

DB Short Term HY Bond Index, Constituents Selection May 2022

This report shows the upcoming constituent list for DB Short Term High Yield Bond Index

Bloomberg ticker: DBLQSTHY <Index>

For the quarter from June 2022 to August 2022

For detailed index rules please refer to the index Description

ISIN	Weight	Preliminary Notional
USU0242AAD47	0.05%	0.00081
USU0125LAD20	0.24%	0.00325
XS1854172043	0.23%	0.00304
US00101JAH95	0.24%	0.00319
USU7415PAB14	0.24%	0.00320
USP3711HAF66	0.05%	0.00208
USP06076AA49	0.25%	0.00339
USP1000CAA29	0.25%	0.00385
USU0085GAD17	0.23%	0.00349
USM0375YAK49	0.23%	0.00317
XS1210422074	0.05%	0.00077
USU0187NAA91	0.05%	0.00070
USP69895AA12	0.24%	0.00317
US02005NAV29	0.23%	0.00299
US00164VAD55	0.24%	0.00319
XS1207654853	0.05%	0.00070
XS1617833584	0.20%	0.00546
USU3144HAA87	0.23%	0.00314
USQ0102FAD70	0.26%	0.00361
US030981AK06	0.05%	0.00073
US030981AH76	0.23%	0.00313
XS0910932788	0.23%	0.00315
USG04586AS53	0.05%	0.00073
USU0389LAD39	0.05%	0.00070
USU0389LAF86	0.05%	0.00070
USU2214YAB66	0.05%	0.00070
USU0424NAA29	0.23%	0.00307
USU0449JAA26	0.05%	0.00102
US126307AH04	0.23%	0.00318
US12686CBB46	0.24%	0.00314
US73179PAK21	0.23%	0.00309
USU73150AH41	0.05%	0.00070
USP0606PAC97	0.22%	0.00311
XS1763161012	0.30%	0.00608
XS1678463784	0.23%	0.00321
XS0903465127	0.23%	0.00311
XS1044540547	0.23%	0.00303
USV04008AA29	0.23%	0.00310
USU0551UAA17	0.22%	0.00346
XS2092941330	0.24%	0.00320
BE6254003252	0.24%	0.00307
US075896AA80	0.18%	0.00327
USC10602BF38	0.22%	0.00310
USC10602BA41	0.05%	0.00075
XS2017807301	0.24%	0.00311
USP09252AC47	0.23%	0.00309
USP16259AH99	0.23%	0.00309

US05964TAQ22	0.24%	0.00318
USP1024TAN92	0.05%	0.00072
XS1405775880	0.23%	0.00307
US05508RAE62	0.05%	0.00077
XS0956406135	0.24%	0.00310
US05968LAM46	0.24%	0.00336
USP15383AC95	0.24%	0.00318
US05968LAH50	0.24%	0.00313
XS1789474274	0.23%	0.00313
US058498AS54	0.23%	0.00315
USP14486AM92	0.23%	0.00306
USP14486AJ63	0.23%	0.00300
USU12214AC30	0.23%	0.00320
USU12214AD13	0.05%	0.00076
US733174AK28	0.23%	0.00305
XS1175223699	0.18%	0.00423
USP1905CAE05	0.23%	0.00312
US105756BU30	0.24%	0.00321
US105756BV13	0.24%	0.00310
US105756BF62	0.23%	0.00272
US105756AR10	0.23%	0.00275
USP10475AA22	0.24%	0.00315
XS1498440079	0.23%	0.00318
XS2050614796	0.23%	0.00320
US12803X2B68	0.24%	0.00318
USV3856JAA17	0.05%	0.00073
USP20058AC08	0.24%	0.00334
US20259DAA54	0.23%	0.00292
USU1289BAA09	0.05%	0.00074
USP32086AR44	0.21%	0.00474
US12513GBA67	0.24%	0.00306
US226373AP35	0.05%	0.00071
XS1778929478	0.23%	0.00311
USU1703HAA50	0.05%	0.00075
USU12501AW95	0.24%	0.00319
USU1714UAA35	0.24%	0.00319
USU13077AJ86	0.05%	0.00070
US212015AN15	0.24%	0.00315
US212015AL58	0.23%	0.00313
USU18519AD79	0.23%	0.00323
USU18510AD60	0.23%	0.00311
US201723AK97	0.23%	0.00314
USP2205LAC92	0.24%	0.00291
USU2036YAC04	0.23%	0.00321
USU17432AD42	0.25%	0.00336
USU1358NAA01	0.23%	0.00319
USU17176AJ46	0.05%	0.00068
US13123XAT90	0.23%	0.00320

USU1303XAF34	0.05%	0.00066
USU20608AD44	0.24%	0.00299
USP3699PGB78	0.24%	0.00317
USP3699PGE18	0.05%	0.00072
XS1720216388	0.27%	0.00390
XS2227909640	0.26%	0.00385
XS2120092882	0.28%	0.00381
USU20817AC34	0.24%	0.00348
US527298BH52	0.05%	0.00071
XS2010038573	0.24%	0.00324
USU15118AA73	0.24%	0.00337
US247361ZU54	0.23%	0.00328
US247361ZP69	0.24%	0.00318
XS1807408486	0.24%	0.00312
USL22848AB82	0.05%	0.00072
US253651AC78	0.11%	0.00321
US251525AP63	0.05%	0.00071
USG2763RAA44	0.22%	0.00312
US23311VAD91	0.24%	0.00316
IL0011677668	0.24%	0.00317
USY2056PAA40	0.22%	0.00304
US81721MAK53	0.22%	0.00327
US25470XAL91	0.23%	0.00314
US25470XAW56	0.21%	0.00321
USK22628AA73	0.24%	0.00317
USP36035AB29	0.19%	0.00427
USP3579EBD87	0.23%	0.00306
USL5831KAA45	0.23%	0.00313
US109641AG55	0.23%	0.00321
USU6223WAB01	0.22%	0.00310
US279158AK55	0.23%	0.00325
US279158AC30	0.23%	0.00304
USG4003HAA26	0.23%	0.00321
XS2079842485	0.22%	0.00316
XS1775617209	0.23%	0.00309
XS2176895469	0.22%	0.00315
XS1953055875	0.22%	0.00307
XS1504948693	0.22%	0.00308
USP22835AA30	0.23%	0.00325
USG30407AA14	0.20%	0.00328
US29336UAB35	0.23%	0.00318
IL0011736571	0.23%	0.00324
USU2928LAA36	0.24%	0.00316
USU29298AB91	0.23%	0.00312
XS1827041721	0.23%	0.00317
USC33227AA49	0.24%	0.00323
XS0958072240	0.23%	0.00322
XS1187065443	0.23%	0.00324

XS1151974877	0.20%	0.00414
XS1826862556	0.22%	0.00292
US26885BAA89	0.24%	0.00329
US26885BAD29	0.24%	0.00324
US30227KAE91	0.05%	0.00070
US345397B850	0.23%	0.00337
US345397A290	0.24%	0.00322
US345397ZU05	0.24%	0.00320
US345397A787	0.23%	0.00321
US34540XAB91	0.24%	0.00319
US345397ZX44	0.23%	0.00318
US345397ZB24	0.24%	0.00321
US345397ZQ92	0.23%	0.00305
US345370CW84	0.05%	0.00064
US35671DAZ87	0.24%	0.00315
US35671DBL82	0.23%	0.00308
US337932AK39	0.05%	0.00076
XS1711581337	0.24%	0.00321
XS1692930404	0.23%	0.00306
USC3535CAH19	0.23%	0.00313
USC3535CAF52	0.24%	0.00316
USC3535CAG36	0.05%	0.00069
USQ3919KAK71	0.23%	0.00312
XS2270462794	0.24%	0.00511
USU31333AA20	0.22%	0.00319
USU31333AB03	0.05%	0.00077
USY267BJGT59	0.05%	0.00363
USU34835AA35	0.24%	0.00314
USU12589AC86	0.05%	0.00070
USG42045AB32	0.24%	0.00317
USM8931TAF68	0.23%	0.00313
XS1576037284	0.23%	0.00311
US37185LAF94	0.24%	0.00326
US36159RAG83	0.24%	0.00333
USU38406AB75	0.23%	0.00312
USL43228AA06	0.23%	0.00316
XS1081321595	0.16%	0.00427
XS1760383577	0.20%	0.00406
USY3004WAB82	0.23%	0.00313
USL4441RAA43	0.23%	0.00360
US38869PAM68	0.23%	0.00314
US38869PAL85	0.24%	0.00319
USV3854PAA94	0.24%	0.00323
USV3855GAA86	0.23%	0.00320
USP04559AL70	0.25%	0.00331
USC39555AC87	0.23%	0.00320
US382550BH30	0.05%	0.00064
USU2467RAC35	0.05%	0.00070

XS1141043296	0.24%	0.00329
XS1586385178	0.23%	0.00317
USU24437AD43	0.23%	0.00317
US404119BR91	0.24%	0.00307
XS1309493630	0.23%	0.00312
USU8603MAC65	0.05%	0.00073
USU4328RAD62	0.05%	0.00070
XS2015214831	0.23%	0.00315
US013817AW16	0.23%	0.00305
US443201AA64	0.05%	0.00066
US448579AL64	0.24%	0.00328
US448579AN21	0.23%	0.00328
US451102BW60	0.24%	0.00322
USG4863AAC20	0.24%	0.00308
XS2113454115	0.24%	0.00326
USY39694AA51	0.23%	0.00323
USQ4935RAA25	0.23%	0.00303
USV4819FAA31	0.22%	0.00315
USG47661AA43	0.23%	0.00316
XS0940700668	0.24%	0.00327
XS2301399205	0.23%	0.00313
XS1662407862	0.23%	0.00311
USP5880UAB63	0.24%	0.00324
XS0847042024	0.23%	0.00316
XS1578203462	0.23%	0.00317
XS1003016018	0.24%	0.00311
US46556KAA43	0.24%	0.00323
US46556KAB26	0.24%	0.00325
US46556MAJ18	0.23%	0.00312
USU0452AAE74	0.05%	0.00070
XS2049728004	0.05%	0.00073
XS1981202861	0.23%	0.00307
US655664AX82	0.24%	0.00335
US48666KAR05	0.23%	0.00306
US48666KAV17	0.23%	0.00306
XS1379145656	0.23%	0.00314
XS1961766596	0.05%	0.00072
XS1028952403	0.21%	0.00304
XS2010040983	0.14%	0.00347
USN4717BAD84	0.20%	0.00357
USU5006LAD56	0.24%	0.00325
XS1379107219	0.24%	0.00319
USU53039AG58	0.05%	0.00070
XS1117297355	0.05%	0.00074
XS2010198260	0.24%	0.00321
US16412XAC92	0.05%	0.00066
US16412XAD75	0.24%	0.00297
USF6456QAA07	0.05%	0.00071

US516806AF38	0.25%	0.00315
XS2099273737	0.23%	0.00314
US156700AZ93	0.05%	0.00073
US156700AX46	0.24%	0.00309
US156700BA34	0.23%	0.00303
US517834AG23	0.23%	0.00328
USU53897AE10	0.23%	0.00318
HK0000536521	0.25%	0.00370
USU18891AA62	0.23%	0.00316
XS0850020586	0.24%	0.00316
US577081AY82	0.23%	0.00319
USU8300GAA95	0.24%	0.00299
USU1600NAA64	0.05%	0.00070
USY59505AA82	0.23%	0.00320
XS2071397850	0.22%	0.00315
US552953CC35	0.23%	0.00309
US552953CG49	0.05%	0.00070
USY6142GAB96	0.23%	0.00338
USU57363AE08	0.24%	0.00314
XS2090080172	0.24%	0.00319
USY6142NAB48	0.23%	0.00311
USY6142NAA64	0.22%	0.00287
USU60734AG28	0.23%	0.00308
USC58437AA91	0.25%	0.00337
USP8S12UAA35	0.25%	0.00406
USU90984AE24	0.05%	0.00069
XS1128996425	0.23%	0.00315
USC67111AH49	0.23%	0.00317
USC67111AG65	0.05%	0.00073
US62828M2B67	0.23%	0.00316
US62828M2A84	0.23%	0.00314
US59151KAK43	0.23%	0.00315
XS1901860160	0.23%	0.00299
US78442FEQ72	0.24%	0.00318
US63938CAB46	0.23%	0.00310
US78442FET12	0.23%	0.00307
US63938CAE84	0.23%	0.00302
USU6500TAF22	0.24%	0.00321
USG64252AA01	0.05%	0.00072
US64110LAG14	0.23%	0.00298
US64110LAL09	0.23%	0.00294
XS0944707222	0.23%	0.00311
US62913TAM45	0.05%	0.00090
US62913TAJ16	0.22%	0.00330
XS2325213689	0.22%	0.00317
USC79188AA31	0.23%	0.00316
USU78585AC73	0.05%	0.00070
USL67449AB15	0.24%	0.00324

US65158NAB82	0.23%	0.00306
XS1055787680	0.23%	0.00309
XS1061043011	0.23%	0.00303
USU6S19GAC10	0.23%	0.00313
USU68337AK75	0.24%	0.00318
US675232AA07	0.23%	0.00325
US85172FAL31	0.23%	0.00310
US85172FAP45	0.23%	0.00307
US85172FAM14	0.05%	0.00070
US85172FAF62	0.23%	0.00295
XS1750113406	0.24%	0.00319
XS1944412664	0.24%	0.00316
USU36251AA19	0.21%	0.00319
USP73699BH55	0.19%	0.00385
XS1805474951	0.23%	0.00310
US674599CW33	0.24%	0.00328
US674599DB86	0.24%	0.00299
USP7873PAE62	0.25%	0.00333
USU70453AE28	0.05%	0.00068
US69318UAB17	0.23%	0.00321
US724479AJ97	0.22%	0.00312
USU1719MAB47	0.24%	0.00325
US71654QBG64	0.24%	0.00323
US71654QBV32	0.23%	0.00325
US71654QCD25	0.23%	0.00311
US71654QBH48	0.24%	0.00316
XS1747548532	0.24%	0.00323
US71647NAV10	0.24%	0.00308
US71647NAM11	0.23%	0.00298
USU71355AD00	0.05%	0.00069
USY7140VAA80	0.23%	0.00330
XS1056560920	0.17%	0.00304
USU8925TAB45	0.22%	0.00291
USN20137AD23	0.23%	0.00388
US714295AC63	0.24%	0.00323
USU7446HAA42	0.24%	0.00326
XS1696810669	0.23%	0.00321
USC96225AA22	0.24%	0.00310
US74819RAP10	0.24%	0.00316
XS1959391019	0.23%	0.00299
US747262AK96	0.23%	0.00315
US747262AU78	0.22%	0.00331
US747262AS23	0.22%	0.00315
USC6900PAH22	0.05%	0.00069
USU74987AD75	0.05%	0.00073
USC7892GAA51	0.24%	0.00319
US780153AU63	0.24%	0.00318
USV7780TAD55	0.24%	0.00305

USV7780TAB99	0.24%	0.00300
US750236AU59	0.23%	0.00317
US750236AX98	0.05%	0.00069
US761519BF37	0.12%	0.00740
USU75111AK72	0.05%	0.00076
XS2080765154	0.23%	0.00320
XS1843433472	0.08%	0.00361
USU75355AD68	0.24%	0.00318
USY7278TAF67	0.23%	0.00313
USY7275HAA69	0.23%	0.00305
USP90187AE86	0.25%	0.00328
XS1807502668	0.23%	0.00319
US75281AAS87	0.05%	0.00071
US75281ABA60	0.24%	0.00316
XS1599128680	0.23%	0.00383
USU75317AA27	0.24%	0.00327
USU86043AC72	0.05%	0.00070
USN28268AA38	0.05%	0.00081
USU81193AN11	0.24%	0.00311
USU83854AB29	0.22%	0.00322
XS2362416294	0.23%	0.00339
XS1684384511	0.23%	0.00318
XS1811213435	0.05%	0.00072
USU82767AB76	0.24%	0.00324
USP8704LAB47	0.05%	0.00074
XS1854920870	0.24%	0.00317
US86614WAD83	0.05%	0.00088
US803865AA25	0.23%	0.00318
US80386WAA36	0.23%	0.00309
US85205TAJ97	0.23%	0.00324
USU84591AE30	0.23%	0.00316
USU84591AD56	0.05%	0.00071
USU85881AB39	0.24%	0.00318
USY7758EEG27	0.22%	0.00322
USY7758EEF44	0.23%	0.00319
USY7758EEC13	0.23%	0.00315
XS1712553418	0.24%	0.00496
USN78840AH33	0.23%	0.00312
USN78840AK61	0.23%	0.00307
US45031UCF66	0.23%	0.00317
USL62788AA99	0.23%	0.00315
USL62788AB72	0.24%	0.00317
USW8758PAK22	0.24%	0.00317
XS2080321198	0.23%	0.00331
US31562QAF46	0.23%	0.00308
USU85656AG86	0.23%	0.00329
US85571BAL99	0.05%	0.00072
USU85656AE39	0.23%	0.00314

US44106MAZ59	0.22%	0.00337
US44106MAR34	0.24%	0.00328
US44106MAT99	0.05%	0.00081
US44106MAS17	0.22%	0.00330
USP01012AS54	0.17%	0.00504
US89346DAF42	0.24%	0.00319
XS2265528120	0.23%	0.00312
USG50027AE42	0.24%	0.00324
XS1121908211	0.23%	0.00305
XS1691349010	0.23%	0.00321
US88167AAD37	0.24%	0.00327
US88165FAG72	0.24%	0.00324
US88167AAL52	0.23%	0.00311
US88167AAN19	0.23%	0.00310
USU8968GAF10	0.22%	0.00319
USU8968GAG92	0.23%	0.00302
USP9308RAZ66	0.05%	0.00075
US88033GCS75	0.24%	0.00325
USU88030BF46	0.23%	0.00315
US88033GCN88	0.24%	0.00309
XS1729876059	0.22%	0.00318
XS1090889947	0.23%	0.00304
USG91237AA87	0.05%	0.00089
USU87286AD91	0.23%	0.00307
USU8759MAA28	0.23%	0.00312
US852061AS99	0.23%	0.00312
US85207UAH86	0.24%	0.00296
US85207UAJ43	0.24%	0.00294
US85207UAF21	0.23%	0.00293
USU88863AE24	0.23%	0.00312
US98310WAL28	0.24%	0.00318
USU8808PAA67	0.20%	0.00361
US88947EAN04	0.23%	0.00314
USU87300AC03	0.05%	0.00076
US962178AN91	0.23%	0.00307
US900123CA66	0.23%	0.00323
US900123CX69	0.05%	0.00078
US900123CW86	0.23%	0.00325
US900123CF53	0.23%	0.00318
US900123BZ27	0.23%	0.00312
US900123CV04	0.23%	0.00322
US900123CR91	0.24%	0.00311
US900123AW05	0.23%	0.00316
USU8961TAA17	0.24%	0.00322
US896522AH27	0.23%	0.00316
USU89588AB03	0.23%	0.00312
XS1750996206	0.24%	0.00320
XS2100270508	0.23%	0.00330

USP93960AF25	0.24%	0.00316
XS1028951264	0.23%	0.00326
XS1955059420	0.22%	0.00308
XS1686704948	0.22%	0.00326
XS1684378208	0.24%	0.00318
XS1496463297	0.23%	0.00320
XS1814962582	0.23%	0.00319
XS1917720911	0.23%	0.00310
XS1303921214	0.18%	0.00334
XS1303921487	0.12%	0.00346
XS1303925041	0.12%	0.00366
XS1902171591	0.12%	0.00361
US910047AK50	0.23%	0.00327
US910047AH22	0.24%	0.00324
USU9029YAD23	0.05%	0.00069
USJ94303AH79	0.23%	0.00306
USP94461AC79	0.24%	0.00599
USP94461AB96	0.24%	0.00538
USU91473AA32	0.24%	0.00313
USU91505AL80	0.24%	0.00323
USU91505AN47	0.05%	0.00067
USU90375AB99	0.05%	0.00069
USU91231AA50	0.05%	0.00074
XS1953916290	0.22%	0.00307
XS2083131859	0.23%	0.00325
XS2112797290	0.23%	0.00338
XS1760780731	0.24%	0.00319
XS0849728190	0.23%	0.00317
XS1970705528	0.22%	0.00304
USC95808AA60	0.05%	0.00071
USY9384RAA87	0.23%	0.00305
XS2055651082	0.23%	0.00315
XS2055749720	0.23%	0.00310
US92343EAH53	0.05%	0.00068
US563568AB08	0.25%	0.00324
USU96217AA99	0.05%	0.00092
USU85254AF42	0.24%	0.00319
USU98347AJ32	0.24%	0.00320
USU98347AK05	0.05%	0.00074
USU98354AB63	0.05%	0.00069
USU9840VAH60	0.05%	0.00069
US984121CJ06	0.23%	0.00321
XS0861979440	0.24%	0.00320
XS1634372954	0.23%	0.00320
XS1788516679	0.23%	0.00310
XS1958649854	0.22%	0.00300
XS1809258210	0.23%	0.00321
XS2030531938	0.23%	0.00320

XS2179326371	0.05%	0.00075
US988498AJ04	0.23%	0.00314
US836205AQ75	0.24%	0.00313
USU98737AC03	0.05%	0.00074
USY9896RAB79	0.24%	0.00316
XS2066225553	0.24%	0.00333
USP5015VAD84	0.24%	0.00318
US29082AAA51	0.24%	0.00319
XS0794901727	0.24%	0.00317
USP0918ZAX44	0.24%	0.00319
XS0809571739	0.24%	0.00325
US46556MAH51	0.24%	0.00319
US25470XAJ46	0.24%	0.00320
US007903AX53	0.24%	0.00316
XS1266660635	0.24%	0.00323
US65412AEK43	0.24%	0.00319
XS1659030305	0.24%	0.00323
USU0242AAC63	0.24%	0.00319
XS2011522914	0.25%	0.00336
XS2027393938	0.15%	0.00346
XS2017903100	0.24%	0.00325
XS2018814397	0.26%	0.00343

Index Guide Disclaimers

This document is intended for information only and does not create any legally binding obligations on the part of Deutsche Bank AG and/or its affiliates ("DB"). This document is intended to provide a summary of the index it purports to describe. No warranty or representation is made as to the correctness, completeness and accuracy of the information.

Without limitation, this document does not constitute an offer, an invitation to offer or a recommendation to enter into any transaction. When making an investment decision, you should rely solely on the final documentation relating to the transaction. Products based on the index or indices described in this document may not be appropriate for all investors and before entering into any transaction you should take steps to ensure that you fully understand the transaction and have made an independent assessment of the appropriateness of the transaction in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such transaction. Refer to your DB Sales person for product related information. For general information regarding the nature and risks of the proposed transaction and types of financial instruments please go to www.globalmarkets.db.com/riskdisclosures. You should also consider seeking advice from your own advisers in making this assessment. If you decide to enter into a transaction with DB, you do so in reliance on your own judgment. Past performance is no indication of future results.

This material was prepared by DBIQ. It is not investment research, and has not been prepared in accordance with legal requirements designed to promote the independence of such. Any opinions expressed herein may differ from the opinions expressed by other DB departments including the Research Department. DB may engage in transactions in a manner inconsistent with any views discussed herein. DB trades or may trade as principal in instruments (or related derivatives) linked to the index or indices described in this document, and may have proprietary positions in the instruments (or related derivatives). DB may make a market in such instruments (or related derivatives), which may in extreme circumstances affect the levels of the index or indices described.

The Index Administrator makes no express or implied representations or warranties as to (a) the advisability of purchasing or assuming any risk in connection with any transaction which references or is otherwise linked to this Index, (b) the levels at which the Index stands at any particular time on any particular date, (c) the results to be obtained by any party from the use of the Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction or (d) any other matter. Calculations may be based on information obtained from various publicly available sources. The Index Administrator has relied on these sources and has not independently verified the information extracted from these sources and accepts no responsibility or liability in respect thereof. If there is a calculation error the Index Administrator may restate the Index Level.

Without prejudice to the Index Owner or Index Administrator's obligations under any regulatory system, and without limiting any of the foregoing, in no event shall DB have any liability (whether in negligence or otherwise) to any person in connection with such person's use of the Index, unless such use is pursuant to a transaction between that party and DB relating to the Index and such liability results from wilful default and/or gross negligence on the part of DB.

The distribution of this document and availability of related products and services in certain jurisdictions may be restricted by law. You may not distribute this document, in whole or in part, without our express written permission. DB specifically disclaims all liability for any direct, indirect, consequential or other losses or damages including loss of profits incurred by you or any third party that may arise from any reliance on this document or for the reliability, accuracy, completeness or timeliness thereof.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. In the U.S. this report is approved and/or distributed by Deutsche

Bank Securities Inc., a member of the NYSE, the NASD, NFA and SIPC. In Germany, this report is approved and/or communicated by Deutsche Bank AG, a joint stock corporation with limited liability incorporated in the Federal Republic of Germany with its principal office in Frankfurt am Main. Deutsche Bank AG is authorised under German Banking Law (competent authority: European Central Bank) and is subject to supervision by the European Central Bank and by BaFin, Germany's Federal Financial Supervisory Authority. In the United Kingdom, this report is approved and/or communicated by Deutsche Bank AG acting through its London Branch at Winchester House, 1 Great Winchester Street, London EC2N 2DB. Deutsche Bank AG in the United Kingdom is authorised by the Prudential Regulation Authority and is subject to limited regulation by the Prudential Regulation Authority and Financial Conduct Authority. Details about the extent of our authorisation and regulation by the Prudential Regulation Authority, and regulation by the Financial Conduct Authority are available from us on request. This report is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. This report is distributed in Singapore by Deutsche Bank AG, Singapore Branch, and recipients in Singapore of this report are to contact Deutsche Bank AG, Singapore Branch in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), Deutsche Bank AG, Singapore Branch accepts legal responsibility to such person for the contents of this report. In Japan this report is approved and/or distributed by Deutsche Securities Inc. The information contained in this report does not constitute the provision of investment advice. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and considers the PDS before making any decision about whether to acquire the product. Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/10). Additional information relative to securities, other financial products or issuers discussed in this report is available upon request. This report may not be reproduced, distributed or published by any person for any purpose without Deutsche Bank's prior written consent. Please cite source when quoting.

Copyright © 2019 Deutsche Bank AG