Elisa OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ELISp - Elis SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ ELIb - Elia System Operator SA/NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ELMl - Elementis PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ELNm - El.En. SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ELUXBs - Electrolux AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ELp - EssilorLuxottica SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)

➤ EMGL - Man Group PLC/Jersey

BNP Paribas Arbitrage SNC (Program One and Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EMMNz - Emmi AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ EMSNz - EMS-Chemie Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ EMm - Emak SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ENAVm - Enav SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ENCe - Ence Energia y Celulosa SA

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ ENELm - Enel SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ENGIp - Engie SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ENGe - Enagas SA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ ENId - Eni SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ENIm - Eni SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ENTRAO - Entra ASA

XTX Markets Limited (Program Three)

➤ ENXp - Euronext NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ ENp - Bouygues SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EOANd - E.ON SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Jump Trading Europe B.V. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EOp - Faurecia SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EPIAs - Epiroc AB

BNP Paribas Arbitrage SNC (Program One and Three)

➤ EQNRo - Equinor ASA

Optiver V.O.F. (Program Three)

➤ ERAp - Eramet

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ERFp - Eurofins Scientific SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ERGm - ERG SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ERICAs - Telefonaktiebolaget LM Ericsson

Virtu Financial Ireland Ltd (Program Two)

➤ ERICBs - Telefonaktiebolaget LM Ericsson

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ERMkd - DEAG Deutsche Entertainment AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ERMI - Euromoney Institutional Investor PLC

Citadel Securities (Europe) Limited (Program Three)

➤ ERYPP - Erytech Pharma SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ESIp - ESI Group

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ESNTI - Essentra PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ESSIBs - Essity AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ ETHm - Eurotech SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ETLp - Eutelsat Communications SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ETOl - Entertainment One Ltd

XTX Markets Limited (Program Three)

➤ EUCARp - Europcar Mobility Group

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ EURNb - Euronav NV

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ EUZd - Eckert & Ziegler Strahlen- und Medizintechnik AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ EV4d - Constantin Medien AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ EVDd - CTS Eventim AG & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ EVEz - Evolva Holding SA

Citadel Securities (Europe) Limited (Program Three)

➤ EVKd - Evonik Industries AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ EVNv - EVN AG

Virtu Financial Ireland Ltd (Program Two)

➤ EVRI - Evraz PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EVSb - EVS Broadcast Equipment SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ EVTd - Evotec SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EWII - Edinburgh Worldwide Investment Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ EXMb - Exmar NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ EXNd - Expedeon AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ EXOm - EXOR NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ EXPNI - Experian PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ EXS1d - iShares Core DAX UCITS ETF DE

Jump Trading Europe B.V. (Program Three)

➤ EZJL - easyJet PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ F3Cd - SFC Energy AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FABGs - Fabege AB

BNP Paribas Arbitrage SNC (Program One and Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FAGRb - Fagron

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FBKm - FinecoBank Banca Fineco SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ FCAm - Fiat Chrysler Automobiles NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FCCe - Fomento de Construcciones y Contratas SA

Virtu Financial Ireland Ltd (Program Two)

➤ FCSSL - Fidelity China Special Situations PLC

Virtu Financial Ireland Ltd (Program Two)

➤ FCTm - Fincantieri SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FERGL - Ferguson PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FERe - Ferrovial SA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ FEVL - Fidelity European Values PLC

Citadel Securities (Europe) Limited (Program Three)

➤ FFARMa - ForFarmers NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FFPp - FFP

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FGAp - FIGEAC-AERO

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FGPI - Firstgroup PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FGRp - Eiffage SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FGTL - Finsbury Growth & Income Trust PLC/Fund

Citadel Securities (Europe) Limited (Program Three)

➤ FHZNz - Flughafen Zurich AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ FIEd - Fielmann AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ FIip - LISI

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FINGBs - Fingerprint Cards AB

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FINz - Georg Fischer AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ FIVEl - X5 Retail Group NV

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ FKRM - Falck Renewables SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FLOWa - Flow Traders

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ FLSc - FLSmidth & Co A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FLUv - Flughafen Wien AG

Virtu Financial Ireland Ltd (Program Two)

➤ FMEd - Fresenius Medical Care AG & Co KGaA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FMm - Fiera Milano SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FNACp - Fnac Darty SA

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ FNTNd - Freenet AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FORNz - Forbo Holding AG

Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ FORTMh - Fortum OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FPE3d - FUCHS PETROLUB SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FPEd - FUCHS PETROLUB SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FP Hd - Francotyp-Postalia Holding AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ FPp - TOTAL SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FRAd - Fraport AG Frankfurt Airport Services Worldwide

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FRESl - Fresnillo PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FREd - Fresenius SE & Co KGaA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FROo - Frontline Ltd/Bermuda

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FRp - Valeo SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FSJl - James Fisher & Sons PLC

Citadel Securities (Europe) Limited (Program Three)

➤ FTIp - TechnipFMC PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ FTONz - Feintool International Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ FTRNp - Futuren SA

Virtu Financial Ireland Ltd (Program Two)

➤ FURa - Fugro NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ FUTRI - Future PLC

Citadel Securities (Europe) Limited (Program Three)

➤ G1Ad - GEA Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ G24d - Scout24 AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ GALEz - Galenica AG

BNP Paribas Arbitrage SNC (Program One and Three)

➤ GALPu - Galp Energia SGPS SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GAMz - GAM Holding AG

Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ GAVz - Carlo Gavazzi Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ GAWL - Games Workshop Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ GBBp - Bourbon Corp

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ GBFd - Bilfinger SE

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GBLBb - Groupe Bruxelles Lambert SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GBTp - Guerbet

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GCCi - C&C Group PLC

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ GEBNz - Geberit AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GEDIm - GEDI Gruppo Editoriale SpA

Virtu Financial Ireland Ltd (Program Two)

➤ GENLI - Genel Energy Plc

Virtu Financial Ireland Ltd (Program Two)

➤ GENc - Genmab A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GEOm - Geox SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ GETIBs - Getinge AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GETp - Getlink SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GEm - Gefran SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GFCp - Gecina SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GFRDL - Galliford Try PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ GFSI - G4S PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GFTUL - Grafton Group PLC

XTX Markets Limited (Program Three)

➤ GFTd - GFT Technologies SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GGTVm - Giglio Group SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GILd - DMG Mori AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ GIMBb - Gimv NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GIVNz - Givaudan SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GJFo - Gjensidige Forsikring ASA

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GKPl - Gulf Keystone Petroleum Ltd

Citadel Securities (Europe) Limited (Program Three)

➤ GKSD - GK Software SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GL9i - Glanbia PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GLENI - Glencore PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GLEp - Societe Generale SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GLJd - GRENKE AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ GLOp - GL Events

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GLPGa - Galapagos NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GMMd - Grammer AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GN1i - Green REIT plc

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GNCl - Greencore Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ GNFTp - Genfit

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GNKL - Greene King PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GNSl - Genus PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ GNc - GN Store Nord A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GOEp - Groupe Gorge

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GOGLo - Golden Ocean Group Ltd

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ GOGl - Go-Ahead Group PLC/The

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GPORl - Great Portland Estates PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GREENb - Greenyard NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GRFe - Grifols SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GRGl - Greggs PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ GRll - Grainger PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ GRKPz - Graubuendner Kantonalbank

Citadel Securities (Europe) Limited (Program Three)

➤ GRNGs - Granges AB

XTX Markets Limited (Program Three)

➤ GSC1d - Gesco AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ GSFo - Grieg Seafood ASA

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ GSKl - GlaxoSmithKline PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ GSSl - Genesis Emerging Markets Fund Ltd

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ GTTp - Gaztransport Et Technigaz SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ GURz - Gurit Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ GVCl - GVC Holdings PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ GVNva - GrandVision NV

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ GXId - Gerresheimer AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ Gm - Assicurazioni Generali SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ H5Ed - HELMA Eigenheimbau AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HABd - Hamborner REIT AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HAEd - HAEMATO AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HALa - HAL Trust

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HASI - Hays PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HBHd - Hornbach Holding AG & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HBLNz - Hypothekarbank Lenzburg AG

Citadel Securities (Europe) Limited (Program Three)

➤ HBMd - Hornbach Baumarkt AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HBRNi - Hibernia REIT plc

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HDDd - Heidelberger Druckmaschinen AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ HDGa - Hunter Douglas NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HEADl - Headlam Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ HEIAa - Heineken NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HEIJMa - Heijmans NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ HEIOa - Heineken Holding NV

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ HEId - HeidelbergCement AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ HELNz - Helvetia Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 XTX Markets Limited (Program Three)

➤ HEMFs - Hemfosa Fastigheter AB

XTX Markets Limited (Program Three)

➤ HEN3d - Henkel AG & Co KGaA

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ HENd - Henkel AG & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ HERm - Hera SpA

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Hudson River Trading Europe Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ HEXABs - Hexagon AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HFDI - Halfords Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HGTL - HgCapital Trust PLC/Fund

Citadel Securities (Europe) Limited (Program Three)

➤ HHFAd - Hamburger Hafen und Logistik AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ HHPDI - Hon Hai Precision Industry Co Ltd

Citadel Securities (Europe) Limited (Program Three)

➤ HICLI - Hicli Infrastructure PLC

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HIKI - Hikma Pharmaceuticals PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HILSI - Hill & Smith Holdings PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ HLCLI - Helical PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ HLEd - Hella GmbH & Co KGaA

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ HLMAI - Halma PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HLL - Hargreaves Lansdown PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HMBs - Hennes & Mauritz AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HMSOI - Hammerson PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HNLd - Dr Hoenle AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HNR1d - Hannover Rueck SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HOCd - HolidayCheck Group AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HOCl - Hochschild Mining PLC

XTX Markets Limited (Program Three)

➤ HOLMBs - Holmen AB

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HOMIb - Home Invest Belgium SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HOTd - HOCHTIEF AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HOp - Thales SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HPOLBs - Hexpol AB

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ HRll - Herald Investment Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ HSBAI - HSBC Holdings PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HSBp - HSBC Holdings PLC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ HSLI - Henderson Smaller Companies Investment Trust PLC/The

Citadel Securities (Europe) Limited (Program Three)

➤ HSTGL - Hastings Group Holdings PLC

XTX Markets Limited (Program Three)

➤ HSTNI - Hansteen Holdings PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ HSVI - HomeServe PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ HSXI - Hiscox Ltd

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HTGL - Hunting PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HUBNz - Huber + Suhner AG

Citadel Securities (Europe) Limited (Program Three)

➤ HUFVAs - Hufvudstaden AB

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HUH1Vh - Huhtamaki OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HUSQAs - Husqvarna AB

Virtu Financial Ireland Ltd (Program Two)

➤ HUSQBs - Husqvarna AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ HWDNI - Howden Joinery Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ HYQd - Hypoport AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ IAGe - International Consolidated Airlines Group SA

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ IAGI - International Consolidated Airlines Group SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IBABb - Ion Beam Applications

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ IBEE - Iberdrola SA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IBSTI - Istock PLC

XTX Markets Limited (Program Three)

➤ ICADp - ICADE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ICAs - ICA Gruppen AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ ICPI - Intermediate Capital Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IDLp - ID Logistics Group

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ IDRe - Indra Sistemas SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IFCNz - Inficon Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ IFXd - Infineon Technologies AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IFm - Banca IFIS SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ IGDm - Immobiliare Grande Distribuzione SIIQ SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ IGGL - IG Group Holdings PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IGYd - Innogy SE

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ IGm - Italgas SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)

➤ IHGl - InterContinental Hotels Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IIAv - IMMOFINANZ AG

Virtu Financial Ireland Ltd (Program Two)

➤ IIIl - 3i Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ILDp - Iliad SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IMAm - IMA Industria Macchine Automatiche SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ IMBl - Imperial Brands PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IMCDa - IMCD NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ IMII - IMI PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IMPNz - Implenla AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ INCHl - Inchcape PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INDUAs - Industrivarden AB

BNP Paribas Arbitrage SNC (Program One and Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INDUCs - Industrivarden AB

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INDVl - Indivior PLC

XTX Markets Limited (Program Three)

➤ INFl - Informa PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INFp - Infotel SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ INGAa - ING Groep NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INGp - Ingenico Group SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INHd - Indus Holding AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ INRNz - Interroll Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ INSDp - Inside Secure SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ INTERa - Intertrust NV

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ INTOb - Intervest Offices & Warehouses NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ INTRUs - Intrum AB

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ INTUL - Intu Properties PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INVEAs - Investor AB

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INVEBs - Investor AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INVPL - Investec PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ INWm - Infrastrutture Wireless Italiane SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
XTX Markets Limited (Program Three)

➤ IOLm - Italiaonline SpA

Virtu Financial Ireland Ltd (Program Two)

➤ IPFI - International Personal Finance PLC

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IPHp - Innate Pharma SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ IPNp - Ipsen SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IPOI - IP Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ IPSp - IPSOS

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IPm - Interpump Group SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IR5Bi - Irish Continental Group PLC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ IRESi - Irish Residential Properties REIT PLC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ IREm - Iren SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ISATl - Inmarsat PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ISNz - Intershop Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ ISPm - Intesa Sanpaolo SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ISRd - Isra Vision AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ISSc - ISS A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ITEL - ITE Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ ITMm - Italmobiliare SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ITPp - Interparfums SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ITRkl - Intertek Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ITVl - ITV PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ITXe - Industria de Diseno Textil SA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ IVUd - IVU Traffic Technologies AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ IWGl - IWG PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ IXXd - Traffic Systems SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ JAMl - JPMorgan American Investment Trust PLC/Fund

Citadel Securities (Europe) Limited (Program Three)

➤ JCHl - JPMorgan Claverhouse Investment Trust PLC/Fund

Citadel Securities (Europe) Limited (Program Three)

➤ JCQp - Jacquet Metal Service SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ JDWl - J D Wetherspoon PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ JDI - JD Sports Fashion PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ JENd - Jenoptik AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ JEI - Just Eat PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ JLGI - John Laing Group PLC

XTX Markets Limited (Program Three)

➤ JMAtI - Johnson Matthey PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ JMGI - JPMorgan Emerging Markets Investment Trust plc

Citadel Securities (Europe) Limited (Program Three)

➤ JMTu - Jeronimo Martins SGPS SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ JMs - JM AB

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ JPGII - JPMorgan Global Growth & Income PLC/Fund

Citadel Securities (Europe) Limited (Program Three)

➤ JUN3d - Jungheinrich AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ JUPL - Jupiter Fund Management PLC

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ JUSTI - Just Group PLC

XTX Markets Limited (Program Three)

➤ JUSI - Jupiter US Smaller Companies PLC

Citadel Securities (Europe) Limited (Program Three)

➤ JUVEm - Juventus Football Club SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ JYSKc - Jyske Bank A/S

Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KAHLs - KappAhl AB

XTX Markets Limited (Program Three)

➤ KARNz - Kardex AG

Citadel Securities (Europe) Limited (Program Three)

➤ KAZI - KAZ Minerals PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ KBCAb - KBC Ancora

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ KBCb - KBC Group NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KBXd - Knorr-Bremse AG

BNP Paribas Arbitrage SNC (Program One and Three)

➤ KCOMl - KCOM Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ KCOd - Kloeckner & Co SE

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KCRh - Konecranes OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KEMIRh - Kemira OYJ

Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KENDRa - Kendrion NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ KERp - Kering SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KESKBh - Kesko OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KGFL - Kingfisher PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KGPI - Kingspan Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ KGXd - KION Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ KIEI - Kier Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ KINDs - Kindred Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KINVBs - Kinnevik AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KINb - Kinopolis Group NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ KLEDs - Kungsliden AB

XTX Markets Limited (Program Three)

➤ KLRI - Keller Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ KNEBVh - Kone OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KNINz - Kuehne + Nagel International AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ KNp - Natixis SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KOAo - Kongsberg Automotive ASA

XTX Markets Limited (Program Three)

➤ KOFp - Kaufman & Broad SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ KOGGo - Kongsberg Gruppen ASA

XTX Markets Limited (Program Three)

➤ KOMBk - Komercni banka as

Erste Group Bank AG (Program Three)

➤ KOMNz - Komax Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ KORIp - Korian SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ KPNa - Koninklijke KPN NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ KRNd - Krones AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ KRXi - Kingspan Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ KRZi - Kerry Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ KSB3d - KSB SE & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ KSCd - KPS AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ KU2d - KUKA AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ KUDz - Kudelski SA

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ KVAERo - Kvaerner ASA

Virtu Financial Ireland Ltd (Program Two)

➤ KWVa - Koninklijke Volkerwessels NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ KWSd - KWS Saat SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ KYGAl - Kerry Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ LANDl - Land Securities Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LATOBs - Investment AB Latour

XTX Markets Limited (Program Three)

➤ LATp - Latecoere SACA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LBIRDp - Lumibird

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LDOm - Leonardo SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LDm - La Doria SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LEASb - Leasinvest Real Estate SCA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LECNz - Leclanche SA

Citadel Securities (Europe) Limited (Program Three)

➤ LEGd - LEG Immobilien AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ LEHNz - LEM Holding SA

Citadel Securities (Europe) Limited (Program Three)

➤ LEId - Leifheit AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LEOd - Leoni AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LGENl - Legal & General Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LHAd - Deutsche Lufthansa AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Jump Trading Europe B.V. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LHNp - LafargeHolcim Ltd

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ LHNz - LafargeHolcim Ltd

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LIABs - Lindab International AB

XTX Markets Limited (Program Three)

➤ LIGHTa - Signify NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ LIND - Linde PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LISNz - Chocoladefabriken Lindt & Spruengli AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)

➤ LISPz - Chocoladefabriken Lindt & Spruengli AG

Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ LITm - Retelit SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ Llp - Klepierre SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LKODI - LUKOIL PJSC

Citadel Securities (Europe) Limited (Program Three)

➤ LLBNz - Liechtensteinische Landesbank AG

Citadel Securities (Europe) Limited (Program Three)

➤ LLOYL - Lloyds Banking Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LMIL - Lonmin PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ LMPi - LondonMetric Property PLC

XTX Markets Limited (Program Three)

➤ LNAp - LNA Sante SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LNZv - Lenzing AG

Virtu Financial Ireland Ltd (Program Two)

➤ LOCALp - Solocal Group

Hudson River Trading Europe Limited (Program Three)

➤ LOGNz - Logitech International SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ LOGe - Cia de Distribucion Integral Logista Holdings SA

XTX Markets Limited (Program Three)

➤ LONNz - Lonza Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ LOOKI - Lookers PLC

Citadel Securities (Europe) Limited (Program Three)

➤ LOOMBs - Loomis AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ LOTBb - Lotus Bakeries NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LPKd - LPKF Laser & Electronics AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LREL - Lancashire Holdings Ltd

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LRm - Landi Renzo SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LRp - Legrand SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LSEI - London Stock Exchange Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LSGo - Leroy Seafood Group ASA

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ LSSp - Lectra

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ LTODI - Larsen & Toubro Ltd

Citadel Securities (Europe) Limited (Program Three)

➤ LUKNz - Luzerner Kantonalbank AG

Citadel Securities (Europe) Limited (Program Three)

➤ LUMIs - Lundin Mining Corp

Virtu Financial Ireland Ltd (Program Two)

➤ LUNDBs - L E Lundbergforetagen AB

BNP Paribas Arbitrage SNC (Program One and Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LUNc - H Lundbeck A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LUPEs - Lundin Petroleum AB

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ LWDBI - Law Debenture Corp PLC/fund

Citadel Securities (Europe) Limited (Program Three)

➤ LXSd - LANXESS AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ M5Zd - Manz AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MABl - Mitchells & Butlers PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MAERAc - AP Moller - Maersk A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MAERBc - AP Moller - Maersk A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MAN3d - MAN SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MANd - MAN SE

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MAPe - Mapfre SA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MARRm - MARR SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MARSl - Marston's PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ MAUp - Etablissements Maurel et Prom

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ MBBd - MBB SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MBTNz - Meyer Burger Technology AG

Citadel Securities (Europe) Limited (Program Three)

➤ MBWSp - Marie Brizard Wine & Spirits SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MBm - Mediobanca Banca di Credito Finanziario SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MCROI - Micro Focus International PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ MCp - LVMH Moet Hennessy Louis Vuitton SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MDCl - Mediclinic International PLC

XTX Markets Limited (Program Three)

➤ MDG1d - Medigene AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MDMp - Maisons du Monde SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ MDWp - Mediawan SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MDXHb - MDxHealth

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MEKOs - Mekonomen AB

XTX Markets Limited (Program Three)

➤ MELEb - Melexis NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ MELe - Melia Hotels International SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ MERLl - Merlin Entertainments PLC

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ MERYp - Mercialys SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ METNz - Metall Zug AG

Citadel Securities (Europe) Limited (Program Three)

➤ METSBh - Metsa Board OYJ

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ METSOh - Metso OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MFp - Wendel SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MGAMl - Morgan Advanced Materials PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MGGTl - Meggitt PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MGNSl - Morgan Sindall Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ MIKNz - Mikron Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ MINGo - SpareBank 1 SMN

XTX Markets Limited (Program Three)

➤ MITRAb - Mithra Pharmaceuticals SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MKEAp - Mauna Kea Technologies

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MKSl - Marks & Spencer Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MLCl - Millennium & Copthorne Hotels PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MLPd - MLP SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MLp - Cie Generale des Etablissements Michelin SCA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MMBp - Lagardere SCA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MMKv - Mayr Melnhof Karton AG

Virtu Financial Ireland Ltd (Program Two)

➤ MMTp - Metropole Television SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ MNDI - Mondi PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MNKSI - Monks Investment Trust PLC/The

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ MNODI - MMC Norilsk Nickel PJSC

Citadel Securities (Europe) Limited (Program Three)

➤ MNPI - Martin Currie Global Portfolio Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ MNZSI - John Menzies PLC

Citadel Securities (Europe) Limited (Program Three)

➤ MNm - Arnoldo Mondadori Editore SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ MOBNz - Mobimo Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ MOLm - Gruppo MutuiOnline SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MONCm - Moncler SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MONTb - Montea C.V.A

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MONYl - Moneysupermarket.com Group PLC

XTX Markets Limited (Program Three)

➤ MORd - MorphoSys AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MOZNz - Mobilezone Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ MRCHl - Merchants Trust PLC/The

Citadel Securities (Europe) Limited (Program Three)

➤ MRCl - Mercantile Investment Trust PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ MRKd - Merck KGaA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MRLe - Merlin Properties Socimi SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ MRNp - Mersen SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MROL - Melrose Industries PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ MRWl - Wm Morrison Supermarkets PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MSAGd - MS Industrie AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MSLHL - Marshalls PLC

Citadel Securities (Europe) Limited (Program Three)

➤ MSm - Mediaset SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MTCl - Mothercare PLC

XTX Markets Limited (Program Three)

➤ MTGBs - Modern Times Group MTG AB

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MTGz - Meier Tobler Group AG

Citadel Securities (Europe) Limited (Program Three)

➤ MTOL - Mitie Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MTROL - Metro Bank PLC

XTX Markets Limited (Program Three)

➤ MTSe - ArcelorMittal

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ MTUp - Manitou BF SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MTVm - Mondo TV SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MTXd - MTU Aero Engines AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MTa - ArcelorMittal

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ MTm - Maire Tecnimont SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ MUBd - Muehlbauer Holding AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MUMd - Mensch und Maschine Software SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MUV2d - Muenchener Rueckversicherungs-Gesellschaft AG in Muenchen

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Tower Research Capital Europe BV (Program Two)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ MUXd - mutares AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MXHNd - MAX Automation SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ MYII - Murray International Trust PLC

Citadel Securities (Europe) Limited (Program Three)
 Virtu Financial Ireland Ltd (Program Two)

➤ N7Gd - Nanogate SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ NANOl - Nanoco Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ NANOp - Nanobiotix

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ NASo - Norwegian Air Shuttle ASA

Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ NC5Ad - NorCom Information Technology GmbH & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ NCCBs - NCC AB

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NCCI - NCC Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ NDAc - Nordea Bank Abp

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NDAd - Aurubis AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NDAs - Nordea Bank Abp

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NDX1d - Nordex SE

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ NEDAPa - Nederland Apparatenfabriek

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ NEMd - Nemetschek SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ NEOENp - Neoen SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ NEOp - Neopost SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ NESNz - Nestle SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NESRd - Nestle SA

Optiver V.O.F. (Program Three)

➤ NESTEh - Neste Oyj

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NETBs - NetEnt AB

XTX Markets Limited (Program Three)

➤ NEXIm - Nexi SpA

Optiver V.O.F. (Program Two and Three)

➤ NEXI - National Express Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NEXp - Nexans SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NGL - National Grid PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NHHe - NH Hotel Group SA

XTX Markets Limited (Program Three)

➤ NHYo - Norsk Hydro ASA

Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ NIBCa - NIBC Holding NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ NIBEBs - Nibe Industrier AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ NKTc - NKT A/S

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NKp - Imerys SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NMCI - NMC Health PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ NNa - NN Group NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ NOBINS - Nobina AB

XTX Markets Limited (Program Three)

➤ NOBIs - Nobia AB

XTX Markets Limited (Program Three)

➤ NOEJd - Norma Group SE

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ NOKIAh - Nokia OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NOKIAp - Nokia OYJ

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ NOKIAs - Nokia OYJ

Optiver V.O.F. (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ NOSu - NOS SGPS SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NOTd - Novartis AG

Optiver V.O.F. (Program Three)

➤ NOVNZ - Novartis AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Hudson River Trading Europe Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Tower Research Capital Europe Limited (Program Two)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ NOVOBc - Novo Nordisk A/S

Optiver V.O.F. (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ NPROo - Norwegian Property ASA

Virtu Financial Ireland Ltd (Program Two)

➤ NSIa - NSI NV

Citadel Securities GCS (Ireland) Limited (Program Three)
 Virtu Financial Ireland Ltd (Program Two)

➤ NTGYe - Naturgy Energy Group SA

BNP Paribas Arbitrage SNC (Program One and Three)

➤ NTGL - Northgate PLC

Citadel Securities (Europe) Limited (Program Three)

➤ NVGu - Navigator Co SA/The

Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ NVTkl - Novatek PJSC

Citadel Securities (Europe) Limited (Program Three)

➤ NXIp - Nexity SA

Citadel Securities GCS (Ireland) Limited (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ NXTI - Next PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ NXUd - Nexus AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ NYRb - Nyrstar NV

Virtu Financial Ireland Ltd (Program Two)

➤ NZYBc - Novozymes A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ O1BCd - XING SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ O2Cd - Petro Welt Technologies AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ O2Dd - Telefonica Deutschland Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ OBELb - Orange Belgium SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ OCD0I - Ocado Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ OCla - OCI NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ODETp - Financiere de L'Odet SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ODHNz - Orascom Development Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ OERLz - OC Oerlikon Corp AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ OGZDI - Gazprom PJSC

Citadel Securities (Europe) Limited (Program Three)

➤ OHBd - OHB SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ OHLe - Obrascon Huarte Lain SA

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ OIZi - Origin Enterprises PLC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ OJMm - Openjobmetis Spa agenzia per il lavoro

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ OKDAVh - Oriola Oyj

Virtu Financial Ireland Ltd (Program Two)

➤ OMUI - Old Mutual Ltd

BNP Paribas Arbitrage SNC (Program One and Three)

➤ OMVv - OMV AG

Optiver V.O.F. (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ONTEXb - Ontex Group NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ OPNp - Groupe Open

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ORAp - Orange SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ORDla - Ordina NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ ORIs - Oriflame Holding AG

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ORKo - Orkla ASA

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ORNAVh - Orion Oyj

Virtu Financial Ireland Ltd (Program Two)

➤ ORNBVh - Orion Oyj

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ORONz - Orior AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ ORPp - Orpea

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ORSTEc - Orsted A/S

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ ORp - L'Oreal SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ OSBl - OneSavings Bank PLC

XTX Markets Limited (Program Three)

➤ OSP2d - USU Software AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ OSRd - OSRAM Licht AG

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ OTE1Vh - Outotec OYJ

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ OTELLo - Otello Corp ASA

Virtu Financial Ireland Ltd (Program Two)

➤ OUT1Vh - Outokumpu OYJ

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ OVSm - OVS SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ OXBl - Oxford Biomedica PLC

Citadel Securities (Europe) Limited (Program Three)

➤ OXIGl - Oxford Instruments PLC

Citadel Securities (Europe) Limited (Program Three)

➤ OXURb - Oxurion NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PA8d - Paion AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PAGEl - Pagegroup PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PAGl - Paragon Banking Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PAH3d - Porsche Automobil Holding SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PALv - Palfinger AG

Virtu Financial Ireland Ltd (Program Two)

➤ PANm - Panariagroup Industrie Ceramiche SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PARGz - Pargesa Holding SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ PATd - PATRIZIA AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PAYl - PayPoint PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ PBBd - Deutsche Pfandbriefbank AG

Societe Generale London Branch (Program Three)

➤ PCTl - Polar Capital Technology Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ PDGl - Pendragon PLC

Citadel Securities (Europe) Limited (Program Three)

➤ PEABBs - Peab AB

XTX Markets Limited (Program Three)

➤ PETSl - Pets at Home Group Plc

XTX Markets Limited (Program Three)

➤ PFCl - Petrofac Ltd

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ PFDl - Premier Foods PLC

Citadel Securities (Europe) Limited (Program Three)

➤ PFGI - Provident Financial PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PFVd - Pfeiffer Vacuum Technology AG

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ PGHNz - Partners Group Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ PGNd - Paragon GmbH & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PGS0 - PGS ASA

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PHAp - Pharmagest Inter@ctive

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PHIAa - Koninklijke Philips NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PHNXI - Phoenix Group Holdings PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ PHPl - Primary Health Properties PLC

Citadel Securities (Europe) Limited (Program Three)

➤ PHTMl - Photo-Me International PLC

Citadel Securities (Europe) Limited (Program Three)

➤ PIAm - Piaggio & C SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PIGp - Haulotte Group SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PINFm - Pininfarina SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PINl - Pantheon International PLC/The Fund

Citadel Securities (Europe) Limited (Program Three)

➤ PIRcm - Pirelli & C SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)

➤ PLlI - Perpetual Income and Growth Investment Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ PMOl - Premier Oil PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ PMz - Phoenix Mecano AG

Citadel Securities (Europe) Limited (Program Three)

➤ PNDORc - Pandora A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PNE3d - PNE AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PNL_a - PostNL NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PNL_I - Personal Assets Trust PLC/Fund

Citadel Securities (Europe) Limited (Program Three)

➤ PNN_I - Pennon Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ POG_I - Petropavlovsk PLC

Citadel Securities (Europe) Limited (Program Three)

➤ POLY_I - Polymetal International PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ POM_p - Cie Plastic Omnium SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ POST_v - Oesterreichische Post AG

Virtu Financial Ireland Ltd (Program Two)

➤ POXEL_p - Poxel SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ POY1V_h - Poyry OYJ

Virtu Financial Ireland Ltd (Program Two)

➤ PRC_p - Artprice.com

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PRIm - Prima Industrie SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PROXb - Proximus SADP

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PRSe - Promotora de Informaciones SA

Virtu Financial Ireland Ltd (Program Two)

➤ PRTm - Esprinet SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PRUl - Prudential PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PRYm - Prysmian SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PSANd - PSI Software AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PSGe - Prosegur Cia de Seguridad SA

XTX Markets Limited (Program Three)

➤ PSMd - ProSiebenSat.1 Media SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PSNI - Persimmon PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PSONI - Pearson PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PSPNz - PSP Swiss Property AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ PSTm - Poste Italiane SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ PTECI - Playtech Plc

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ PUBp - Publicis Groupe SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PUMd - Puma SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ PVLp - Plastivaloire

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ PWTNz - Panalpina Welttransport Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ PZCl - PZ Cussons PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ QIAd - QIAGEN NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ QLTI - Quilter PLC

BNP Paribas Arbitrage SNC (Program One and Three)

➤ QQI - QinetiQ Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ QSCd - QSC AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ R6Cd - Royal Dutch Shell PLC

Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Three)

➤ RAAd - Rational AG

Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ RACEm - Ferrari NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RAIWh - Raisio Oyj

XTX Markets Limited (Program Three)

➤ RALp - Rallye SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ RAMu - Ramada Investimentos E Industria SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ RANDa - Randstad NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RATOBS - Ratos AB

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RATl - Rathbone Brothers PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ RBIV - Raiffeisen Bank International AG

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RBREWc - Royal Unibrew A/S

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ RBSI - Royal Bank of Scotland Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RBTp - Robertet SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ RBL - Reckitt Benckiser Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RCOp - Remy Cointreau SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RCPI - RIT Capital Partners PLC/Fund

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RCSm - Rizzoli Corriere Della Sera Mediagroup SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ RDII - RDI REIT PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ RDSAa - Royal Dutch Shell PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RDSAl - Royal Dutch Shell PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RDSBa - Royal Dutch Shell PLC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ RDSBl - Royal Dutch Shell PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RDWl - Redrow PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ RECb - Recticel SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ REcm - Recordati SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RECo - REC Silicon ASA

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ REEe - Red Electrica Corp SA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ RELI - RELX PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RENEu - REN - Redes Energeticas Nacionais SGPS SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RENa - RELX PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ REPe - Repsol SA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RESb - Resilux

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ RETb - Retail Estates NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ REYm - Reply SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ RFp - Eurazeo SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RHKd - RHOEN-KLINIKUM AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RHMd - Rheinmetall AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RIENZ - Rieter Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ RIGDI - Reliance Industries Ltd

Citadel Securities (Europe) Limited (Program Three)

➤ RINp - Vilmorin & Cie SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ RIOI - Rio Tinto PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ Rlp - Pernod Ricard SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RMGI - Royal Mail PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ RMsP - Hermes International

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RML - Rightmove PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RNKl - Rank Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ RNOp - Renault SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ROCKBc - Rockwool International A/S

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ ROGz - Roche Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RORl - Rotork PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ROTHp - Rothschild & Co

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ROz - Roche Holding AG

Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ RPCI - RPC Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ RPSI - RPS Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ RRTLd - RTL Group SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ RRI - Rolls-Royce Holdings PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RSAI - RSA Insurance Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RSWI - Renishaw PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ RTNI - Restaurant Group PLC/The

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RTOL - Rentokil Initial PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RUIp - Rubis SCA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RWAYm - RAI Way SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ RWE3d - RWE AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ RWEed - RWE AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RWII - Renewi PLC

Citadel Securities (Europe) Limited (Program Three)

➤ RXLp - Rexel SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ RXp - Recylex SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ RY4Ci - Ryanair Holdings PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ RYAL - Ryanair Holdings PLC

Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ S32l - South32 Ltd

XTX Markets Limited (Program Three)

➤ S92d - SMA Solar Technology AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SAA1Vh - Sanoma OYJ

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SAABBs - Saab AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SABe - Banco de Sabadell SA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SABm - Sabaf SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SAFp - Safran SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SAGAL - Saga PLC

XTX Markets Limited (Program Three)

➤ SAHNz - Schaffner Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ SALMo - Salmar ASA

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SALm - Salini Impregilo SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SAMPOh - Sampo Oyj

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SANDs - Sandvik AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SANNz - Santhera Pharmaceuticals Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ SANTd - S&T AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SANE - Banco Santander SA

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SANp - Sanofi

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Optiver V.O.F. (Program Two and Three)
 Societe Generale London Branch (Program Three)
 Tower Research Capital Europe BV (Program Two)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ SAPd - SAP SE

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Jump Trading Europe B.V. (Program Three)
 Societe Generale London Branch (Program Three)
 Tower Research Capital Europe BV (Program Two)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ SASs - SAS AB

XTX Markets Limited (Program Three)

➤ SAXd - Stroer SE & Co KGaA

Societe Generale London Branch (Program Three)
 XTX Markets Limited (Program Three)

➤ SBIDl - State Bank of India

Citadel Securities (Europe) Limited (Program Three)

➤ SBMOa - SBM Offshore NV

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ SBOv - Schoeller-Bleckmann Oilfield Equipment AG

Virtu Financial Ireland Ltd (Program Two)

➤ SBRYl - J Sainsbury PLC

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ SBSd - STRATEC SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SBTp - Oeneo SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SCABs - Svenska Cellulosa AB SCA

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SCHAo - Schibsted ASA

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SCHNz - Schindler Holding AG

Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SCHPp - Seche Environnement SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SCHPz - Schindler Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SCINl - Scottish Investment Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ SCMNz - Swisscom AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SCRp - SCOR SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SCYRe - Sacyr SA

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SDFd - K+S AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SDGp - Synergie SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SDLI - SDL PLC

Virtu Financial Ireland Ltd (Program Two)

➤ SDPI - Schroder AsiaPacific Fund PLC

Citadel Securities (Europe) Limited (Program Three)

➤ SDRCl - Schroders PLC

Citadel Securities (Europe) Limited (Program Three)

➤ SDRYl - Superdry PLC

Virtu Financial Ireland Ltd (Program Two)

➤ SDRl - Schroders PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SEBAs - Skandinaviska Enskilda Banken AB

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SECUBs - Securitas AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SEMu - Semapa-Sociedade de Investimento e Gestao

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SEMv - Semperit AG Holding

Virtu Financial Ireland Ltd (Program Two)

➤ SESGp - SES SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SESLp - SES-imagotag SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SEVp - Suez

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SFERm - Salvatore Ferragamo SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SFLm - Safilo Group SpA

Virtu Financial Ireland Ltd (Program Two)

➤ SFQd - SAF-Holland SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SFSNz - SFS Group AG

XTX Markets Limited (Program Three)

➤ SFZNz - Siegfried Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ SGCl - Stagecoach Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SGEI - Sage Group PLC/The

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SGKNz - St Galler Kantonalbank AG

Citadel Securities (Europe) Limited (Program Three)

➤ SGLd - SGL Carbon SE

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SGOp - Cie de Saint-Gobain

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SGREe - Siemens Gamesa Renewable Energy SA

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SGROl - Segro PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SGRm - SAES Getters SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SGSNz - SGS SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SGM - SAES Getters SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SHAd - Schaeffler AG

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SHBAs - Svenska Handelsbanken AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SHBl - Shaftesbury PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SHFd - SNP Schneider-Neureither & Partner SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SHII - SIG PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SHLd - Siemens Healthineers AG

BNP Paribas Arbitrage SNC (Program One and Three)

➤ SHOTs - Scandic Hotels Group AB

XTX Markets Limited (Program Three)

➤ SHURb - Shurgard Self Storage SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SIAI - Soco International PLC

Citadel Securities (Europe) Limited (Program Three)

➤ SIEd - Siemens AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SIFGa - SIF Holding NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SIGHTp - GenSight Biologics SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SIKAz - Sika AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)

➤ SIMc - SimCorp A/S

Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SIOEb - Sioen Industries NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SIPb - Sipef NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SISd - First Sensor AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SISm - Societa Iniziative Autostradali e Servizi SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SIX2d - Sixt SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SIX3d - Sixt SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SK3i - Smurfit Kappa Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SKABs - Skanska AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SKBd - Koenig & Bauer AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SKFBs - SKF AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SKG1 - Smurfit Kappa Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SKp - SEB SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SLA1 - Standard Life Aberdeen PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SLBp - Schlumberger Ltd

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SLHNz - Swiss Life Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SLIGRa - Sligro Food Group NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SLTd - Schaltbau Holding AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SMCPp - SMCP SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SMDS1 - DS Smith PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SMHNd - SUESS MicroTec SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SMINl - Smiths Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SMPL - St Modwen Properties PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ SMSNI - Samsung Electronics Co Ltd

Citadel Securities (Europe) Limited (Program Three)

➤ SMTI - Scottish Mortgage Investment Trust PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SMWHL - WH Smith PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SNBNz - Schweizerische Nationalbank

Citadel Securities (Europe) Limited (Program Three)

➤ SNGd - Singulus Technologies AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SNRI - Senior PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ SNI - Smith & Nephew PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SOBIs - Swedish Orphan Biovitrum AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SOFb - Sofina SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SOIp - SOITEC

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ SOLBb - Solvay SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SOLm - SOL SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SONu - Sonae SGPS SA

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SOONz - Sonova Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SOPHl - Sophos Group PLC

XTX Markets Limited (Program Three)

➤ SOPp - Sopra Steria Group

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SOWd - Software AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SOM - Sogefi SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SOP - Somfy SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SPDI - Sports Direct International PLC

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SPIEp - SPIE SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ SPII - Spire Healthcare Group PLC

XTX Markets Limited (Program Three)

➤ SPMm - Saipem SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SPRd - Axel Springer SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SPSNz - Swiss Prime Site AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SPTI - Spirent Communications PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ SPXI - Spirax-Sarco Engineering PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SQIp - Sqli SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SQNz - Swissquote Group Holding SA

Citadel Securities (Europe) Limited (Program Three)

➤ SRBANO - SpareBank 1 SR-Bank ASA

XTX Markets Limited (Program Three)

➤ SRCGz - Sunrise Communications Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SREIL - Schroder Real Estate Investment Trust Ltd

Citadel Securities (Europe) Limited (Program Three)

➤ SRENz - Swiss Re AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SRGm - Snam SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SRIm - Servizi Italia SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SRPI - Serco Group PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SRPp - SRP Groupe SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ SRSm - Saras SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SRT3d - Sartorius AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ SRTd - Sartorius AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SSABAs - SSAB AB

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SSABBs - SSAB AB

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SSAI - Sistema PJSFC

Citadel Securities (Europe) Limited (Program Three)

➤ SSEI - SSE PLC

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Hudson River Trading Europe Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Tower Research Capital Europe Limited (Program Two)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ SSLm - Societa Sportiva Lazio SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SSPGI - SSP Group Plc

BNP Paribas Arbitrage SNC (Program One and Three)
 XTX Markets Limited (Program Three)

➤ ST5d - Steico SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ STANI - Standard Chartered PLC

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ STBo - Storebrand ASA

Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ STERVh - Stora Enso OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
 Optiver V.O.F. (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ STERs - Stora Enso OYJ

Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ STFp - Stef SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ STGc - Scandinavian Tobacco Group A/S

Hudson River Trading Europe Limited (Program Three)

➤ STHRl - SThree PLC

Citadel Securities (Europe) Limited (Program Three)

➤ STJl - St James's Place PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ STLNz - Schmolz + Bickenbach AG

Citadel Securities (Europe) Limited (Program Three)

➤ STMNz - Straumann Holding AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ STMd - Stabilus SA

XTX Markets Limited (Program Three)

➤ STMm - STMMicroelectronics NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ STMp - STMMicroelectronics NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ STO3d - STO SE & Co KGaA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ STOBI - Stobart Group Ltd

XTX Markets Limited (Program Three)

➤ STRNa - Stern Groep NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ STRv - Strabag SE

Virtu Financial Ireland Ltd (Program Two)

➤ STSI - Securities Trust of Scotland PLC

Citadel Securities (Europe) Limited (Program Three)

➤ SUBCo - Subsea 7 SA

Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SUNz - Sulzer AG

Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ SURd - Surteco Group SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SUP - Schneider Electric SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SVSTI - Severstal PJSC

XTX Markets Limited (Program Three)

➤ SVSI - Savills PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ SVTL - Severn Trent PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SWEDAs - Swedbank AB

BNP Paribas Arbitrage SNC (Program One and Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SWMAs - Swedish Match AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SWPp - Sword Group

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SWTQz - Schweiter Technologies AG

XTX Markets Limited (Program Three)

➤ SWp - Sodexo SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SXSl - Spectris PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SXXl - Sirius Minerals PLC

Citadel Securities (Europe) Limited (Program Three)

➤ SY1d - Symrise AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SYDBc - Sydbank A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SYNTI - Synthomer PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ SYTd - Softing AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ SZGd - Salzgitter AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ SZUd - Suedzucker AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ T70i - Total Produce PLC

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TALKI - TalkTalk Telecom Group PLC

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TAMNz - Tamedia AG

Citadel Securities (Europe) Limited (Program Three)

➤ TATEL - Tate & Lyle PLC

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TCAPI - TP ICAP PLC

Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TCGI - Thomas Cook Group PLC

Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TCHp - Technicolor SA

Citadel Securities GCS (Ireland) Limited (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TECNz - Tecan Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 XTX Markets Limited (Program Three)

➤ TEDI - Ted Baker PLC

XTX Markets Limited (Program Three)

➤ TEFc - Telefonica SA

BNP Paribas Arbitrage SNC (Program One and Three)
 Societe Generale London Branch (Program Three)
 Tower Research Capital Europe BV (Program Two)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TEGd - TAG Immobilien AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TEL2Bs - Tele2 AB

BNP Paribas Arbitrage SNC (Program One and Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TELIAh - Telia Co AB

Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TELIAs - Telia Co AB

BNP Paribas Arbitrage SNC (Program One and Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TELo - Telenor ASA

Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TEMNz - Temenos AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 XTX Markets Limited (Program Three)

➤ TEMl - Templeton Emerging Markets Investment Trust PLC

Citadel Securities (Europe) Limited (Program Three)
 Virtu Financial Ireland Ltd (Program Two)

➤ TENm - Tenaris SA

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Optiver V.O.F. (Program Two and Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)

➤ TEPl - Telecom Plus PLC

Citadel Securities (Europe) Limited (Program Three)
 XTX Markets Limited (Program Three)

➤ TEPp - Teleperformance

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)

➤ TESBb - Tessengerlo Group SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TF1p - Television Francaise 1

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TGSo - TGS NOPEC Geophysical Co ASA

Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TGYMm - Technogym SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ THEPp - Thermador Groupe

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ THULEs - Thule Group AB

XTX Markets Limited (Program Three)

➤ TIK1Vh - Tikkurila Oyj

XTX Markets Limited (Program Three)

➤ TIMd - Zeal Network SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TINCb - TINC Comm VA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TIPm - Tamburi Investment Partners SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TISm - Tiscali SpA

Virtu Financial Ireland Ltd (Program Two)

➤ TITRm - Telecom Italia SpA/Milano

Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TITm - Telecom Italia SpA/Milano

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Optiver V.O.F. (Program Two and Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TKAd - thyssenkrupp AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)
 Hudson River Trading Europe Limited (Program Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TKAv - Telekom Austria AG

Virtu Financial Ireland Ltd (Program Two)

➤ TKOp - Tikehau Capital SCA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TKTTp - Tarkett SA

Citadel Securities GCS (Ireland) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 XTX Markets Limited (Program Three)

➤ TKWYa - Takeaway.com NV

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TL5e - Mediaset Espana Comunicacion SA

BNP Paribas Arbitrage SNC (Program One and Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ TLGd - TLG Immobilien AG

XTX Markets Limited (Program Three)

➤ TLWI - Tullow Oil PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Optiver V.O.F. (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TLXd - Talanx AG

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TMPLI - Temple Bar Investment Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ TNETb - Telenet Group Holding NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TNXTm - Tinexta Spa

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TODm - Tod's SpA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TOM2a - TomTom NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TOMo - Tomra Systems ASA

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TOPc - Topdanmark A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TPEd - PVA TePla AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TPKI - Travis Perkins PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TRELBs - Trelleborg AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TREe - Tecnicas Reunidas SA

BNP Paribas Arbitrage SNC (Program One and Three)
Virtu Financial Ireland Ltd (Program Two)

➤ TRIp - Trigano SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ TRNm - Terna Rete Elettrica Nazionale SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TRYGc - Tryg A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TRYI - TR Property Investment Trust PLC - Ordinary Shares

Citadel Securities (Europe) Limited (Program Three)

➤ TSCOL - Tesco PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TTId - Tom Tailor Holding SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TTKd - Takkt AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TTR1d - Technotrans SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TUBb - Financiere de Tubize SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ TUI1d - TUI AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TUII - TUI AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ TWEKAa - TKH Group NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TWI - Taylor Wimpey PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ TXTm - TXT e-solutions SpA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ UAll - U & I Group PLC

Citadel Securities (Europe) Limited (Program Three)

➤ UBIm - Unione di Banche Italiane SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UBIp - Ubisoft Entertainment SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UBSGz - UBS Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
XTX Markets Limited (Program Three)

➤ UBXNz - u-blox Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ UCBb - UCB SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UCGm - UniCredit SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UDGL - UDG Healthcare PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ UGp - Peugeot SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UHRNz - Swatch Group AG/The

Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ UHRz - Swatch Group AG/The

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ULEl - Ultra Electronics Holdings PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ULVRI - Unilever PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UMIb - Umicore SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UN01d - Uniper SE

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)

➤ UNAA - Unilever NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UNIAa - Unilever NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ UNIm - Unipol Gruppo SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UPMh - UPM-Kymmene OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Optiver V.O.F. (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UPONOh - Uponor OYJ

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ URWa - Unibail-Rodamco-Westfield

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ USm - UnipolSai Assicurazioni SpA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Optiver V.O.F. (Program Two and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UTDId - United Internet AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ UTGl - UNITE Group PLC/The

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ UUl - United Utilities Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ V3Vd - VITA 34 AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ V6Cd - Viscom AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VACNz - VAT Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)

➤ VACp - Pierre & Vacances SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VALMTh - Valmet OYJ

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ VALNz - Valora Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ VANb - Van de Velde NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VASTNa - Vastned Retail NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ VATNz - Valiant Holding AG

XTX Markets Limited (Program Three)

➤ VBKd - VERBIO Vereinigte BioEnergie AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VCTI - Victrex PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VCTp - Vicat SA

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VECl - Vectura Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ VERv - Verbund AG

Virtu Financial Ireland Ltd (Program Two)

➤ VETOp - Vetoquinol SA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VETz - Vetropack Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ VGPb - VGP NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VIB3d - Villeroy & Boch AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VIEp - Veolia Environnement SA

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➤ VIFNz - Vifor Pharma AG

BNP Paribas Arbitrage SNC (Program One and Three)
 Citadel Securities (Europe) Limited (Program Three)
 Societe Generale London Branch (Program Three)
 XTX Markets Limited (Program Three)

➤ VIGv - Vienna Insurance Group AG Wiener Versicherung Gruppe

Virtu Financial Ireland Ltd (Program Two)

➤ VIHd - VIB Vermoegen AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VIRPp - Virbac SA

Citadel Securities GCS (Ireland) Limited (Program Three)
 Virtu Financial Ireland Ltd (Program Two)

➤ VISE - Viscofan SA

BNP Paribas Arbitrage SNC (Program One and Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ VIVp - Vivendi SA

BNP Paribas Arbitrage SNC (Program One and Three)
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 Optiver V.O.F. (Program Two and Three)
 Societe Generale London Branch (Program Three)
 Virtu Financial Ireland Ltd (Program Two)
 XTX Markets Limited (Program Three)

➤ VKp - Vallourec SA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VLAp - Valneva SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VLKa - Van Lanschot Kempen NV

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VNAd - Vonovia SE

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
XTX Markets Limited (Program Three)

➤ VODI - Vodafone Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VOEv - voestalpine AG

Optiver V.O.F. (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VOLVAs - Volvo AB

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VOLVBs - Volvo AB

BNP Paribas Arbitrage SNC (Program One and Three)
Hudson River Trading Europe Limited (Program Three)
Societe Generale London Branch (Program Three)
Tower Research Capital Europe BV (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VONNz - Vontobel Holding AG

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ VOSd - Vossloh AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ VOW3d - Volkswagen AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VOWd - Volkswagen AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VPBNz - VP Bank AG

Citadel Securities (Europe) Limited (Program Three)

➤ VPKa - Koninklijke Vopak NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VSVSl - Vesuvius PLC

Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VTCl - Vitec Group PLC/The

Citadel Securities (Europe) Limited (Program Three)

➤ VWSc - Vestas Wind Systems A/S

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ VZNz - VZ Holding AG

Citadel Securities (Europe) Limited (Program Three)

➤ WACd - Wacker Neuson SE

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ WAFd - Siltronic AG

BNP Paribas Arbitrage SNC (Program One and Three)
XTX Markets Limited (Program Three)

➤ WALLBs - Wallenstam AB

XTX Markets Limited (Program Three)

➤ WAVEp - Wavestone

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ WCHd - Wacker Chemie AG

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ WDIId - Wirecard AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ WDPb - Warehouses De Pauw CVA

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ WEHBb - Wereldhave Belgium Comm VA

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ WEIRl - Weir Group PLC/The

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ WESa - Wessanen

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ WGI - John Wood Group PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Optiver V.O.F. (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ WHAa - Wereldhave NV

Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ WIEv - Wienerberger AG

Virtu Financial Ireland Ltd (Program Two)

➤ WIZZl - Wizz Air Holdings Plc

XTX Markets Limited (Program Three)

➤ WKBNz - Walliser Kantonalbank

Citadel Securities (Europe) Limited (Program Three)

➤ WKLa - Wolters Kluwer NV

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ WKPl - Workspace Group PLC

Citadel Securities (Europe) Limited (Program Three)
XTX Markets Limited (Program Three)

➤ WL6d - Heidelberg Pharma AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ WLNp - Worldline SA/France

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities GCS (Ireland) Limited (Program Three)

➤ WMHL - William Hill PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ WPPI - WPP PLC

BNP Paribas Arbitrage SNC (Program One and Three)
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Societe Generale London Branch (Program Three)
Tower Research Capital Europe Limited (Program Two)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ WRT1Vh - Wartsila OYJ Abp

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ WSUd - Washtec AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ WTANL - Witan Investment Trust PLC

Citadel Securities (Europe) Limited (Program Three)

➤ WTBL - Whitbread PLC

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ WUWd - Wuestenrot & Wuerttembergische AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ WWHL - Worldwide Healthcare Trust PLC/Fund

Citadel Securities (Europe) Limited (Program Three)

➤ XFABp - X-Fab Silicon Foundries SE

Citadel Securities GCS (Ireland) Limited (Program Three)
Hudson River Trading Europe Limited (Program Three)

➤ [XILp - Xilam Animation SA](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [XIORb - Xior Student Housing NV](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [XPRm - Exprivia SpA](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [YARo - Yara International ASA](#)

Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ [YITh - YIT OYJ](#)

Virtu Financial Ireland Ltd (Program Two)

➤ [YPSNz - Ypsomed Holding AG](#)

Citadel Securities (Europe) Limited (Program Three)

➤ [YSNd - Secunet Security Networks AG](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [YZAi - Aryzta AG](#)

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ [ZAGv - Zumtobel Group AG](#)

Virtu Financial Ireland Ltd (Program Two)

➤ [ZALd - Zalando SE](#)

BNP Paribas Arbitrage SNC (Program One and Three)
Societe Generale London Branch (Program Three)

➤ [ZGz - Zuger Kantonalbank AG](#)

Citadel Securities (Europe) Limited (Program Three)

➤ [ZIL2d - ElringKlinger AG](#)

Citadel Securities GCS (Ireland) Limited (Program Three)
Virtu Financial Ireland Ltd (Program Two)

➤ Z01d - zooplus AG

Citadel Securities GCS (Ireland) Limited (Program Three)

➤ ZOTe - Zardoya Otis SA

Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ZURNz - Zurich Insurance Group AG

BNP Paribas Arbitrage SNC (Program One and Three)
Citadel Securities (Europe) Limited (Program Three)
Societe Generale London Branch (Program Three)
Virtu Financial Ireland Ltd (Program Two)
XTX Markets Limited (Program Three)

➤ ZVm - Zignago Vetro SpA

Citadel Securities GCS (Ireland) Limited (Program Three)