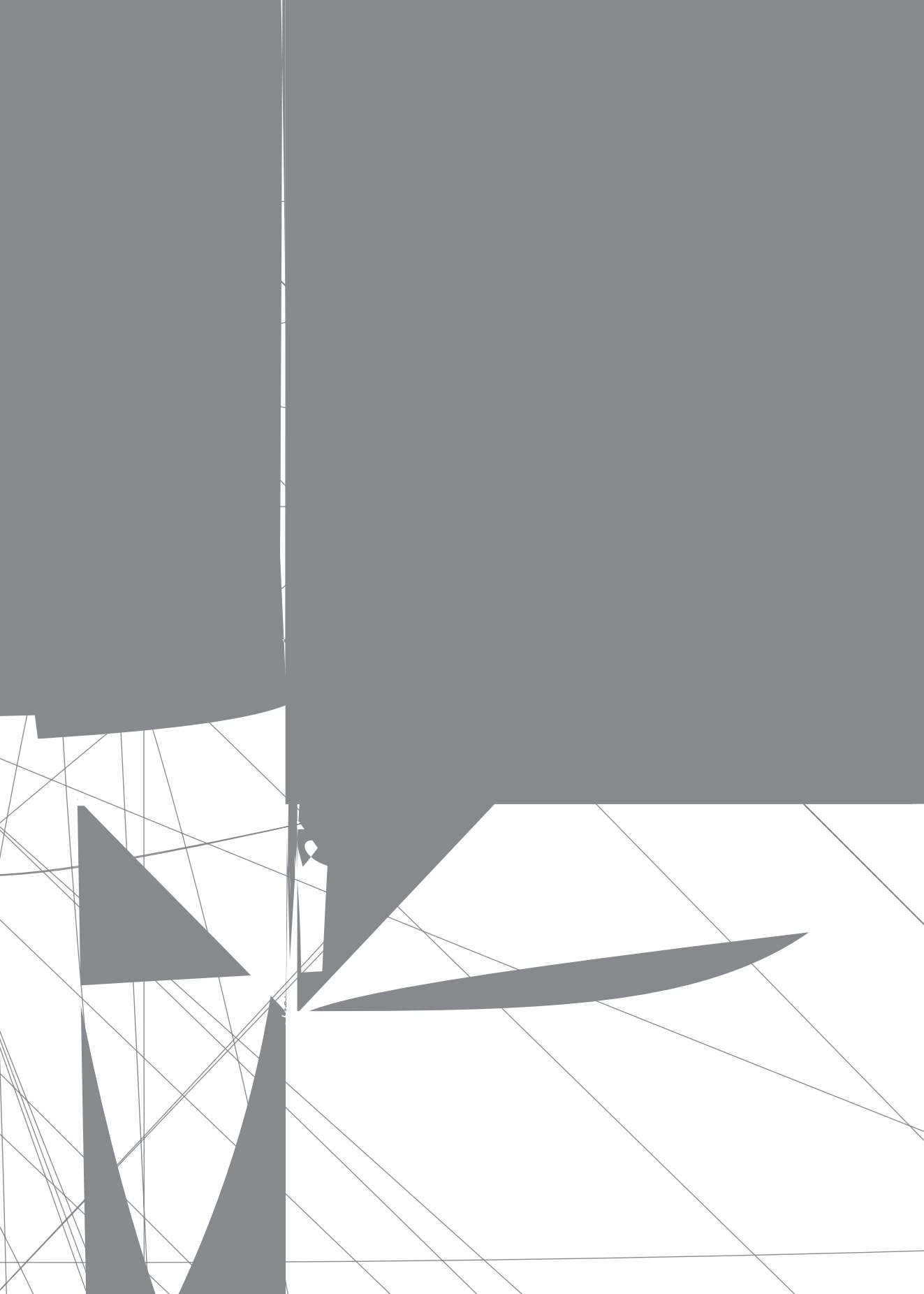

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		>Ø%E'•*ºPGS P#t‡J«R”«º*«.¶%B¤'©Ÿ° oh
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z¢• ïsB0		Q 3PGƒ$ê//ë=•ê0t‡J«R”«º*«.¶ *¢©˜^]dl2\ ´[][FNl2•ì^ +Ü¡P5H4 ° oh

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~ñ•“B0tèt‡J«n¸.•>¥.®ê3[% Yí‡…DQn¸œâ Yê3£,Q1> & %C«”mMn¸ ^•+˜3ˆCN vDÝ&¿• n¸>~£ &³ïsBBP±\»J©ŸìDÝ&At‡J«® PGn¸B5]›êðÕ7Y'ú PÓWÛDQóÖCN,¹•/l v= %/&9Q17Y'úPÓ> …&ž„n¸uÓq•ê3RsQ1B0tè'•%C.Ô Rs´[•0Cs ›ïsn¸Eªd¬& g. v

óÕ7Y'úPÓWÛDQóÖ> B0tèRš,•n¸ llU&Hwû-¿n¸óÕu¿«JD.¡PóÖL€.Ô%×^• >,n¸óÕ&ƒ(}+±¡PóÖv= &hB0†jJ«RØ%lc:µCê3> =D³Â=Nn¸7,F=8:G°ŸÛïs%l B0. ¤çn¸aj_ ,˜ƒ$ê3™ÑóÕ&H=D³Â=N+ÒB0. óÖn¸• œt%/*ÙQ1*j`..ˆOÚn¸ «ß¡,ê3•/Q1t‡<Ô¡’ %,n¸z¢+.oë«« v

JÔ+ƒ«D°(ê3Lr[ÛPG•Ì óTSœSP¡=¡,ê3Ìï>g•à.ˆ v7Y'úPÓWÛDQ> tzKf ˜% '•%C ›ïsn¸*p ›‡…DQê3&h+±PG³§,˜¤è5Ûê3&h& &U©þ>g+äCsê34 œ ƒ$& %C.Ô%* u.Ô•; u.ÔQ•n¸E0tè%Zê3%l*¢iÊPGJ«RØ& %Cïs\Ü*•qÛ=<FNn¸ ,‡¤ê v

5*"/4 .PEFM

*O UIF DPOUFNQPSBSZ HMPCBM DPOUFYU UFDIOPMPHJD
BOE JOEVTUSJBM SFTUSVDUVSJOH BSF DPOWFSHJOH XJUI
&NFSHJOH UFDIOPMPHJFT JO GJFMET TVDI BT GJOF DIFNJD
CJPMPHZ BOE CJPQIBSNBDFVUJDBMT BSF DPOTUBOUM
QSPWJEJOH TUSPOH JNQFUVT GPS JOEVTUSJBM VQHSBEJO
UIF USBOTJUJPO GSPN MBCPSBUPSZ BDIJFWFNFOUT UP JOI
PGUFO FODPVOUFST DIBMMFOHFT PXJOH UP UFDIOJDBM D
QSFTTVSFT TBGFUZ SJTLT BOE NBSLFU VODFSUBJOUJ
FOHJOFFSJOH TFSWJDF NPEFMT DPOGJOFE UP QBSUJB
GBMM TIPSU PG NVMUJ EJNFOTJPOBM BOE FOE UP FO
JOEVTUSJBMJ[BUJPO 5IF FSB EFNBOET BO JOOPWBUJV
QBSBEJHN UIBU FODPNQBTTFT UIF FOUJSF ó+'SPN -BC UP
ESJWJOH UIF JOEVTUSJBMJ[BUJPO PG OFX UFDIOPMPHJFT N
BOE GMFYJCMZ "T B QJPOFFS JO FOHJOFFSJOH EFTJH
DSFBUJOH WBMVF CZ GPDVTJOH PO QSPDFTT UFDIOPMPHZ
JT SFEFGJOJOH UIF CPVOEBSJFT BOE GVUVSF QSPTQFDUT
UFDIOPMPHZ TFSWJDFT XJUI JUT EJTUJODUJWF ó+5*"/4 .PEFMó

5IF ó+5*"/4 .PEFMó+ JT BO JOOPWBUJWF FOHJOFFSJOH QI
GPS FNQPXFSJOH UIF JOEVTUSJBMJ[BUJPO PG OFX UF

#BTFE PO B QSPDFTT PSJFOUFE FDPTZTUFN BT JUT
JU PQFSBUFT UISPVHI UIF TZOFSHJTUJD DPPQFSE
NPEFM PG ó+5SJ QMBUGPSN *OUFHSBUJPO BOE 5SJQM
JOUFHSBUFT UIF UFDIOPMPHZ QMBUGPSN CVTJOI
QSPKFDU DPNNBOE QMBUGPSN 5IJT JOUFHSBUFE
TUPQ TFSWJDFT FODPNQBTTJOH BMM TQFDJBMUJFT B
GVMéàMMJOH UIF WBMVF DPNNJUNFOU PG ó+POF UJNF
GPS DMJFOUT 3FMZJOH PO EJTUJODUJWF TZT
PQUJNJ[BUJPO JOIFSFOU TBGFUZ BOE UFDIOPMPHZ D
DPSF (À€-.PEFM EFMJWFST WBMVF FOHJOFFSJOH TF
POF UJNF TVDDFTTGVM USJBM SVO ESJWJOH UIF TV
JOEVTUSJFT UPXBSET IJHI FOE HSFFO EJHJUBM BOE

5IF JOEVTUSJBMJ[BUJPO PG OFX UFDIOPMPHJFT DPOGS
DIBMMFOHFT JODMVEJOH JODPNQMFUF QSPDFTT QBDLBHFT
TDBMJOH VQ TIPSUBHFT PG JOUFSEJTDJQMJOBSZ UBMFOUT
UP DPTU FéßFDUJWFOFTT SFMJBCJMJUZ DPNQMJBODF BOE NB

*ODFOUJWF 1SPKFDU $PNNBOEFS 2VBMJGJDBUJPO .B

5IFTF NFBTVSFT IBWF GBDJMJUBUFE UIF JOUFHSBU

BDSPTT BMM EJTDJQMJOFT GSPN EFTJHO BOE QSPD

BOE DPOTUSVDUJPO BDIJFWJOH DPNQSFIFOTJWF QSF

EFWFMPQNFOU 5IJT FéßPSU IBT DVMUJWBUFE B DPSF UFBN

UFDIOPMPHZ BOE NBOBHFNFOU XJUI FYQFSUJTF JO QS

JOOPWBUJPO BOE JOEVTUSJBM JNQMFNFOUBUJPO UIF HSPVQ CPBT

1I % IPMEFST BOE TDJFOUJTUT JOEVTUSZ DPOTVM

FYQFSUT BOE UFDIOJDBM CBDLCPOF QFSTPOFM TQFD

UFDIOPMPHZ FOHJOFFSJOH EFTJHO BOE QSPEVDUJPO NBO

O BEEJUJPO UIF 5"/4 4DJFODF 5FDIOPMPHZ

FTUBCMJTIFE TUSPOH TUSBUFHJD QBSUOFSTIJQT XJUI

TVDI BT 5TJOHIVB 6OJWFSTJUZ &BTU $IJOB 6OJWFS

5FDIOPMPHZ #FJKJOH 6OJWFSTJUZ PG $IFNJDBM 5FDI

1SPDFTT &OHJOFFSJOH PG $IJOFTF "DBEFNZ PG 4DJFODFT

PG $IFNJDBM 1IZTJDT #Z UIF FOE PG UIF DPNNJUUFF F

JOEVTUSZ BDBEFNJB SFTFBSDI FYQFSUT JO EPNBJOT TVD

TZOUIFUJD CJPMPHZ QIBSNBDFVUJDBMT BOE JOUFMMJHFO

2 'VMM -JGFDZDMF 1SPDFTTJOH 5FDIOPMPHZ

(VJEFE CZ UIF QSJODJQMF PG ó+NVMUJ DPSF E

JOUFHSBUF UPQ MFWFM DSPTT EJTDJQMJOBSZ FYQF

5*"/4 .PEFM

0QFSBUJPO .PEFM PG ó+5SJ 1MBUGPSN *OUFHSBUJPO BOE 5SJQMF &OHJOF %

5P TZTUFNBUJDBMMZ UBDLMF UIF GSBHNFOUBUJPO CFUXFFO NBSLF BOE FYFDVUJPO JO DPOTUSVDUJPO QSPKFDUT XIJDI SFTVMUT JC BOE B QPPS DMJFOU FYQFSJFODF 5*"/4 QJPOFFSFE BOE QS PQFSBUJPOBM NPEFM UIBU JOUFHSBUFT UISFF QMBUGPSNT U QMBUGPSN UIF CVTJOFTT EJWJTJPO QMBUGPSN BOE UIF QSPK QMBUGPSN UIBU JT ó+5SJ 1MBUGPSN *OUFHSBUJPO BOE 5SJQMF NPEFM5IJT NPEFM EJTSVQUT USBEJUJPOBM MJOFBS XPSLéáPXT DPO JOUFSBDUJPO BNPOH UIF UISFF QMBUGPSNT GSPN TFRVFOUJBM D QBSBMMFM JOUFSBDUJPO *U DPOTUSVDUT BO PSHBOJD FDPTZTUF DMJFOU WBMVF DBQBCMF PG TFMG PSHBOJ[JOH BOE EZOBNJ BDIJFWJOH SBQJE SFTQPOTF UP NBSLFU EFNBOET BOE IJHI RVBMJU

10SHBOJD &DPTZTUFN 5SJ 1MBUGPSN *OUFHSBUJPO BOE 5SJQMF 5FDIOPMPHZ 1MBUGPSNóL5IF &OHJOF PG *OOPWBUJPO BOE 5FDIO

8F TQFDJBMJ[F JO QSPDFTT UFDIOPMPHZ BOE EFTJHO MFWFSBHJ UFDIOJRVFT BOE FYDFQUJPOBM DSFBUJWF EFTJHO UP TFU IJHI RV

GPS QSPKFDU EFMJWFSZ 8F QSPWJEF DMJFOUT XJUI
JOUFHSBUF BEWBODFE JOOPWBUJPO BOE TUSPOH JNQMFN
5*"/4 DPOTUSVDUT B DPSF DPNQFUFUFODZ GPVO
UIF QSPKFDU MJGFDZDMF CZ JOUFHSBUJOH UFDIOJD
1SPDFTT 5FDIOPMPHZ $FOUFS UIF (FOFSBM &OHJOF
%FTJHOFS 0éâDF UIF $IJFG 4BGFUZ 0éâDFS 0éâDF UIF $IJF
UIF %FTJHO $FOUFS UIF 2JOHEBP %FTJHO $FOUFS UI
&OWJSPONFOUBM 5FDIOPMPHZ $FOUFS UIF #*. $FOUFS
$FOUFS UIF 7BMJEBUJPO $FOUFS UIF #JH %BUB $FOUF

JUT GPDVT PO IJHI UFDI JOEVTUSJFT TVDI BT GJOF DIFNJD
DPOUBJOJOH éàOF DIFNJDBMT FMFDUSPOJD DIFNJDBMT TZOUIFUJ
CJP QIBSNBDFVUJDBMT 0VS CVTJOFTT DPWFST NPSF UIBO DP
SFHJPOT HMPCBMMZ XJUI NPSF UIBO CFODINBSL QSPKFDUT T
DPNQMFUFE

1SPKFDU $PNNBOE 1MBUGPSNóL5IF $PSOFSTUPOF PG 1SI
%FMJWFSZ BOE 1FSGPSNBODF

&TUBCMJTIFE BT QIZTJDBM FOUJUJFT JO SFTQPOTF UP TQ
SFRVJSFNFOUT UIFTF DPNNBOET QSFDJTFMZ BODIPS CPU
EFNBOET BOE EFTJHO TUBOEBSET FOTVSJOH FéâDJFOU IJHI RVBM
XJUI UIF VOXBWFSJOH HPBM PG POF UJNF TVDDFTTGVM USJBM SVC

5IF $MJFOU DFOUSJD 1SPKFDU $PNNBOE 4ZTUFN

5IF 5*"/4 QSPKFDU DPNNBOE TZTUFN BMMPDB

BDDPSEJOH UP DMJFOU OFFET FOTVSJOH UIBU ó+UIF DPN

QFSTPOOFM JO MJOF XJUI DMJFOU SFRVJSFNFOUTó+ *UT I

1SPGFTTJPOBM $PNNBOE 5FBEEP°

BDT M`@€`MT @@ M`ðFT UT w FBJUFS@`OE€q7 `UMAMFMü „UGQ„q"v‰“1

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1SPDVSFNFOU
*OTQFDUJPO
4VQFSWJTJPO
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.BOBHFNFOU
5SBOTQPSUBUJPO
"DDFQUBODF
*OWFOUPSZ
4VQQMJFS
.BOBHFNFOU

5IF &1$ .BOBHFNFOU 1SPDFTT $FOUFSFE PO 'PVS $P

.FFUJOHT

(VJEFE CZ UIF PQFSBUJPO NPEFM PG ó+5SJ 1MB

BOE 5SJQMF &OHJOF %SJWFOó+ 5*"/4 IBT B UFSBUJW

NBOBHFNFOU QSPDFTT BDFOUFSFE PO GPVS BDPPSEJ

QSPDFTT Bе€@ZTUFNBUJDBMMZ DPOOFDUT Bе€ MM Bе€ÀFZ

GVM QSPDFTT DPOUSPM B„` OE FGGFDUJWF JNQMFNF

EFDJTJPO NBLJOH BOE SFWJFXT VMUJNBUFMZ BU

EFMJWFSZ

5*"/4 .PEFM

'PVS $PPSEJOBUJPO .FFUJOHT

'PVS .FFUJOHT	,FZ $POUFOUT	1BSUJDJQBOUT

%JTUJODUJWF 4ZTUFNT

*O UIF JOEVTUSJBMJ[BUJPO PG OFX UFDIOPMPHJFT
FOUFS UIF NBSLFU BU B DPNQFUJUJWF QSJDF TFSW
GPS FWBMVBUJOH JUT FDPOPNJD WJBCJMJUZ *OWFT
GSPN B DPNQSFIFOTJWF VOEFSTUBOEJOH PG QSPE
TZTUFNBUJD NBOBHFNFOU UISPVHIPVU UIF FOUJS
5IFSFGPSF XF IBWF FOHJOFFSFE B QSPGPVOE USBOTGP
JOWFTUNFOU DPNQFUJUJWFOFTT BJNJOH UP BDIJFWF U
PG+DPOUSPMMJOH JOWFTUNFOU DPTU CFUUFS UIBO D
QSPKFDU JOWFTUNFOUT NPSF FéßFDUJWFMZ UIBO USBEJU

14PVSDF *OOPWBUJPO 0QUJNJ[JOH UIF -JGFDZDM 1SPDFTT *OUFMMJHFODF

*OWFTUNFOU DPTU DPOUSPM NVTU DPNNFODF CFGPSF EF
QSPDFTT JOUFMMJHFODF 5*"/4 IBT BTTFNCMFE BO FYQFS
FYQFSUJTF JO QSPEVDUJPO PQFSBUJPOT "EIFSJOH UP

PG ó+EFTJHO HVJEFE CZ QSPEVDUJPOó+ XF DPOEVDU B SFWFSTF
EFQUI EFTJHO PQUJNJ[BUJPO TUBSUJOH GSPN UIF CFOFéàU PSJHJ
'BDUPSZ

.FBOXIJMF GVMM MJGFDZDMF JOWFTUNFOU DPOUSPM JT
%VSJOH UIF GFBTJCJMJUZ TUVEZ QIBTF NVMUJ TDIFNF UFDIOJDBM
DPNQBSJTPOT BSF DBSSJFE PVU UP MPDL JO UIF PQUJNBM JO
*O UIF EFTJHO QIBTF XF FNCFE DPTU EJTDJQMJOF BU UIF TPV
JOUFOTJWF QMBOU MBZPVU QSPDFTT PQUJNJ[BUJPO JOUFMMJH
QSFDJTJPO FRVJQNFOU TFMFDUJPO

-BZPVU 0QUJN5JI[SBPVJHPIO TZTUFNBUJD QMBOU XJEF PS
XPSLTIPQ MFWFM MBZPVU PQUJNJ[BUJPO XF SFEVDF NBUF
EJTUBODFT CZ BO BWFSBHF PG UP TJHOJéàDBOUMZ SFEV
MPHJTUJDT JOWFTUNFOU DPTU

&éï B d€`P &QU0 H T ,2 JG•ÞI`J@UTç'1` T0€` X” €J% Jü x0J ðJ J ` Q$`T2 U

TFMFDUJPOT GSPN PWFS B UIPVTBOE QSPKFDUT XF QSFD
BOE FRVJQNFOU UP QSPKFDU DBQBDJUZ BOE UFDIOJDBM
PQUJNBM FDPOPNJD BOE QFSGPSNBODF éàU GPS NBYJNVN

2

#Z JNQMFNFOUJOH UIF ó+EFNBOE JOUFHSBUFE QSPDVSFNFOUó-
TZTUFNBUJDBMMZ QMBO QSPKFDU TPVSDJOH %FMJWFSZ TDI
FRVJQNFOU BOE NBUFSJBMT BSF EZOBNJDBMMZ MJOLFE U
QSPHSFTT NJOJNJ[JOH PO TJUF NBUFSJBM TIPSUBHFT BOE XBS
$POTUSVDUJPO 'FFECBDL &OBCMJOH -FBO $MPTFE MPPQ .BO
5ISPVHI UIF FYUFOTJWF BQQMJDBUJPO PG #VJMEJOH *OGPSNBU
#*. BOE NPEVMBS QSFGBCSJDBUJPO SFXPSL JT SFEVDFE BU UIF
ó+SFBM UJNF EFTJHO DPOTUSVDUJPO GFFECBDL NFDIBOJTNó+ P
CBSSJFST CFUXFFO EFTJHO BOE DPOTUSVDUJPO FTUBCMJTIJOH

TUBHF EFTJHO SFEVDFT FRVJQNFOU JOWFTUNFOUT CZ NP

5IF BQQMJDBUJPO PG #*. BOE NPEVMBS UFDIOP

QSPKFDU TDIFEVMFT CZ Ê BOE SFEVDFT MBCPS DPTU

3 %JHJUBM &OHJOF %BUB ESJWFO 1SFDJTJPO *O

#FZPOE SFMZJOH PO FYQFSJFODF TDJFOUJGJD BQQ

JNQPSUBODF 5*"/4 IBT EFWFMPQFE B DPOUJOVPVT

over 50%, weighing accuracy remains consistently high, and batching labor is reduced by 80%.

*OUFHSBUFE PG 4FQBSBUJPO BOE 8BTIJOH .PEVMFT JO -J

1SPDFTT JOUFHSBUJOH TPMJE MJRVJE TFQBSBUJPO XBTIJOH BO

FYUSBDUJPO BOE QIBTF TFQBSBUJPO BOE MPX UFNQFSBUVSF W

BOOVBM FDPOPNJD CFOFGJUT DBO GVMMZ DPWFS BM
QSPKFDUT FWFO ZJFMEJOH B QSPéàU

'PS IJHI TBMU BOE IJHI DPODFOUSBUJPO DIFNJDBM BC
XBTUFXBUFS UIF BQQMJDBUJPO PG BEWBODFE F
JOUFHSBUJPO DPODFOUSBUJPO BOE DSZTUBMMJ[BUJPO
UIF NPUIFS MJRVPS BNPVOU UP MFTT UIBO BDIJFWF B
PWFS BOE MPXFS UIF PWFSBMM TZTUFN PQFSBUJO

*OUFHSBUFE 0QUJNJ[BUJPO BOE -JGFDZDMF 1S
&MJNJOBUF)JEEFO $PTUT

*O B IJHI FOE "DUJWF 1IBSNBDFVUJDBM *OHSFEJ
QSPEVDUJPO DBQBDJUZ JT JODSFBTFE CZ UISPV
PQUJNJ[BUJPO XIJMF UIF PWFSBMM JOWFTUNFOU JT SFE
UP UIF CVEHFU

*O B LFZ GJOF DIFNJDBMT QSPKFDU UIF GVMM QS
SFEVDFE DMJFOUó,T PQFSBUJOH DPTUT CZ BOE TIPS
QBZCBDL QFSJPE CZ

4BGFUZ JT OPU NFSFMZ BCPVU DPTU CVU JU TFSWFT BT UI
JOWFTUNFOU BOE DPNQFUJUJWFOFTT JO OFX UFDIOPMPHZ JOEV
5*"/4 IBT SFEFéàOFE USBEJUJPOBM QBTTJWF TBGFUZ CZ SFHBS
DPSF FOHJOFFSJOH BUUSJCVUF UIBU DBO CF EFTJHOFE BOE J
8F IBWF FTUBCMJTIFE B DPNQSFIFOTJWF JOIFSFOU TBGFUZ NB
TZTUFN DFOUFSFE PO ó+SJTL QSF DPOUSPM TPVSDF HPW
GVMM MJGFDZDMF (VBJEEE FCZF B UE+VBM IFMJY EFDJTJPO
NBLJOH NFDIBOJTN UIBU JOUFHSBUFT ó+EBUB FYQFSUJTFó
CJEJSFDUJPOBM WFSJéàPDBUJPO BOE FOIBODFNFOU 1SFWFOUJPO
EFFQMZ FNCFEEFE BU UIF TPVSDFT PG QSPDFTT BOE EFTJHO B
JNQMFNFOUFE BDSPTT UIF GVMM MJGFDZDMF 3 % EFTJHO
DPOTUSVDUJPO USJBM QSPEVDUJPO BOE PQFSBUJPOT 5ISPVH
DPNQMJBODF ESJWFO EFMJWFSZ XF FOTVSF FWFSZ MJOL
USBDFBCMF BOE DPOUSPMMBCMF

*U JT éàSNMZ CFMJFWFE UIBU UIF IJHIFTU MFWFM PG TBGFUZ MJ
UIF QPTTJCJMJUZ PG SJTL PDDVSSFODF 5IFSFGPSF UIJT TZTUFN C
DPNQMJBODF CVU BMTP FTUBCMJTIFT SFMJBCMF BOE TVTUBJO
FOHJOFFSJOH WBMVF GPS DMJFOUT TZTUFNBUJDBMMZ DPOWFSUJ
UFSN QSPKFDU BEWBOUBHFT

14BGFUZ JT B %FTJHO BCMF BOE %FMJWFSBCMF
5*"/4 WJFXT TBGFUZ BT BO FOHJOFFSJOH BUUS
JOUFHSBUFE GSPN UIF TPVSDF BEIFSJOH UP UIF GPMMPX
1SPBDUJWF 1SJODJQMF BHFNFOU CFHJOT BU UIF
EFTJHO TUBHF
*OUFHSBUJPO 1SJODJQMFS WFT BT UIF DPNNPO H
QSJODJQMF GPS BMM EJTDJQMJOFT FODPNQBTTJOH QSPD
DPOTUSVDUJPOISG@•F5ÁMà\FUJP

*OIFSFOU 4BGFUZ %FTJHEVJMEFMJOFTUIBO POF UI

BOE DPNQMJBODF DFSUJéàDBUJPOT

$POTUSVDUJPO1TUF EZOBNJD TVQFSWJTJPO XJUI TQFDJBMJ[

DPOUSPM QMBOT EFWFMPQFE GPS IJHI SJTL BDUJWJUJFT

*OJUJBUJPO 1IBTF $P DSFBUJOH UIF 3VMFT

$PMMBCPSBUF XJUI DMJFOU UP FTUBCMJTI B D
KPJOUMZ JEFOUJGZ DSJUJDBM DPOGJEFOUJBMJUZ QPJ
DVTUPNJ[FE *KFDU $POéàEFOUJBMJUZ 8IJUF 1BQFS

&YFDVUJPO 1IBTF %ZOBNJD $POUSPM

1FSTPOOFM UIF óNJOJNVN OFDFTTBSZó+ QSJODJQMF $PSF JOGPSNBU
FRVJQNFOU BOE DPOUSPM TZTUFNT JT EFDPNQPTFE
FOHJOFFST UP BDDFTT POMZ UIF FTTFOUJBM JOGPSN
NPEVMFT

1SPDFTT *NQSPWFNFOUT SFWJFXT BSF DPOEVDUFE JO DP
SPPNT "MM ESBGUT BSF TISFEEFE JNNFEJBUFMZ PO TJUF %
QMBDF PWFS QIZTJDBMMZ JTPMBUFE OFUXPSLT BOE BOZ VO
FYQPSU JT QSPIJCJUFE

#FIBWJPSBM "OBMZTFT BSFBT PQFSBUF VO
BDDFTT ó+XIJUFMJTUó+ &OUSZ BOE FYJU SFDPSET BT XFM
BSF BSDIJWFE BVUPNBUJDBMMZ GPSNJOH BO JNNVUBCMF

*O B OFX CBUUFSZ NBUFSJBM JOEVTUSJBMJ[BUJPO
XBT EJWJEFE JOUP NVMUJQMF NPEVMFT &OHJOFFSJOH
EJTDJQMJOFT DPVME POMZ BDDFTT EBUB EJSFDUMZ S
EFTJHO DPMMBCPSBUJPO JT DPOEVDUFE UISPVHI QIZTJDE
FODSZQUFE TBOECPY FOWJSPONFOUT 5IJT NFBTVSF FO
VOBVUIPSJ[FE JOGPSNBUJPO BHHSFHBUJPO

$MPTJOH 1IBTF ;FSP "VEJU

6QPO QSPKFDU DPNQMFUJPO B SJHPSPVT ó+EBUB TBOJUJ[B
JT JNQMFNFOUFE "MM DMBTTJGJFE FMFDUSPOJD EBUB VOEFS
WFSJGJDBUJPO CFGPSF JSSFWFSTJCMF QIZTJDBM FSBTVSF
BSF QVMQFE BOE EFTUSPZFE VOEFS EVBM TVQFSWJTJPO "
$POGJEFOUJBMJUZ J'TVETJNUCSBEQEBSE UP UIF DMJFOU BT UIF GJ
EFMJWFSBCMF BDIJFWJOH B TUSFBNMJOFE DMPTFE MPPQ TFDVSJU

3 *OOPWBUJPO 1SBDUJDFT #FZPOE UIF 4UBOEBSE

5IF 5*"/4 UFDIOPMPHZ DPOéàEFOUJBMJUZ TZTUFN JT NPSF SPCV
TFWFSBM GPSXBSE MPPLJOH QSBDUJDFT

'PS FYDFQUJPOBMMZ TFOTJUJWF QSPKFDUT BU DMJFOU S
QSPKFDU FOWJSPONFOUT XJUI TJNVMBUFE UFDIOJDBM QB
CFFO FTUBCMJTIFE UP NPOJUPS BOE BMFSU BHBJOTU BOZ TVT
BDUJWJUJFT 5IJT BQQSPBDI IBT TVDDFTTGVMMZ BTTJTUFE DMJ
BOE NJUJHBUJOH QPUFOUJBM CVTJOFTT SJTLT

#MPDLDIBJO CBTFE FWJEFODF BODIPSJOH "MM BDDFTT BOE
MPHT PG DPSF EPDVNFOUT BSF TZODISPOJ[FE JO SFBM UJNF UP U
FWJEFODF TUPSBHF QMBUGPSN HFOFSBUJOH KVEJDJBMMZ SFDP
FWJEFODF UP PéßFS JSSFGVUBCMF QSPPG GPS QPUFOUJBM EJTQVU

$POGJEFOUJBMJUZ JT OPU TPMFMZ BCPVU TJHOJOH BH
B DVMUVSBM JNQFSBUJWF 5ISPVHI SFHVMBS TDFOBSJP C

DBTF TUVEJFT FNQMPZFF DPOGJEFOUJBMJUZ DSFEJU
NFDIBOJTNT DPOGJEFOUJBMJUZ BXBSFOFTT JT EFFQM
DVMUVSF

#Z UIF FOE PG PWFS QSPKFDUT JOWPMW
BOE DVUUJOH FEHF UFDIOPMPHJFT IBE CFFO TVDD
DPOéàEFOUJBMJUZ SPPNT NBJOUBJOJOH BO JNQFDDBCMF
BOE BDIJFWJOH DMJFOU TBUJTGBDUJPO GPS DPOTFDV

*OOPWBUJWF 1SBDUJDFT

$PNQSFIFOTJWF %JTDJQMJOFT BOE -JGFDZD

5IF DPOTUSVDUJPO QSPKFDUT JO éàFMET PG éàOF DIFNJDBMT CJPQI
BOE FMFDUSPOJD DIFNJDBMT BSF GBDJOH NVMUJQMF DIBMM
IJHI UFDIOJDBM JOUFHSBUJPO UJHIU TDIFEVMFT BOE DPNQMFY
DPPSEJOBUJPO 5SBEJUJPOBM EFTJHO JOTUJUVUFT PS DPOTUSVDU
MPOHFS GVMMZ NFFU DMJFOUTó, DPNQSFIFOTJWF SFRVJSFNFOUT C
GPSFTJHIU IPMJTUJD FOHJOFFSJOH TPMVUJPOT BOE HVBSBOUFFE
BEESFTTFT UIFTF SFRVJSFNFOUT UISPVHI JUT BQQSPBDI PG ó+DP
EJTDJQMJOFT BOE MJGFDZDMF TFSWJDFó+ GBDJMJUBUJOH UIF
JOUFHSBUJPO PG BMM OFDFTTBSZ UFDIOJDBM BOE PQFSBUJPOBM
FTUBCMJTIFT B TFBNMFTT SFMJBCMF BOE FGGJDJFOU EFMJW
UFDIOPMPHZ UP JOEVTUSJBM BQQMJDBUJPO GPS DMJFOUT

1 $PNQSFIFOTJWF %JTDJQMJOFT)PSJ[POUBM *OUFHSBUJ &MJNJOBUF 5FDIOJDBM 4JMPT

5*"/4 IBT EFWFMPQFE B DPNQSFIFOTJWF QSPGFTTJPOBM GSBN
FODPNQBTTFT UIF FOUJSF JOEVTUSJBMJ[BUJPO DIBJO PG FNFSHJO

5IJT TZTUFN OPU POMZ SFTPMWFT UIF JTTVF PG ó+XI
BMTP UISPVHI JO EFQUI IPSJ[POUBM JOUFHSBUJPO DPN
QSPGFTTJPOBM CBSSJFST HVBSBOUFFJOH UIBU UFDIOJD
QSFDJTFMZ BOE QSPNQUMZ JNQMFNFOUFE BDSPTT BMM E

8F PGGFS GVMM DPWFSBHF PG BMM EJTDJQMJOFT F
3 % FOHJOFFSJOH DPOTVMUBODZ BOE EFTJHO QSPDFT
FDPOPNJD FTUJNBUJPO DMFBOSPPN TZTUFNT BVUPNBUJ
QSPUFDUJPO DPNNJTTJPOJOH WBMJEBUJPO FRVJQN
BOE FWFO #*. BOE EJHJUBM EFTJHO JT TUBGGF
UPQ MFWFM FYQFSUT BOE FRVJQQFE XJUI SPCVTU DBC
JOUFHSBUFE JOUFSOBM DPMMBCPSBUJPO NFDIBOJTN XF
EJTDJQMJOBSZ TZOFSHZ DPOWFSUJOH GSBHNFOUFE
JOUFHSBUFE QSPKFDU TVQQPSU TZTUFN

"MM QSPGFTTJPOBM UFBNT BSF PSHBOJDBMMZ

PGGFSJOH ó+FOE UP FOEó+ TFSWJDFT GSPN UIF DPODFQUVB
PQFSBUJPOBM QIBTF SBUIFS UIBO NFSFMZ QBSUJDJQBUJOH JO QE
5IJT HVBSBOUFFT UIBU DMJFOUT VMUJNBUFMZ PCUBJO B GVMMZ JO
DBQBCMF PG TVTUBJOFE WBMVF DSFBUJPO SBUIFS UIBO KVTU B T
BOE GSBHNFOUFE QSPKFDUT

5IF QSPKFDU DPNNFODFT XJUI GSPOU FOE QSPDFT
EFWFMPQNFOU QSPDFTT PQUJNJ[BUJPO QJMPU TDBMF UFTU

3$PSF 7BMVF 5IF 4ZOFSHJTUJD "EWBOUBHF PG 5IF DPNCJOBUJPO PG ó+DPNQSFIFOTJWF EJTDJQMJOFTó+ QSPWJEFT B EFDJTJWF BEWBOUBHF

5SBEJUJPOBM 4VCDPOUSBDUJOH	5*"/4 .PEFM
.VMUJQMF *OUFSGBDFT %JéâDVMU $PPSEJOBUJPO $MJFOU NBOBHFT NBOZ TVQQMJFS JOUFSGBDFT MFBEJOH UP IJHI DPNNVOJDBUJPO DPTUT BOE VODMFBS SFTQPOTJCJMJUJFT	" 4JOHMF 3FTQPOTJCMF &OUJUZ 5*"/4 BDUT BT UIF TPMF JOUFSGBDF BTTVNFT GVMM SFTQPOTJCJMJUZ FOBCMJOH TJNQMF BOE FéâDJFOU DMJF NBOBHFNFOU
5FDIOPMPHZ &BTJMZ %JTDPOGFDUFE 3 % EFTJHO DPOTUSVDUJPO PQFSBUJPO IBWF JODPOTJTUFOU PCKFDUJWFT	5FDIOPMPHZ 'VMMZ *OUFH$BUFE 5 BOE EJDBM UFBN QBSUJDJQBUFT UP PVHIPVU FOTVSJOH QSFDJTF EJSFDU BMJHONFOU G SPN MBC UP GBC
-PDBM 0QUJNJ[BUJPO $POUSPM 1BSUJFT QVSTVF NJOJNVN DPTU UIF PQUJNBM PWFSBMM CVEHFU BOE TDIFEVMF PWFSSVOT	0WFSBMM -PTT PG (MPCBM 0QUJNJ[BUJPO PQUJNJ[BUJPO NBLJOH CBTFE PO UPUBM DPTU NBYJNJ[JOH JOWFTU MJGFUJNF CFOFGJU DPTU NBYJNJ[JOH JOWFTU
3JTL 5SBOTGFS 1SPDMFNT MFBE UP NVUVBM CMBNF XJUI UIF DMJFOU BT UIF VMUJNBUF SJTL CFBSFS	3JTL *OUFSOBMJ[BUJPO 5*"/4 SFTPMWFT BMM JOUFS EJTDJQMJ JTTVFT JOUFSOBMMZ EFMJWFSJOH DF UP UIF DMJFOU

1JMPU 1MBUGPSN

'SPN MBCPSBUPSZ éáBTLT UP GBDJMJUZ QSPEVDUJPO MJOFT VQ UP BDIJFWFNFOUT GBJM UP CF TDBMFE VQ EVF UP DIBMMFOHFT TDBMJOH BOE DPTU PWFSSVOT 5IF 5*"/4 1JMPU 1MBUGPSN OPU PO UP FOE WBMJEBUJPO TFSWJDFT GSPN NJDSP TDBMF CVU BMTP U MBCPSBUPSZ TBNQMFT JOUP JOEVTUSJBM HSBEF QSPEVDUT XJUI TDB DBQBCJMJUJFT 5IJT QMBUGPSN TZTUFNBUJDBMMZ CSJEHFT UIF ó+MBT UFDIOPMPHJDBM GFBTJCJMJUZ BOE DPNNFSDJBM TVDDFTT

1MBUGPSN $BQBCJMJUJFT BOE %BUB 'PVOEBUJPO

)BSEXBSF *OGSBTUSVDUVSF [FQ®FE XJUI NPSF UIBO UZQFT PG TQFDJBMJ[FE QJMPU TDBMF QSPEVDUJPO MJOFT JODMVEJOH DPOU UFNQFSBUVSF IJHI QSFTTVSF TZTUFNT EJTUJMMBUJPO QVSJGJDE

*O BEEJUJPO UP QSPWJEJOH WBMJEB

B ó+QJMPU EBUB QBDLBHFó+ EJSFDUMZ BQQMJDBCMF UP

ó+NPEVMBS QSPDFTT QBDLBHFó+ XJUI IJHI SFQMJDBCJMJUZ

$PTU 1SFDJTJPO "DDPVOUJOH BOE 0QUJNJ[BUJPO -FWFSB
TDBMF EBUB BO BDDVSBUF ó+NBUFSJBM CBMBODF BOE FOFS
NPEFMó+ JT FTUBCMJTIFE GBDJMJUBUJOH QSPEVDUJPO DPTU DB
FSSPS SBUF JO GJOBM NBTT QSPEVDUJPO DPOUSPMMFE XJUIJO
SPCVTU EBUB TVQQPSU GPS JOWFTUNFOU EFDJTJPOT BOE QSPEVD

3FMJBCJMJUZ BOE 5JSF VHTTUJNJMBUJOH FYUSFNF DPOEJUJPOT
BOE DPOEVDUJOH MPOH UFSN PQFSBUJPOT DPOUJOVPVT TUBC
BDDFMFSBUFE BHJOH UFTUT XJUI B EVSBUJPO PG óI IPVST BSF D
FOTVSF UIBU UIF QSPEVDU QFSGPSNBODF BOE UIF TFSWJDF MJGF F
DSJUJDBM DPNQPOFOUT NFFU DPNNFSDJBM SFRVJSFNFOUT .FBC
QSPEVDUJPO GBJMVSF SBUFT BSF SFEVDFE CZ NPSF UIBO

4BGFUZ BOE &OWJSPONFOUBM $PNQMJBODF 1SF SFWJFX $
SFBDUJPO TBGFUZ SJTL BTTFTTNFOUT JOJUJBM QSPDFTT WBMJE
XBTUF USFBUNFOU QSPDFTT WBMJEBUJPO BSF DPOEVDUFE UP
QSPDFTT SPVUF JT JOIFSFOUMZ TBGF BOE FOWJSPONFOUBMMZ DP
SFNPWJOH NBKPS PCTUBDMFT UP QSPKFDU BQQSPWBM BOE QSPEVI

5BMFOU 5SBJOJOH BOE %PDVNFOUBUJPO WBMJEBUJPO
QSPDFTT NPSF UIBO DPSF QSPDFTT FOHJOFFST BOE PQFSBU
GPS DMJFOUT BOE TUBOEBSEJ[FE QSPDFTT QBDLBHFT 1%1
PQFSBUJPOBM QBSBNFUFST BOE 4UBOEBSE 0QFSBUJOH 1SPD
EFMJWFSFE SFBMJ[JOH UIF EVBM JNQMFNFOUBUJPO PG ó+UFDIOJD
ó+UBMFOU USBOTGFSó+

3*OEVTUSZ "DBEFNJB 3FTFBSDI "QQMJDBUJPO $PMMBC
5IF 5*"/4 1JMPU 1MBUGPSN IBT QJPOFFSFE B EJTUS
BMMJBODF PG QJMPU CBTFT 5ISPVHI FRVJQNFOU

.PEVMBS 1SPDFTT 6OJUT

*O USBEJUJPOBM FOHJOFFSJOH NPEFMT GBDJMJUZ DPOTUSVDUJPO J
TDVMQUJOH GSPN TDSBUDI+ B QSPDFTT NBSLFE CZ MPOH UJNFMJC
RVBMJUZ BOE DPTU PWFSSVOT 5*"/4 SFWPMVUJPOJ[FT DPOTUSVDU

#Z UIF FOE PG XF IBE TVDDFTTGVMMZ EFMJWFS
TUBOEBSE QPSUBCMF VOJUT BDSPTT FJHIU DPSF QSPDFT
.73 FWBQPSBUJPO DSZTUBMMJ[BUJPO FMFDUSP
DPOUJOVPVT GMPX IZESPHFOBUJPO BOE IB[BSEPVT C
"MM QSPKFDUT BDIJFWFE B POF UJNF BDDFQUBOD
EFMJWFSBCMFT IBWF DSFBUFE UBOHJCMF WBMT#@Ð±"KFD
0 B@@ þÝ†`

25*"/4 *OUFMMJHFOU *OTUBOUBOFPVT4UZTUFN JOVPVT 4UFSJN
%Fæ(OJOH BO *OEVTUSZ UISPVHI B %JTUJODU $BUFHPSZ

DBQJUBMJ[F PO NBSLFU PQQPSUVOJUJFT

- 4FBNMFTT 5FDIOPMPHJDBM 6QSBEFT JOOPWBUJP

PDDVS TQFDJGJD NPEVMFT DBO CF JOEFQFOEFOUMZ XJUIPVU TDSBQQJOH FOUJSF QSPEVDUJPO MJOI JOWFTUNFOUT

- (SFFO BOE 4VTUBJOBCMF EFTJHO FOBCMF EJTBTTFNCMZ BOE SFMPDBUJPO UIFSFCZ NBYJNJ[JOH UI FOUJSF MJGFDZDMF

#*. *NQMFNFOUBUJPO

5ISPVHI FYUFOTJWF BQQMJDBUJPO JO PWFS DPNQMFY QSPKFD
QSPHSFTTFE CFZPOE CBTJD NPEFMJOH UP FTUBCMJTI B DPNQSFI
DPMMBCPSBUJPO FDPTZTUFN *U IBT BDIJFWFE B USJQMF MF
T„€3 SFBMJ[BUJPO M@ SUMMIJJ0CPEP Ñ.P

D

GBDJMJUZ BOE JT SJDI JO DSJUJDBM FOHJOFFSJOH EBUB

- 0QFSBUJPOBM &&DJFODZ FE TJNVMBUJPO BOE EJBH

JNQSPWF JOTQFDUJPO BOE GBVMU SFTPMVUJPO SBUFT CZ

- $PTU 4BWJOHT FOUJWF NBJOUFOBODF BOE FOFSH

PQUJNJ[BUJPO DBO SFEVDF MJGF DZDMF PQFSBUJOH DPT

%JHJUBM %FMJWFSZ

5P EFMJWFS USBDFBCMF TJNVMBUBCMF BOE PQFSBCMF EJ
UP DMJFOUT UPHFUIFS XJUI QIZTJDBM GBDJMJUZ 5*"/4 IBT
JOUFHSBUFE EBUB DIBJO DPWFSJOH EFTJHO QSPDVSFNFOU DPC
PQFSBUJPO 6UJMJ[JOH IJHI QSFDJTJPO % NPEFMT BT WJTVB
TUSVDUVSFE EBUB BT UIF DPSF JU FTUBCMJTIFT B TUBUJD NBQ
PDW @@QQFð éàlW VPSF D@VBQJMEUJF

2)JHI 1SFDJTJPO .PEFMJOH BOE %BUB -JOL

5*"/4 %JHJUBM FOHJOFFST BSF QSPGJDJFOU JO V
JOUFSOBUJPOBM QMBUGPSNT TVDI BT 41 % GF
DPMMBCPSBUJWF EFTJHO BDSPTT BMM EJTDJQMJO
TQFDJBMUJFT DPOEVDU SFBM UJNF TZODISPOPVT XPSL
TQBDF XJUI EBUB TZODISPOJ[FE JO SFBM UJNF 5IF
EFUFDUJPO GFBUVSF FTUBCMJTIFT B SBQJE ó+EFTJHO
NFDIBOJTN 1SPWFO JO QSBDUJDF UIJT BQQSPBDI SF
DIBOHFT BOE SFXPSL CZ BO BWFSBHF PG BQQSPYJNBUF
SFEVDJOH QSPKFDU DPTUT BOE UJNF

3)JHI 1FSGPSNBODF 5FBN)JHI &æ*DJFODZ 0SHBC

'PS FBDI EJHJUBM EFMJWFSZ QSPKFDU B EFEJDBUFE
FTUBCMJTIFE XIJDI JT MFE CZ B %JHJUBM %FMJWFSZ .
QSPGFTTJPOBM LOPXMFEHF GSPN UIF EFTJHO QSP
*5 TFDUPST 5IF FOUJSF QSPDFTT GSPN QSPKFDU J
GPSNVMBUJPO UP BDDFQUBODF BOE EFMJWFSZ JT TUSFE
QMBUGPSN "T B SFTVMU UIF PO UJNF QSPKFDU EFMJWFS
UIF DPTU XBTUF DBVTFE CZ JOGPSNBUJPO FSSPST BOE
SFEVDFE CZ UP

4'VMM $ZDMF 2VBMJUZ $POUSPM %FMJWFSJOH 5SVTUXPSUIZ
5*"/4 %JHJUBM %FMJWFSZ 5FBN DPOTJTUFOUMZ BEIFSFT UP EB
DPOTJTUFODZ DPNQMFUFOFTT BOE DPNQMJBODF BT DPSF QSJODJ
TUSJDU NPEFM UFTUJOH BOE EBUB WFSJGJDBUJPO QSPDFTTFT JU
EJHJUBM NPEFMT BSF QSFDJTFMZ BMJHOFE XJUI EFTJHO ESBXJ
GBDJMJUJFT FRVJQNFOU MJTUT FUD 5IJT BQQSPBDI MFBET UP UIF E
RVBMJUZ EJHJUBM UXJOT UIBU BDDVSBUFMZ NJSSPS SFBM XPSME GE

1SBDUJDF EFNPOTUSBUFT UIBU TUSJDU RVBMJUZ DPOUSPM SFEVD
DPOéáJDUT JO EFTJHO DPMMBCPSBUJPO CZ PWFS OPUBCMZ FOIB
NBLJOH FGGJDJFODZ .FBOXIJMF JU TBWFT NPSF UIBO P
QSFQBSBUJPO UJNF BOE DPTUT GPS BEWBODFE BQQMJDBUJ
NBJOUFOBODF BOE JOUFMMJHFOU JOTQFDUJPO BGUFS GBDJMJUZ DPN

5&NQPXFS 'VUSF 4NBSU 0QFSBUJPOT %FMJWFSZ JT +VTU UIF
5IF VMUJNBUF WBMVF PG EJHJUBM USBOTGPSNBUJPO MJFT
PQFSBUJPOT 5*"/4 JT BDUJWFMZ QSPNPUJOH BOE XJMM DPOUJ
UIJT JOJUJBUJWF

&OIBODF %BUB "TTFU .BOBHFNFOU 3#5 BOE 6UJMJ[BUJPO
UIF FYJTUJOH NBUFSJBM EBUBCBTF FTUBCMJTI FOUFSQSJTF
&RVJQNFOU %BUBCBTFTó+ BOE ó+5ZQJDBM %FTJHO .PEVMF -JCSB
UIF JOUFHSBUJPO PG EJHJUBMMZ EFMJWFSFE TUBUJD EBUB XJUI S

EBUB F H %$4 EBUB EVSJOH GBDJMJUZ NBJOUFOB
GPVOEBUJPO GPS BEWBODFE BQQMJDBUJPOT TVDI BT
BOE JOUFMMJHFOU JOTQFDUJPOT

&TUBCMJTI B 6OJGJFE %5FWCKZDUMBUGJTN
JOUFHSBUF JOUFMMJHFOU TPGUXBSF XJUI NVMUJ TPV
NBOBHFNFOU BOE QSPHSFTT USBDLJOH DSFBUJOH
VOJGJFE EJHJUBM EFMJWFSZ QMBUGPSN *U OPU PO
NPEFM CSPXTJOH CVU BMTP TVQQPSUT SBQJE EBUB SFU
SFHJPO MJOLFE EPDVNFOU BDDFTT DPOTUSVDUJPO TJ
GVODUJPOT VMUJNBUFMZ EFMJWFSJOH B ó+TDBMBCM
GBDJMJUZ DPSF

#Z UIF FOE PG EJHJUBM USBOTGPSNBUJ
TVDDFTTGVMMZ EFMJWFSFE GPS MFBEJOH EPNFTUJD G
JODMVEJOH +VIVB (SPVQ BOE 5JBOKJO #PIBJ DIFNJDBM JO

"VUPNBUJPO BOE *OGPSNBUJ[BUJPO

*O JOEVTUSJFT XJUI DPNQMFY DPOUSPM MPHJD BOE IJHI SFHVMBU
BT éàOF DIFNJDBMT TZOUIFUJD CJPMPHZ BOE CJPQIBSNBDFVUJDBM
EJHJUBM USBOTGPSNBUJPO PGUFO GBDFT DIBMMFOHFT TVDI BT T
JOWFTUNFOU MPX JNQMFNFOUBCJMJUZ PG TPMVUJPOT BOE IJ
BOE FSSPST #Z MFWFSBHJOH PWFS B UIPVTBOE QSPDFTT B
JOGPSNBUJ[BUJPO QSPKFDUT JO UIF JOEVTUSJBM TFDUPS 5*"/4
NVMUJQMF QSPDFTT JOUFHSBUFE TPMVUJPOT UIBU BSF DMP
QSPEVDUJPO TDFOBSJPT TZTUFNBUJDBMMZ SFTPMWJOH UIF DPS
FéâDJFODZ DPNQMJBODF BOE DPTU

1 1SPDFTT 5FDIOPMPHZ -FBEJOH 'VMM 1SPDFTT "VUPNBUJPO
5*"/4 IBT FTUBCMJTIFE B DSPTT EJTDJQMJOBSZ F
Ę®ÙDNP1NFQUBBTJT JOH QR E@FT

TDFOBSJPT TVDI BT DIFNJDBM TZOUIFTJT CJPUFDIO
BOE CJPNFEJDBM BQQMJDBUJPOT B DPSF DPOUSPM
EFWFMPQFE 5IJT BMMPXT DVTUPNFST UP JOEFQFOEFOU
BOE NBOBHF QSPEVDUJPO SFDJQFM

PGGFSFE XIJDI FODPNQBTT QFSGPSNBODF PQUJNJ[BUJPO BOE NBJOUFOBODF FOBCMJOH DMJFOUT UP BUUBJO TVTUBJOFE F QSPEVDUJPO FéâDJFODZ

2-JHIU 1SPEVDUJPO .BOBHFNFOU 4ZTUFN

5P DJSDVNWFOU UIF DIBMMFOHFT PG EJHJUBM USBOTGPSN IJHI DPTUT BOE QSPUSBDUFE DZDMFT B GMFYJCMF FGGJDJFOU QSPEVDUJPO NBOBHFNFOU TZTUFN XBT EFWFMPQFE CBTFE PO UIF PG MJHIU EFTJHO NPEVMBSJUZ BOE FBTF PG EFQMPZNFOU

5IF DPSF QSPEVDU -JHIU .BOVGBDUVSJOH &YFDVUJPO 5 .&4 JT DIBSBDUFSJ[FE CZ ESBH BOE ESPQ QSPDFTTFT BOE QMBZ DPNQMJBODF TJHOJéàDBOUMZ SFEVDJOH UIF BQQMJDBUJPO %SBH BOE %SPQ 6MUSB 5BFUZFEFMJDDHDPSQPSBUFT OFBSMZ QSF CVJMU VOJWFSTBM CVTJOFTT DPNQPOFOUT 1SP DBO DPOGJHVSF QSPEVDUJPO XPSLGMPXT CZ TJNQMZ E DPNQPOFOUT BOE UIF TZTUFN BVUPNBUJDBMMZ HFOFSBUFT FMF 5IJT JOOPWBUJPO TIPSUFOT UIF NPEFMJOH BOE EFQMPZNFOU DZDM UP IPVST

0VU PG UIF #PY $PN4QUBJDBEBSE J[FE DPNQPOFOUT TVDI BT FMFDUSPOJD TJHOBUVSFT BOE BVEJU USBJMT SFEVDF WBMJEBUJP FOTVSJOH FéâDJFOU BOE DPNQMJBOU JNQMFNFOUBUJPO

"* QPXFSFE 1SPEVDUJPO *OU#FZMJMQUIFHSBEJOH PQFO

TPVSDF "* NPEFMT XJUI FOUFSQSJTF LOPXMFEHF CBTF
SVMFT BOE FYQFSUJTF UP QSPWJEF JOUFMMJHFOU EFD
BMFSUT BOE QSPDFTT PQUJNJ[BUJPO

TVDDFTTGVMMZ BQQMJFE JO MFBEJOH EPNFTUJD CJPQIBSNBDFVUJ
TVDI BT #FJ(FOF 2JMV "OUF 1IBSNBDFVUJDBM BOE)VBTIFOHZVBO

47BMVF -PPQ GSPN 4UBCMF 1SPEVDUJPO UP *OUFMMJHFOU 0QFS
5IF 5*"/4 "VUPNBUJPO BOE *OGPSNBUJ[BUJPO 5FBN JT CE
QSPDFTT FYQFSUJTF BOE DVTUPNFS WBMVF #Z JNQMFNFOUJOH
BVUPNBUJPOó+ JU FTUBCMJTIFT B TUBCMF FGGJDJFOU BOE D
QSPEVDUJPO GPVOEBUJPO XIJMF UIF ó+MJHIU QSPEVDUJPO NBOBH
DSFBUFT B GMFYJCMF BOE JOUFMMJHFOU EJHJUBM NBOBHFN
5IJT TZOFSHZ DPOTUSVDUT B GVUVSF PSJFOUFE TVTUBJOBCMF
JOOPWBUJWF EJHJUBM QMBUGPSN GPS NBOVGBDUVSJOH FOU
SFMJBCMF BOE BHJMF GPVOEBUJPO GPS TNBSU GBDUPSJFT

*O UIF FSB PG UIF FYQMPTJWF HSPXUI PG BSUJG
UFDIOPMPHZ 5*"/4 IBT BTUVUFMZ DBQUVSF UIF QVI
USBOTGPSNBUJPO #FZPOE TJNQMF EJHJUBM DPOOFDUJW
UP JOUFMMJHFOU HFOFSBUJPO BOE EFDJTJPO NBLJOH #
JOUP BMM BTQFDUT PG FOHJOFFSJOH EFTJHO QSPDF
CVTJOFTT PQFSBUJPOT 5*"/4 IBT BDIJFWFE B QSPGPVO
ó+"* FOHJOFFSJOHó+ 5IJT JOUFHSBUJPO IBT OPU PC
EFMJWFSZ FéâDJFODZ CVU BMTP BDIJFWFE B QBSBEJHN T
ESJWFOó+ UP ó+EBUB ESJWFOó+ EFDJTJPO NBLJOH SFE
TUBOEBSET JO FOHJOFFSJOH TFSWJDFT

1"*($ ESJWFO *OUFMMJHFOU %FTJHO 'SPNö$PDFQUJPO
5*"/4 UBLFT UIF MFBE JO BEPQUJOH HFOFSBUJWF BS
"*($ UFDIOPMPHZ PWFSDPNJOH UIF UFNQPSBM BOE
PG USBEJUJPOBM FOHJOFFSJOH EFTJHO 5IJT JOOPW
BQQFBMJOH BOE EFDJTJPO TVQQPSUJOH EFTJHO TPMVUJP

*OTUBOUBOFPVT 'BDBEF 3FOEFSJOH 1PXFSFE CZ P
JOEVTUSJBM BSDIJUFDUVSF TUZMF NPEFM EFTJHOFST PO
QBSBNFUFST BOE TUZMF LFZXPSET BOE UIF "* DBO H
IJHI RVBMJUZ GBDBEF SFOEFSJOHT JO EJWFSTF TUZMFT

JOOPWBUJPO OPU POMZ TIPSUFOT UIF EFTJHO DZDMF CZ PWFS
BMMPXT DMJFOUT UP DPNQBSF WJTVBM TPMVUJPOT GSPN NVMUJQ
EVSJOH UIF FBSMZ TUBHF PG UIF QSPKFDU SFBMJ[JOH UIF WJTJP
UIJOL JT XIBU ZPV TFFó+

4JUF -BZPVU 1MBOOJOH #BTFE PO %FTJHO %FEVDUJP
VQPO 5*"/4 FYQFSJFODF GSPN PWFS QSPKFDUT PVS "*
GPSNVMBUFT NVMUJQMF TJUF MBZPVU QMBOT BDDPSEJOH UP TJUF Q
GMPX MPHJD BOE MPHJTUJDT SFRVJSFNFOUT #Z NFBOT PG "* B
TJNVMBUF MBOE VUJMJ[BUJPO MPHJTUJDT DPTUT BOE FOFSHZ F
DMJFOUT JO QSPNQUMZ JEFOUJGZJOH PQUJNBM MBZPVUT UP PQUJNJ

21SPDFTT *OUFMMJHFODF #SBJO .BTTJWF %BUB "DDVNVMBUJPO 1SFDJTF %FDJTJPO .BLJOH

ó+1SPDFTT DFOUSJDJUZó+ DPOTUJUVUFT UIF DPSF DIBSBDUFSJT
"* GVODUJPOT BT B QPUFOU FOHJOF UP BDUJWBUF UIJT DPSF B
EFWFMPQNFOU 5ISPVHI JO EFQUI BOBMZTJT BOE TUSVDUVSF
PG QSPDFTT EBUB GSPN PWFS B UIPVTBOE QSFWJPVT QSPKF
FTUBCMJTIFE BO JOEVTUSZ MFBEJOH ó+1SPDFTT *OUFMMJHFODF #S

1SPDFTT %BUB "DDVNVMBUJPO BOE 5E"/4OPXMFEHF (SBQI
IBT EJHJUJ[FE UIF FYQFSUJTF PG PWFS QSPDFTT UFDIOPMP
BOE FYUFOTJWF FOHJOFFSJOH EBUB JODMVEJOH NBUFSJBM
DPOTVNQUJPO EBUB FRVJQNFOU TFMFDUJPO QBSBNFUFST FU

BTTFUT BOE USBJOFE TQFDJBMJ[FE WFSUJDBM NPEFMT
BT éà OF DIFNJDBM FOHJOFFSJOH TZOUIFUJD CJPMPHZ BO
"TTJTU JO %FDJTJPO .BLJOH "DDFMFSBUJPO %
GFBTJCJMJUZ TUVEZ BOE DPODFQUVBM EFTJHO TUBHFT
UP SBQJEMZ QSFEJDU DSVDJBM QSPDFTT QBSBNFUFST B
PGGFSJOH RVBOUJGJBCMF EBUB TVQQPSU GPS UIF DPN
UFDIOJDBM SPVUFT 5IJT FOBCMFT DMJFOUT UP NBLF X
BOE JNQSPWFT UIF QSPKFDUó,T JNQMFNFOUBCJMJUZ

3 $VTUPNJ[FE 4PMVUJPOT #BTFE PO *OEVTUSZ *OTJHIUT

5*"/4 JOOPWBUJWFMZ JOUFHSBUFT BOE DPOTUSVDUT

5*"/4 .PEFM

#Z TFBNMFTTMZ JOUFHSBUJOH TUBUF PG UIF BSU "* UFD
5*"/4ó, QSPGPVOE QSPDFTT BDDVNVMBUJPO MJGFDZDMF &1$
JOEVTUSZ TQFDJGJD JOTJHIUT XF BSF MFBEJOH B OFX FOHJOFF
XIFSF ó+WJSUVBM HVJEFT SFBMJUZ EBUB ESJWFT EFDJTJPO NBLJO

5IF SFRVJSFNFOUT GPS (.1 DPNQMJBODF BOE WBMJEBUJ
BOE JOUFSOBUJPOBM (.1 TUBOEBSET BOE HVJEFMJ
GSPN SFMBUFE PSHBOJ[BUJPOT BSF CFDPNJOH JODSFE
TZTUFNBUJD UIJOLJOH BOE MPOH UFSN QSBDUJDF 5

5*"/4 .PEFM

PG ó+QPTU FWFOU TVQQMFNFOUBSZ WBMJEBUJPOó+ BOE EFFQMZ JO
XPSL JOUP FWFSZ QIBTF PG QSPKFDU DPOTUSVDUJPO "EIFSJOH U
BEWBODFE DPODFQUT TVDI BT *$) 2 BOE *41& $ 2 UI
TFSWJDFT BSF UIPSPVHIMZ JODPSQPSBUFE JOUP UIF GPMMPXJOH U

%FTJHO 1IBTF 1SPBDUJWF *OUFSWFOUJPO %FéàOJOH 2VBM

5IF WBMJEBUJPO UFBN QBSUJDJQBUFT GSPN UIF QSPKFD
QBSUJDJQBUJOH JO BOE SFWJFXJOH UIF EFéàOJUJPO BOE FWBMV
2VBMJUZ "UUSJCVUFT $2"T BOE $SJUJDBM 1SPDFTT 1BSBNFUFS
CPUI DPNQMJBODF BOE DVTUPNFS OFFET QFSTQFDUJWFT E
JEFOUJGJDBUJPO PG $SJUJDBM $POUSPM &MFNFOUT $$&T $%&T
UIBU UIF EFTJHO PVUQVU JT WFSJGJBCMF GSPN UIF CFHJOOJO
GPVOEBUJPO GPS TVCTFRVFOU DPNQMJBODF BOE UIFSFCZ SFEVDJ
MBUF TUBHF DIBOHFT DBVTFE CZ EFTJHO EFGFDUT CZ BQQSPYJNBU

(&1 1IBTF 2VBMJUZ 0SJFOUFE 4UBOEBSEJ[FE *NQMFNFOUB

%VSJOH UIF (PPE &OHJOFFSJOH 1SBDUJDF (&1 QIBTF UIF WE
UFBN BEPQUT B (.1 PVUDPNF ESJWFO BQQSPBDI CZ FTUBCMJ
RVBMJUZ SFRVJSFNFOUT GPS DSJUJDBM DPOUSPM QPJOUT 5I
PSJFOUFE NFUIPEPMPHJFT XF TUBOEBSEJ[F DPOTUSVDUJPO BO
JOTUBMMBUJPO UP FOTVSF UIBU BMM XPSL DPNQMJFT XJUI SFHVI
5IJT NFUIPEPMPHZ BDIJFWFT B SFEVDUJPO PG PWFS IO 0UH•

%FMJWFSZ BOE 6TBHF 1IBTF 1SPGFTTJPOBM 5F

)BOEPWFS

1SJPS UP TZTUFN EFMJWFSZ UIF WBMJEBU

TUBOEBSEJ[FE DPNNJTTJPOJOH BOE RVBMJGJDBUJPO

02 XJUI QSPGFTTJPOBM QSPGJDJFODZ 5IJT FOTVSFT U

FRVJQNFOU BSF USBOTGFSSFE UP DVTUPNFST JO B T

TUBUF XIJMF TVQQPSUJOH TVCTFRVFOU QFSGPSNBODF I

FOTVSF QSPEVDUJPO DPOUJOVJUZ BOE QSPDFTT SFMJBCJ

24ZODISPOPVT 2VBMJæ(DBUJPO GPS &æ*DJFODZ BOE

5IF TUSJDU JNQMFNFOUBUJPO PG ó+TZODISPOPVT F

BT UIF GPVOEBUJPO GPS UIF GVMM MJGFDZDMF DPNQM

5*"/4 WBMJEBUJPO UFBN #Z JOUFHSBUJOH WFSJGJDBU

QIBTF PG QSPKFDU DPOTUSVDUJPO BOE HFOFSBUJOH DP

SFBM UJNF XF TIPSUFO UIF BWFSBHF QSPKFDU DZDMF CZ

TBWJOH DMJFOUTó, UJNF BOE BVEJU DPTUT

ó+TZODISPOPVT RVBMJéàDBUJPOó+ % NPEFM

1SPKFDU 1IBTF $PSF "DUJWJUJFT %FMJWFSBCM		
6TFS 3FRVJSFNFOUT 634	$PNNVOJDBUF BOE SFWJFX UIF BQQMJDBCJMJUZ BOE DPNQMJBODF PG 634	&OTVSF SFRVJSFNFOU EPDVNFOUT NFFU WBMJEBUJPO TUBOEBSET UP BWPJE DMBVTFT TVCTFRVFOU EFWJBUJPOT
%FTJHO 1SPDVSFNFOU	3FWJFX EFTJHO EPDVNFOUT BOE ESBXJOHT QBSUJDJQBUF JO UFZ FRVJQNFOU TFMFDUJPO '"5	$POEVDU EFTJHO BOE FWBMVBUJPO UFTUT BOE JOTQFDUJPOT PG FRVJQNFOU BOE SFDPSET
$POTUSVDUJPO *OTUBMMBUJPO	$POEVDU SFBM UJNF JOTQFDUJPOT PG LFZ FMFNFOUT DPMMFDUJPOT FRVJQNFOU EBUB BOE SFDPSET	&OTVSF DPOTUSVDUJPO RVBMJUZ DPOUSPM BOE SFBM UJNF EBUB DPMMFDUJPO BSDIJWJOH QSPWJEJOH GPS DPOéàSNBUJPO SFQPSUT
$PNNJTTJPOJOH 2VBMJéàDBUJPO	-FBE SJTL BTTFTTNFOUT %2 FUD UP FOTVSF TUBOEBSET QSPDFTTFT	%FMJWFS B DPNQMFUF BOE DPNQMJBOU WBMJEBUJPO QBDLBHF FOTVSJOH TNPPUI TZTUFN IBOEPWFS BOE SFHVMBUPSZ SFMFBTF

"T UIF ó+GJOBM TUBHFó+ PG &1$ QSPKFDUT USJBM SVO
UIF QSPKFDUó,T EFMJWFSBCMFT BOE UIF DMJFOUó,T SFUV
PO PWFS QSPKFDU JNQMFNFOUBUJPOT BOE NPSF U
SFWJFXT 5*"/4 IBT NBEF EVBM CSFBLUISPVHIT JO N
FYFDVUJPO *U IBT BDDPNQMJTIFE UIJT CZ FTUBCMJTIJOH
QMBUGPSN BOE TUBOEBSEJ[JOH QSPDFTT SF FOHJOFFS.

ESJWFO CZ TUBOEBSEJ[FE QSPDFEVSFT BOE EBUB GBDJMJUBUJO
USBOTGPSNBUJPO PG USJBM SVOT GSPN CFJOH ó+SFMJBOU PO FN
UP ó+HVBSBOUFFJOH TZTUFN QFSGPSNBODFó+ &WFO XIFO GBDFE X
ó+QSPDFTT CMBDL CPYFTó+ JU BMMPXT GPS UIF PCKFDUJWF
BTTFTTNFOU PG XIFUIFS UIF UFDIOPMPHZ NFFUT UIF SFRVJSFE TUE

*O B MBSHF TDBMF BOUJCJPUJD QSPKFDU QSF JOUFSWFOUJ
SVO WFSJGJDBUJPO QMBUGPSN JEFOUJGJFE BOE SFTPMWFE
BEWBODF 5IJT SFTVMUFE JO B SFEVDUJPO JO UIF USJBM SV
FOBCMFE UIF DMJFOU UP BDIJFWF DPNQMJBODF BOE QSPEVDUJ
EBZT BIFBE PG TDIFEVMF

2-JGFDZDMF 4FSWJDF BOE .VMUJEJNFOTJPOBM &NQPXFSNFO
5*"/4 JOUFHSBUFT JUT UFTU WBMJEBUJPO UFBN BOE TUBOEBSE
UISPVHIPVU UIF QSPKFDU MJGFDZDMF FOTVSJOH CPUI ó+POF UJNF
SVOó+ BOE ó+MPOH UFSN TUBCMF PQFSBUJPOó+

1SPDFTT 0QUJNJ[BUJPO BOE 'SBNFXPSL %FWFMPQNFOU JO UIE
FWBMVBUJPO EVSJOH UIF QSPDFTT QBDLBHF SFWJFX BOE)";
QIBTFT QSFTFOUJOH SFDPNNFOEBUJPOT GPS QSPDFTT TBGFUZ BO
PQUJNJ[BUJPO CBTFE PO BDUVBM PQFSBUJPOBM FYQFSJFODF 5ISPVHI UI
*.JMFTUPOF 3FWJFX XPSLTIPQT BSF VTFE UP EFFECBDL JT JODPSQPSBUFE
NBOEBUPSZ DMPTVSF DSJUFSJPO GPS UIF BOE EFTJHO NPEF
FMJNJOBUJOH EFTJHO EFGFDUT BU UIF TPVSDF

" TUBOEBSEJ[FE DIFDLMJTU TZTUFN J
SFWJFX 1 *%T FRVJQNFOU MBZPVU ESBXJOHT FUD FOT
BMJHOT XJUI UIF BDUVBM PQFSBUJPOBM BOE NBJOUFOB
*%PDVNFOU 4JHO PGG "VUPNBUFE TZTUFN DSJUJDBM F
NVTU CF DP TJHOFE CZ UIF USJBM SVO WFSJGJDB
0 . SFRVJSFNFOUT JOUP DPOTUSVDUJPO ESBXJOHT
NPEJéàDBUJPOT

1SPDVSFNFOU BOE $POTUSVDUJPO 1MBOT BHSFFNFO
TIBMM DMFBSMZ EFéàOF SFRVJSFNFOUT GPS PQFSBUJPOBM
UPPMT JODPSQPSBUJOH DPNNJTTJPOJOH BOE PQFSBUJPO
DMBVTFT JOUP UIF CJEEJOH GSBNFXPSL 5FDIOJDBM 4QFD
$PNNJTTJPOJOH 1SPDFEVSFT TVQFSWJTF JOTU
DPNNJTTJPOJOH FOTVSJOH UIBU UIF QIZTJDBM DPOTUSVD
EFTJHO JOUFOU

5SJBM 3VO &YFDVUJPO 1SPDFEVSFT JUWFSZSJBM SVO
5SJBM 3VO 0QFSBUJPO &YFDVUJPO SFTQPOTF
GPSNVMBUFE %VSJOH UFSJBM SVO QFSBUJPOBM .BOVBM
UIF FYQFSU UFBN DPMMBCPSBUF UISPVHIPVU UP FOTVS
TNPPUI QSPHSFTT

*O B WJUBNJO # QSPKFDU JU BDIJFWFE POF UJN
SVO BDIJFWJOH TUBCMF QSPEVDUJPO XJUIJO POMZ EB
DPNQMFUJPO XIJDI JT TIPSUFS UIBO UIF JOEVTUSZ BW

35ISFF TUBHF 4ZTUFNBUJD 7BMJEBUJPO &OTVSFT 3FMJBCMF

5*"/4 JNQMFNFOUT UIF QSPHSFTTJWF QSJODJQMF PG ó+USBOTJ TUBOEBMPOF UP TZTUFN JOUFHSBUJPO BOE GSPN OP MPBE UP PQFS B UISFF QIBTF WBMJEBUJPO QSPDFTT OBNFMZ TJOHMF NBDI DPPSEJOBUFE USJBM SVO BOE NBUFSJBM MPBE USJBM SVO JU FRVJQNFOU QFSGPSNBODF TZTUFN TZOFSHZ BOE QSPDFTT 4VQQPSUFE CZ TUBOEBSEJ[FE QSPDFEVSFT BOE FYQFSU UISPVHIPVU UIF QSPKFDU BUUBJOT JUT DPSF PCKFDUJWF PG ó+PC USJBM SVO BOE MPOH UFSN TUBCMF PQFSBUJPOó+ EFMJWI EFMJWFSBCMFT UIBU JT QSPEVDUJPO SFBEZ

0OF UJNF 4VDDFTTGVM 5SJBM 3

*O FOHJOFFSJOH JOEVTUSZ ó+POF UJNF TVDDFTTGVM U
NFSF QMFEHFT JU SFQSFTFOUT B DPNQSFIFOTJWF BTTF
TZTUFNT PSHBOJ[BUJPOBM DBQBCJMJUJFT 5*"/4 BOE EFMJV
XBT UIF GJSTU UP TZTUFNBUJDBMMZ JNQMFNFOU UI
JOEVTUSZ BOE DPOUJOVPVTMZ WBMJEBUFT JU UISPVHI N
B NPEFM DIBSBDUFSJ[FE CZ FOE UP FOE QSPDFTT DPOUS
JOUFHSBUJPO BOE MJGFDZDMF FNQPXFSNFOU XF GVC
DMJFOUTó, VODFSUBJOUJFT SFHBSEJOH QSPEVDUJPO U
PVUDPNFT *O EPJOH TP XF IBWF SFEFéàOFE UIF CFODINB
EFMJWFSZóLQSPQFMMJOH UIF JOEVTUSZ GSPN USBEJUJPO
IBOEPWFSó+ UP SFTVMUS ESJWFO ó+FéâDJFOU QSPEVDUJPO
#Z UIF FOE PG 5*"/4 IBE TVDDFTTGVMMZ DPNQ
TVDDFTTGVM USJBM SVO JO PWFS QSPKFDUT TQBO
TVDI BT CJPQIBSNBDFVUJDBM éàOF DIFNJDBMT BOE OFX
FWPMWFE JOUP B SFQFBUBCMF WFSJGJBCMF EFMJWFS
BDUJWFMZ SFTIBQJOH UIF FOHJOFFSJOH JOEVTUSZ UP
SFTVMU PSJFOUFE BOE B WBMVF ESJWFO NPEFM PG TVDD

3FGFSFODF 1SPKFDUT

&YDFMMFODF JT OFWFS BO PWFSOJHIU BDIJFWFNFOU CVU JT DPOUJOVPVT JUFSBUJPO BOE SFGJOFE PWFS UJNF #Z UIF FOE I IBE DPOGSPOUFE DIBMMFOHFT BOE EFMJWFSFE WBMVFT JO PWF FWPMWJOH GSPN BO JOEVTUSZ QBSUJDJQBOU UP B LFZ DIBMMFOH B USBJMCMB[FS 5IJT KPVSOFZ WJWJEMZ FNCPEJFT UIF QIJMPTPQI MFHBDZ JOTQJSJOH JOOPWBUJPO QVSTVJOH QSBDUJDF BOE BTQJ óLSPPUFE JO IFSJUBHF GPDVTFE PO JOOPWBUJPO EFEJDBUFE UP ESJWFO CZ BTQJSBUJPOT

8JUIJO UIJT EFWFMPQNFOUBM GSBNFXPSL FBDI QSPKFDU FNC UFTUJéàFT UP UIJT QIJMPTPQIZ

*OEVTUSZP		3FGFSFODF 1SPKFDUT 1BS
'JOF $IFNJDBMT		+JOHEF[IFO 'VTIJOF -JGF 5FDIOPMPHZ $P -UE 7JOZMFC $BSCPOBUF 7$ &MFDUSPMZUF "EEJUJWFT 1SPKFDU
		)FOBO 1JOHNFJ 4IFONB &MFDUSPOJD /FX .BUFSJBM $P -UE 7BOBEJVN -JRVJE 'MPX &OFSHZ 4UPSBHF &RVJQNFOU /FX .FEJVN 1SPKFDU
		4IBOEPOH ,FIBO 4JMJDPO 4PVSDF /FX .BUFSJBMT $P -UE &MFDUSPOJD HSBEF 4JMJDPO $IFNJDBMT 1SPKFDU
		,JOHCPBSE)FOHZBOH *OEVTUSJBM $P -UE "OOVBM 1SPEVDUJPO PG 5POT PG $IMPSJOF $POUBJOJOH &MFDUSPOJD (SBEF 4QFDJBMUZ (BTFT 1SPKFDU
		5JBOKJO %JT5IF"MM 5FDIOPMPHZ $P -UE UPO &MFDUSPOJD (SBEF &RVJQNFOU QSPKFDU
		4IBOEPOH (JOOP /FX .BUFSJBM 5FDIOPMPHZ $P -UE &MFDUSPOJD HSBEF 0SHBOJD #PSBUF &TUFS 1SPKFDU
		+JOHDIV .FNCSBOF .BUFSJBM :BOHRVBO $P -UE :BOHRVBO 2VBTJ TPMJE 4UBUF .FNCSBOF 1SPKFDU
		+JBOHYJ %FTJ $IFNJDBM $P -UE &MFDUSPOJD $IFNJDBM 1SPKFDU
4ZOUIFUJD #JPMPHZ		*MJ $IVBOOJOH #JPUFDIOPMPHZ $P -UE 'FSNFOUBUJPO "DUJWF 1IBSNBDFVUJDBM *OHSFEJFOUT BOE)JHI FOE "DU 1IBSNBDFVUJDBM *OHSFEJFOUT 1SPKFDU
		:JMJ +JBOHOJOH #JPUFDIOPMPHZ $P -UE (SFFO $JSDVM &DPOPNZ *OEVTUSJBM 1BSL 1SPKFDU
		2JOIVBOHEBP ")# #JPFOHJOFFSJOH $P -UE 4NBMM "NJOP "DJE 1SPKFDU
		#BJZBOOVS ")# #JPUFDIOPMPHZ $P -UE 4NBMM "NJOP "DJE 1SPKFDU
		"OIVJ ")# #JPUFDIOPMPHZ $P -UE "* ESJWFO #JPNBOVGBDUVSJOH 3 % BOE 1JMPU %FNPOTUSBUJPO #BTF 1SPKFDU

*OEVTUSJP		3FGFSFODF 1SPKFDUT 1BS
4ZOUIFUJD #JPMPHZ		*OOFS .POHPMJB &11&/ #JPUFDIOPMPHZ $P -U .POPTPEJVN (MVUBNBUF 1SPKFDU
		,FLFEBMB +JOIBJ #JPUFDIOPMPHZ $P -UE $PSO %FFQ 1SPDFTTJOH 1SPKFDU
		7FEBO *OUFSOBUJPOBM 7JFUOBN $P -UE "N 1SPKFDU
		*OOFS .POHPMJB (VBOHEB -JBOGFOH #JPUFDIO -UE /FX $POTUSVDUJPO PG #JP CBTFE /FX .BU 1IBSNBDFVUJDBM *OUFSNFEJBUFT 1SPKFDU
		*OOFS .POHPMJB 753 #JPUFDIOPMPHZ $P -UE FO[ZNF 1SFQBSBUJPO 1SPKFDU
		$IJGFOH 1IBSNBDFVUJDBM $P -UE)POHTIBO 1SPKFDU
		4IBOYJ +JOCP #JPNFEJDBM $P -UE *OEVTUSJ 1SPKFDU PG 5ZQF ***)VNBO $PMMBHFO
		1PMZXBZ -JBOZVOHBOH #JPUFDIOPMPHZ $P /FX UPOT ZFBS 4USBX CBTFE #JPTZOUIFTJ *OEVTUSJBMJ[BUJPO 1SPKFDU
		4IFOHUBJ #JPUFDIOPMPHZ $P -UE PG 'VGFOH ,B[BLITUBO #JPUFDIOPMPHZ *OEVTUSJBM 1BSL
		$BUIBZ #JPUFDIó,T 'FSNFOUBUJPO $POUJOVPVT 1SPKFDUT BU JUT +JOYJBOH 8VTV BOE 5BJZVE
		;IBPRJOH 4UBS -BLF #JPUFDIOPMPHZ $P -UE GVODUJPOBM 'FSNFOUBUJPO 1JMPU 1MBUGPSN
		8VIBO (SBOE)PZP $P -UE "NJOP "DJE *OEVTU $POTUSVDUJPO 1SPKFDU
		"OHFM :FBTU $P -UE &O[ZNF 1SFQBSBUJPO 1S
		#MPPNBHF #JPUFDIOPMPHZ $P -UE -JGF)FBM 1BSL 1SPKFDU

*OEVTUSZP		3FGFSFODF 1SPKFDUT 1BS
4ZOUIFUJD #JPMPHZ		8BOIVB $IFNJDBM 4JDIVBO $P -UE 'FSNFOUBUJPO 1SPKFDU
		)FJMPOHKJBOH :JIFOH #JPUFDIOPMPHZ $P -UE "OOVBM 1SPEVDUJPO PG UPO ,FZ 5FDIOPMPHZ /FX &O[ZNF 1SFQBSBUJPO 1SPKFDU
		'PSUVOF 1IBSNBDFVUJDBM 5BJYJOH $P -UE /FX 1SPEVDUJPO #BTF 1SPKFDU
		)FOHUPOH *OOFS .POHPMJB #JPUFDIOPMPHZ $P -UE 4NBMM 7BSJFUZ "NJOP "DJE *OEVTUSJBM #BTF 1SPKFDU
		/BOKJOH #JPUPHFUIFS #JPUFDIOPMPHZ $P -UE 3FTFBSD BOE *OEVTUSJBMJ[BUJPO 1SPKFDU PO)JHI &éâDJFODZ /VDMFPUJEF #JPTZOUIFTJT 5FDIOPMPHZ
		$IBOHEF &DPOPNJD BOE 5FDIOPMPHJDBM %FWFMPQNFOU ;POF %FWFMPQNFOU BOE $POTUSVDUJPO #VSFBV 4ZOUIF #JPMPHZ .BOVGBDUVSJOH 1JMPU 5SBOTGPSNBUJPO #BTF 1SPKFDU
		)FOBO .VZVBO "OMJBOH 4ZOUIFUJD #JPUFDIOPMPHZ $P -UE UPOT ZFBS 4ZOUIFUJD #JPMPHJDBM 1SPEVDUT 1SPKFD
		*OOFS .POHPMJB ;IPOHNV #JPMPHJDBM 1IBSNBDFVUJDBM $P -UE %FNPOTUSBUJPO 1SPKFDU PG *OOPWBUJPO ESJ *OEVTUSJBM $IBJO 6QHSBEF PG .BDSPMJEF
		9JOKJBOH :JMJIPOH #JP /FX .BUFSJBM 5FDIOPMPHZ $P -UE UPOT ZFBS "HSJDVMUVSBM #Z QSPEVDUT %FFQ 1SPDFTTJOH BOE $PNQSFIFOTJWF 6UJMJ[BUJPO 1SPKFDU
		:J :J 9JOH)VB #JPUFDIOPMPHZ $P -UE *OUFHSBUFE 1SPKFDU PG "DUJWF 1IBSNBDFVUJDBM *OHSFEJFOUT BOE 'PSNVMBUJPOT
		4IFOZBOH #PUBJ #JPQIBSNBDFVUJDBM $P -UE 4UFSPJE)PSNPOF 1SPKFDU
		4IBOEPOH +JOOVP 1IBSNBDFVUJDBM $P -UE 4ZOUIFUJD #JPMPHZ *OOPWBUJPO #BTF 1SPKFDU

*OEVTUSZP		3FGFSFODF 1SPKFDUT 1BS
#JPQIBSNB DFVUJDBM		(VBOH[IPV #FPOF #JPQIBSNBDFVUJDBM $P -UE "%$ %4 8PSLTIPQ 1SPKFDU /BOZVBO 1BSL
		#FPOF 4IBOHIBJ 1IBSNBDFVUJDBM 3 % $P -U 4IBOHIBJ *OOPWBUJPO $FOUFS 1SPKFDU
		#JPNFEJDBM 5FDIOPMPHZ 5SBOTGFS BOE 5SBOT $FOUFS (VBOH[IPV $P -UE 1SPKFDU
		$IJBUBJ 5JBORJOH 1IBSNBDFVUJDBM (SPVQ $P FOE $PNQSFIFOTJWF 1SFQBSBUJPO 8PSLTIPQ 1
		-WZF +JBó,BP 1IBSNBDFVUJDBM 4IJKJB[IVBOH $P 3FDPNCJOBOU BOE %SVH 3 % 1SPEVDUJPO #BTF
		'PTVO "OUJHFO $IFOHEV #JPQIBSNBDFVUJDBM $P -UE *OOPWBUJWF 7BDDJOF)FBERVBSUFST BOE *OEVTUSJBL 1SPKFDU
		4IFO[IFO)FQBMJOL 1IBSNBDFVUJDBM (SPVQ $P /FX 1SFQBSBUJPO -JOF 1SPKFDU BU 1JOHTIBO '
		4IBOHIBJ 5PQBMMJBODF #JPTDJFODF &OHJOFFS /FX 1JMPU 1MBOU $POTUSVDUJPO 1SPKFDU BU
		)VCFJ (SBOEQIBSNB :POHTIFOH 1IBSNBDFVUJDB -UE 1SFQBSBUJPO 'BDUPSZ $POTUSVDUJPO 1SI
		(VBOH[IPV *OOPDBSF 1IBSNBDFVUJDBM 5FDIOPM $P -UE $POTUSVDUJPO 1SPKFDU PG "OUJ $BO 1SPEVDUJPO #BTF
		4IJIVJEB 1IBSNBDFVUJDBM (SPVQ +JMJO $P 1SPEVDUJPO 'BDJMJUZ GPS #JPMPHJDT 1SPKFD
		4V[IPV +VXFJ #JPUFDIOPMPHZ $P -UE .JMM ZFBS)VNBO 7BDDJOF 1SPKFDU
		)BOH[IPV %"$ #JPMUFHDZ $P -UEH"UVPE
		+@ ODV 7BOHVBSU 1IBSNBDFVUJDBM $P -UE

5*"/4 .PEFM

*OEVTUSZP		3FGFSFODF 1SPKFDUT 1BS
$IFNJDBM 1IBSNBDFVUJDBMT		4IBOEPOH -VLBOH 1IBSNBDFVUJDBM $P -UE $)VNBO 4ZOUIFUJD "DUJWF 1IBSNBDFVUJDBM *OH 5FDIOPMPHZ 6QHSBEF 1SPKFDU
		;IVIBJ 6OJUFE -BCPSBUPSJFT $P -UE (BPMBO 1SPEVDUJPO #BTF 1SPKFDU
		$IFOHEV .JDSPDIJQ 1IBSNBDFVUJDBM $P -UE *OOPWBUJWF %SVH .BOVGBDUVSJOH #BTF 1SPK
		)VBOHHBOH)VNBOXFMM 1IBSNBDFVUJDBM $P *OEVTUSJBMJ[BUJPO 1SPEVDUJPO #BTF 1SPKFD /FX BOE 4QFDJBM "DUJWF 1IBSNBDFVUJDBM *OH
		+JBOHTV 4JOPQFQ "PTBJOVP #JPQIBSNBDFVUJD $POTUSVDUJPO 1SPKFDU PG 1FQUJEF "DUJWF 1 *OHSFEJFOU 8PSLTIPQ
		'VKJBO (FOPIPQF #JPUFDI $P -UE "1* 1JMPU 1 BOE 1IBSNBDFVUJDBM *OEVTUSJBMJ[BUJPO #BT 1FQUJEF *OEVTUSJBM 1BSL 1SPKFDU
		4JDIVBO %VPSVJ 1IBSNBDFVUJDBM $P -UE)JH 1FQUJEF #JPQIBSNBDFVUJDBM *OEVTUSZ #BTF
		)JTVO 1IBSNBDFVUJDBM)BOH[IPV $P -UE 'V #BTF 1SPKFDU
		5JBOLF +JOH[IPV 1IBSNBDFVUJDBM $P -UE (1IBSNBDFVUJDBM *OEVTUSZ #BTF 1SPKFDU
		1IBSNBSPO 4IBPYJOH 1IBSNBDFVUJDBM $P -U "DUJWF 1IBSNBDFVUJDBM *OHSFEJFOU 1SPKFDU
		#FUUB 1IBSNBDFVUJDBM 4IFOH[IPV $P -UE * %SVH *OEVTUSJBMJ[BUJPO #BTF 1SPKFDU
		)VBEPOH .FEJDJOF 9Jó,BO #PEZHVBSE 1IBSNBD $P -UE $POTUSVDUJPO 1SPKFDU PG /FX #BTF 1IBSNBDFVUJDBM *OHSFEJFOUT BU UIF 1IBSNBD %JWJTJPO

5*"/4 .PEFM

*OEVTUSZP		3FGFSFODF 1SPKFDUT 1BS
'PPE)FBMUI		5JBOKJO .PEFSO *OOPWBUJPO 5SBEJUJPOBM $IJOFT 4DJFODF BOE 5FDIOPMPHZ $P -UE *OOPWBUJPO $F GPS .PEFSO 5SBEJUJPOBM $IJOFTF .FEJDJOF .BOVGE
		&UTPOH 2JOHEBP *OEVTUSJBM $P -UE 'MBW 'SBHSBODF 1SPEVDUJPO -JOF 1SPKFDU
		'PTIBO .BJ %JBO 'PPE $P -UE 5VSOLFZ 1SPKF 'MBWPSJOH BOE 4FBTPOJOH 1SPDFTT
		)VCFJ)PDI 1IBSNBDFVUJDBM $P -UE "OUJ UVNPS 1SFQBSBUJPO BOE 1MBOU &YUSBDUJPO 1SPDFTTJOH
		(VBOHYJ 8F)BOE 1IBSNBDFVUJDBM $P -UE $PO 1SPKFDU GPS *OUFMMJHFOU 5SBEJUJPOBM $IJO 1SPEVDUJPO -JOF
		#BPEJOH 8BZDIFJO 'PPE 5FDIOPMPHZ $P -UE *NQSPWFNFOU 1SPKFDU GPS 4FBTPOJOH .BUFS
		:JDIBOH)VBNBOXFMM 1IBSNBDFVUJDBM $P -UE 0SBM /P 5IJSE 8PSLTIPQ 4ZSVQ *OHSEJFOU 4ZTU
		8FJMPOH %FMJDJPVT (MPCBM)PMEJOHT $P -U 0JM 5VSOLFZ 1SPKFDU
		4JDIVBO $POXFF 'PPE $P -UE #BTF 0JM BOE 8B 3FDPWFSZ BOE 5SFBUNFOU 4ZTUFN 1SPKFDU
		9JBNFO 5PCBDDP *OEVTUSJBM $P -UE 1VSDIBTF PO &RVJQNFOU BOE 4VQQPSUJOH *NQMFNFOUBUJPO 1S

5*"/4 .PEFM

#Z QPTJOH DSJUJDBM RVFTUJPOT UP VODPWFS JOC
FTUBCMJTIJOH TUSVDUVSFE QBUIXBZT UP FOBCMF U
UIF 5*"/4 .PEFM XJMM DPOUJOVF UP FNCPEZ UIJT BEWE
JOEVTUSJBM FWPMVUJPO *U ESJWFT UFDIOPMPHJDBM

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