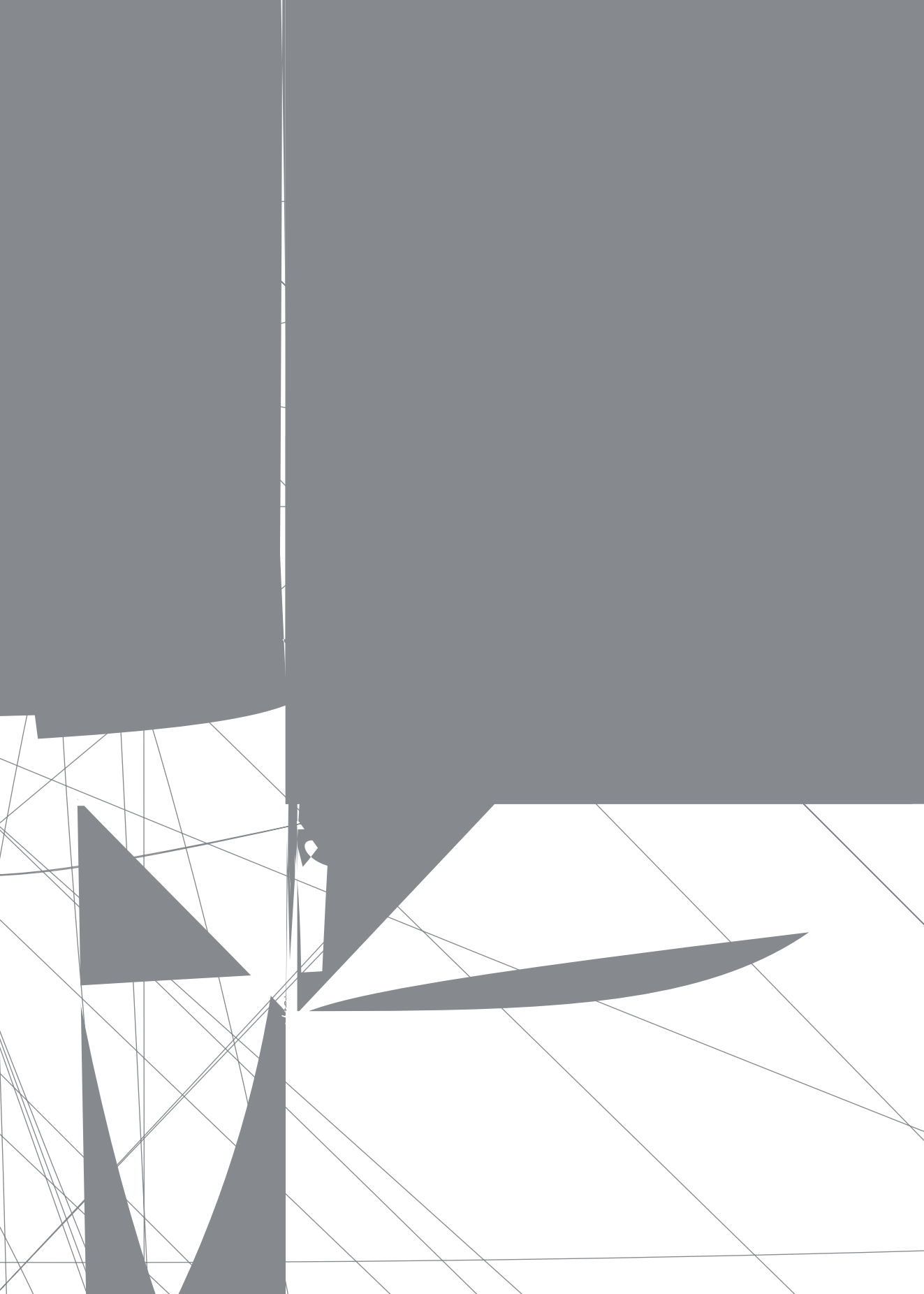




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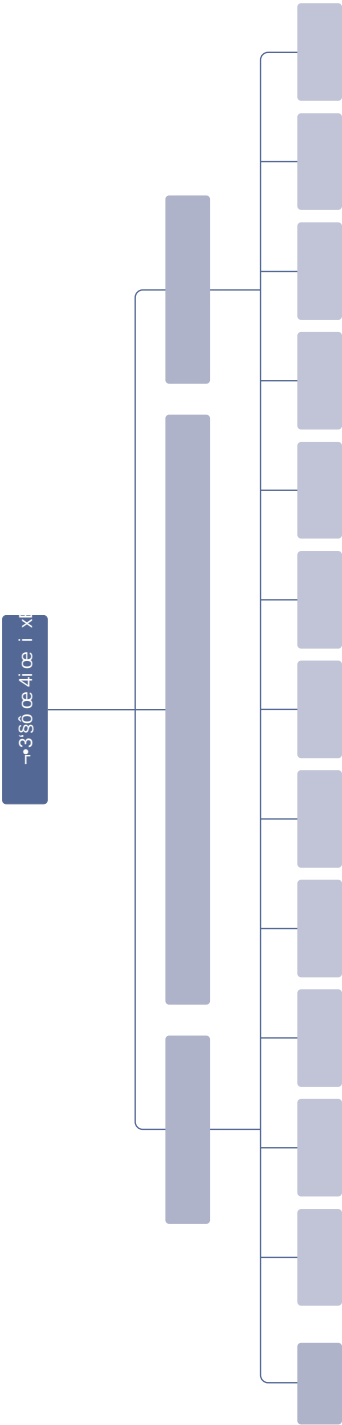
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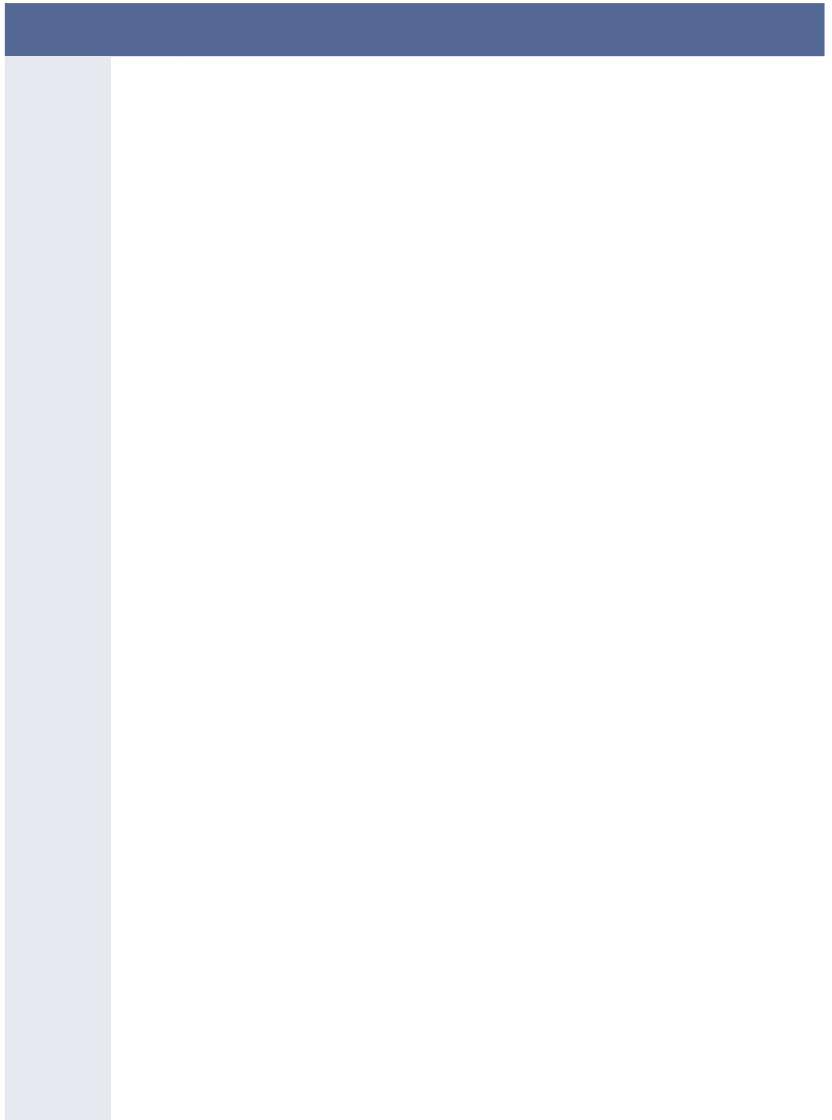
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 >,n,óÕ&f({)±ııPóÖv= &hB0†jJ«RØ%lc:µCê3> =D³Â=Nn,7,F=8:G°ÿÛïs%l
 B0. ¢çn,aj_ ,~f\$ê3™ÑbÕ&H=D³Â=N+ÒB0. óÖn,• æt%/*ÛQ1*j`..^OÚn,
 «ßj,ê3•/Q1t‡<Ôı' %n,z£+.oë«« v

JÔ+f«D°(ê3Lr[ÛPG•l óTSæSPı=j,ê3l'ı>g•à.^ v7Y'úPÓWÛDQ> tzKf
 ~% '•%C >ïsn,*p >‡...DQê3&h±PG³š,~ªè5Ûê3&h& &U©p>g+äCsê34 æ
 f\$& %C.Ô%* u.Ô•; u.ÔQ•n,E0tè%Zê3%l*çİÊPGJ«RØ& %C'is\Ü*•qÛ=<FNn,
 ,‡ªê v

5*"/4 .PEFM

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 JO
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 JOOPWBUJW
QBSBEJHN UIBU FODPNQBTTFT UIF FOUJSF Ó+'SPN -BC UP
ESJWJOH UIF JOEVTUSJBMJ[BUJPO PG OFX UFDIOPMPHJFT M
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 Q
GPS FNQPXFSJOH UIF JOEVTUSJBMJ[BUJPO PG OFX UP

#BTFE PO B QSPDFTT PSJFOUFE FDPTZTU FN BT JUT
JU PQFSBUFT UISPVHI UIF TZOFSHJTUJD DPPQFS
NPEFM PG ó+5SJ QMBUGPSN *OUFHSBUJPO BOE 5SJQM
JOUFHSBUFT UIF UFDIOPMPHZ QMBUGPSN CVTJO
QSPKF DU 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 EJJHUBM BOE

5*"/4 .PEFM

5IF JOEVTUSJBMJ[BUJPO PG OFX UFDIOPMPHJFT DPOGS
DIBMMFOHFT JODMVEJOH JODPNQMFUF QSPDFTT QBDLBHFT
TDBMJOH VQ TIPSUBHFT PG JOUFSEJTDJQMJOBSZ UBMFOUT
UP DPTU F6ßFDUJWFOFTT SFMJBCJMJUZ DPNQMJBODF BOE NB

*ODFOUJWF 1SPKF DU \$PNNBOEFS 2VBMJGJDBUJPO .B
 5IFTF NFBTVSFT IBWF GBDJMJUBUFE UIF JOUFHSBU
 BDSPTT BMM EJTDJQMJOFT GSPN EFTJHO BOE QSPD
 BOE DPOTUSVDUJPO BDIJFWJOH DPNQSFIFOTJWF QSF
 EFWFMPQNFOU 5IJT F&PSU IBT DVMUJWBUFE B DPSF UFBM
 UFDIOPMPHZ BOE NBOBHFNFOU XJUI FYQFSUJTF JO QS
 JOOPWBUJPO BOE JOEVTUSZ BMM [BUJPO UIF HSPVQ CPBT
 1I % IPMEFST BOE TDJFOUJTUT JOEVTUSZ DPOTVM
 FYQFSUT BOE UFDIOJDBM CBDLCPOF QFSTPOOFM 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 1SPDFTT 5FDIOPMPHZ
 (VJEFE CZ UIF QSJODJQMF PG 6+NVMUJ DPSF E
 JOUFHSBUF UPQ MFWFM DSPTT EJTDJQMJOBSZ FYQF

5 * " / 4 . P E F M

1SPDFTT 0SJFOUFE

5*"/4 .PEFM

0QFSBUJPO .PEFM PG 6+5SJ 1MBUGPSN
*OUFHSBUJPO BOE 5SJQMF &OHJOF %

5P TZTUFNBUJDBMMZ UBDLMF UIF GSBHNFOUBUJPO CFUXFFO NBSLF
BOE FYFDVUJPO JO DPOTUSVDUJPO QSPKFDUT XIJDI SFTVMUT JO
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 6+5SJ 1MBUGPSN *OUFHSBUJPO BOE 5SJQMF
NPEFM JT NPEFM EJTSVQUT USBEJUJPOBM MJOFBS XPSLÉaPXT 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

1 0SHBOJD &DPTZTUFN 5SJ 1MBUGPSN *OUFHSBUJPO BOE 5SJQMF
5FDIOPMPHZ 1MBUGPSNÓL5IF &OHJOF PG *OOPWBUJPO BOE 5FDIO
8F TQFDJBMJ[F JO QSPDFTT UFDIOPMPHZ BOE EFTJHO MFWFSBHJC
UFDIOJRVFT BOE FYDFQUJPOBM DSFBUJWF EFTJHO UP TFU IJHI RV

GPS QSPKF DU EFMJWFSZ 8F QSPWJEF DMJFOUT XJUI
JOUFH SBUF BEWBODFE JOOPWBUJPO BOE TUSPOH JNQMFN
5*"/4 DPOTUSVDUT B DPSF DPNQFUFUFODZ GPVO
UIF QSPKF DU MJGFDZDMF CZ JOUFH SBUJ OH 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 7BMJE BUJPO \$FOUFS UIF #JH %BUB \$FOUF

5*"/4 .PEFM

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

1SPKFDU \$PNNBOE 1MBUGPSNóL5IF \$PSOFSTUPOF PG 1S
%FMJWFSZ BOE 1FSGPSNBODF

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

5IF \$MJFOU DFOUSJD 1SPKFUDU \$PNNBOE 4ZTUFN

5IF 5*"/4 QSPKFUDU 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`đFT UT w FBJUFS@`OE★q7`UMAMFMü „UGQ„q“v%“1

[illegible]

5IF &1\$.BOBHFNFOU 1SPDFTT \$FOUFSFE PO 'PVS \$F
.FFUJOHT

(VJEFE CZ UIF PQFSBUJPO NPEFM PG ó+5SJ 1ME
BOE 5SJQMF &OHJOF %SJWFOó+ 5*"/4 IBT BUFSBUJW
NBOBHFNFOU QSPDFTT BDFOUFSFE PO GPVS BDPPSEJ
QSPDFTT Be€@ZTUFNBUJDBMMZ DPOOFDUT Be€ MM Be€ÀFZ
GVM QSPDFTT DPOUSPM B„` OE FGGFDUJWF JNQMFNF
EFDJTJPO NBLJOH BOE SFWJFXT VMUJNBUEFMZ BU
EFMJWFSZ

5*"/4 .PEFM

'PVS \$PPSEJOBUPPO .FFUJOHT

'PVS .FFUJOHT	,FZ \$POUFOUT	1BSUJDJB

%JTUJODUJWF 4ZTUFNT

*O UIF JOEVTUSJBMJ[BUJPO PG OFX UFDIOPMPHJFT
FOUFS UIF NBSLFU BU B DPNQFUJUUJWF QSDJF TFSW
GPS FWBMVBUJOH JUT FDPOPNJD WJBCJMJUZ *OWFT
GSPN B DPNQSFIFOTJWF VOEFSTUBOEJOH PG QSP
TZTUFNBUJD NBOBHFNFOU UISPVHIPVU UIF FOUJS
5IFSFGPSF XF IBWF FOHJOFFSFE B QSPGPVOE USBOTGP
JOWFTUNFOU DPNQFUJUUJWFOFTT BJNJOH UP BDIJFWF U
PG+DPOUSPMMJOH JOWFTUNFOU DPTU CFUUFS UIBO D
QSPKFU JOWFTUNFOUT NPSF FèFèDUJWFMZ 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

5*"/4 .PEFM

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 PQUJNB M JO
*O UIF EFTJHO QIBTF XF FNCFE DPTU EJTDJQMJOE BU UIF TPV
JOUFOTJWF QMBOU MBZPVU QSPDFTT PQUJNJ[BUJPO JOUFMMJH
QSFDJTJPO FRVJQNFOU TFMFDUJPO

-BZPVU 0QUJN5J[~~BRUWH~~IO TZTU FNBUJD QMBOU XJEF PS
XPSLTIPQ MFWFM MBZPVU PQUJNJ[BUJPO XF SFEVDF NBUF
EJTUBODFT CZ BO BWFSBHF PG UP TJHOJéàDBOUMZ SFEV
MPHJTUJDT JOWFTUNFOU DPTU

&éiB d€`P &Q UO H T ,2 JGPI`@UTç1`T0€`X" €J%Jüx0JäJJ`Q\$`T2 U

TFMFDUJPOT GSPN PWFS B UIPVTBOE QSPKFDUT XF QSFD
BOE FRVJQNFOU UP QSPKFDU DBQBDJUZ BOE UFDIOJDBM
PQUJNB M FDPOP NJD BOE QFSGPSNBODF àU GPS NBYJNVN

#Z JNQMFNFOUJOH UIF 6+EFNBOE JOUFHSBUFE QSPDVSNFOU6+
TJTUFNBUIJDBMMZ QMBO QSPKF DU 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 SFEVD FE BU UIF
6+SFBM UJNF EFTJHO DPOTUSVDUJPO GFFECBDL NFDIBOJTN6+ P
CBSSJFST CFUXFFO EFTJHO BOE DPOTUSVDUJPO FTUBCMJTIJOH

TUBHF EFTJHO SFEVDFT FRVJQNFOU JOWFTUNFOUT CZ NP
i t 5IF BQQMJDBUJPO PG #*. BOE NPEVMBS UFDIOP
QSPKF DU TDIFEVMFT CZ Ê BOE SFEVDFT MBCPS DPTU

3%JHJUBM &OHJOF %BUB ESJWFO 1SFDJTJPO *OV
#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%.

1 t *OUFHSBUFE PG 4FQBSBUJPO BOE 8BTIJOH .PEVMFT JO -J
1SPDF#Z 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 BO
XBTUFXBUFS UIF BQQMJDBUJPO PG BEWBODFE P
JOUFHSBUJPO DPODFOUSBUJPO BOE DSZTUBMMJ[BUJPO
UIF NPUIFS MJRVPS BNPVOU UP MFTT UIBO BDIJFWF B
PWFS BOE MPXFS UIF PWFSBMM TZTUEN 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

5*"/4 .PEFM

4BGFUZ JT OPU NFSFMZ BCPVU DPTU CVU JU TFSWFT BT UI
JOWFTUNFOU BOE DPNQFUJUUWFOFTT 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 (NBLJOFNFBUBU) IFMJY EFDJTJPO
NBLJOH NFDIBOJTN UIBU JOUFHSBUFT ó+EBUB FYQFSUJTF
CJEJSFDOUJPOBM 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 DPOUSPMBCMF

*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 QSPKFU 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 1SJODJQMF SWFT BT UIF DPNNPO H
QSJODJQMF GPS BMM EJTDJQMJOFT FODPNQBTTJOH QSP
DPOTUSVDUJPOISG@F5ÁMà\FUJP

*OIFSFOU 4BGFUZ %FTJDE(JGZFMB9FTUIBO POF UI

BOE DPNQMJBODF DFSUJéàDBUJPOT

\$POTUSVDUJPO01TBUF EZOBNJD TVQFSWJTJPO XJUI TQFDJBMJ
DPOUSPM QMBOT EFWFMPQFE GPS IJHI SJTL BDUJWJUJFT

5FDIOPMPHZ \$POéàEFOUJBMJUZ

*OJUJBUJPO 1IBTF \$P DSFBUJOH UIF 3VMFT
\$PMMBCPSBUF XJUI DMJFOU UP FTUBCMJTI B
KPJOUJZ JEFUJGZ DSJUJDBM DPOGJEFUJBMJUZ QPJ
DVTUPN15PKFDU \$POéàEFOUJBMJUZ 8IJUF 1BQFS
&YFDVUJPO 1IBTF %ZOBNJD \$POUSPM
1FSTPOOFM *TPOUJFOU DFMM MFWFM BDDFTT DPOU
UIF ó+NJOJNVN OFDFTTBSZó+ QSJODJQMF \$PSF JOGPSNBU
FRVJQNFOU BOE DPOUSPM TZTUFNT JT EFDPNQPTFE
FOHJOFFST UP BDDFTT POMZ UIF FTTFOUJBM JOGPSN
NPEVMFT
1SPDFTT *TPOUJFOU SFWJFXT BSF DPOEVDUFE JO D
SPPNT "MM ESBGUT BSF TISFEEFE JNNFEJBUFMZ PO TJUF %
QMBDF PWFS QIZTJDBMMZ JTPMBUFE OFUXPSLT BOE BOZ VO
FYQPSU JT QSPIJCJUF
#FIBWJPSBM "\$POUJFOUJBM 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 DPMBCPSBUJPO JT DPOEVDUFE UISPVHI QIZTJD
FODSZQUFE TBOECPY FOWJSPONFOUT 5IJT NFBTVSF FO
VOBVUIPSJ[FE JOGPSNBUJPO BHHSFHBUIPO

\$MPTJOH 1IBTF ;FSP "VEJU

6QPO QSPKF DU DPNQMFUJPO B SJHPSPVT 6+EBUB TBOJUJ[B
JT JNQMFNFOUFE "MM DMBTTJGJFE FMFDUSPOJD EBUB VOEFS
WFSJGJDBUJPO CFGPSF JSSFWFSTJCMF QIZTJDBM FSBTVSF
BSF QVMQFE BOE EFTUSPZFE VOEFS EVBM TVQFSWJTJPO "
\$POGJEFOUJBMJUJZ J'VE~~MCN~~~~8QBSB~~ UP UIF DMJFOU BT UIF GJ
EFMJWFSBCMF BDIJFWJOH B TUSFBNMJOFE DMPTFE MPPQ TFDVSJU

3*OOPWBUJPO 1SBDUJDFT #FZPOE UIF 4UBOEBS
5IF 5*"/4 UFDIOPMPHZ DPOéàEFOUJBMJUJZ TZTUFN JT NPSF SPCV
TFWFSBM GPSXBSE MPPLJOH QSBDUJDFT

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

#MPDLIDIBJO 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 PèßFS JSSFGVUBCMF QSPPG GPS QPUFOUJBM EJTQVU

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

5FDIOPMPHZ \$POéàEFOUJBMJUZ .

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 JNQFDDBCMR
BOE BDIJFWJOH DMJFOU TBUJTGBDUJPO GPS DPOTFDV

*OOPWBUJWF 1SBDUJDFT

\$PNQSFIFOTJWF %JTDJQMJOFT BOE -JGFDZD

5IF DPOTUSVDUJPO QSPKFDUT JO ààFMET PG ààOF DIFNJDBMT CJPQI
BOE FMFDUSPOJD DIFNJDBMT BSF GBDJOH NVMUJQMF DIBMM
IJHI UFDIOJDBM JOUFHSBUJPO UJHIU TDIFEVMFT BOE DPNQMFY
DPPSEJOBUEJPO 5SBEJUEJPOBM EFTJHO JOTUJUVUFT PS DPOTUSVDU
MPOHFS GVMNZ NFFU DMJFOUTó, DPNQSFIFOTJWF SFRVJSFNFOUT C
GPSFTJHIU IPMJTUJD FOHJOFFSJOH TPMVUJPOT BOE HVBSBOUFFE
BEESFTTFT UIFTF SFRVJSFNFOUT UISPVHI JUT BQQSPBDI PG ó+DF
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 &MJNJOBUEF 5FDIOJDBM 4JMPT

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

5IJT TZTUFN OPU POMZ SFTPMWFT UIF JTTVF PG 6+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 WBMJEJBUJPO FRVJQN
BOE FWFO #*. BOE EJHJUBM EJTDJQMJOFT OF JT TUBGGF
UPQ MFWFM FYQFSUT BOE FRVJQQFE XJUI SPCVTU DBC
JOUFHSBUFE JOUFSOBM DPMBCPSBUJPO NFDIBOJTN XF
EJTDJQMJOBSZ TZOFSHZ DPOWFSUJOH GSBHNFOUFE
JOUFHSBUFE QSPKF DU TVQQPSU TZTUFN
"MM QSPGFTTJPOBM UFBNT BSF PSHBOJDBMMZ

5*"/4 .PEFM

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

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

3\$PSF 7BMVF 5IF 4ZOFSHJTUJD "EWBOUBHF PG
5IF DPNCJOBUIJPO PG 6+DPNQSFIFOTJWF EJTDJQMJOFT6+
QSPWJEFT B EFDJTJWF BEWBOUBHF

5SBEJUJPOBM 4VCDPOU	SBDOUJO5*"/4EPEFM
.VMUJQMF *OUFSGBDFT %JéaDYMU \$PPSEJOBUIJPO \$MJFOU NBOBHFT NBOZ TVQOMJFS JOUFSGBDFT MFBEJOH UP IJHI DPNNVOJDBUIJPO DPTUT BOE VODMFBS SFTQPOTJJCJMJUJFT	4JOHMF 3FTQPOTJCMF &OUJUZ 5*"/4 BDUT BT UIF TPMF JOUFSGBDF BTIVNFT GVMM SFTQPOTJJCJMJUZ FOBCMJOH TJNQMF BOE FéaDJFOU DMJF NBOBHFNFOU
5FDIOPMPHZ &BTJMZ %JTDPCFDDOPEPHZ 3 % EFTJHO DPOTUSVDUJPOCFBDBM PQFSBUJPO IBWF JODPOTJTUFISUPVHIPVU PCKFDUJWFT EJMUVJOH UFDUSBDTMBUJPO	'VMMZ *OUFHSBUFE QBSUJDJQBUFT FOTVSJOH QSFDTJF GSPN MBC UP GBC
-PDBM 0QUJNJ[BUJPO 0WF\$POUSPM 1BSUJFT QVSTVF NJOJNVN DFTDITJPO UIFJS PXO TFHNFOUT63FBTJMJZCFBZDMMH UP PWFSBMM CVEHFU BOE TQVBEWMMF PWFSKVOT	SBMM -PTT PG (MPCBM 0QUJNJ[BUJPO NBLJOH CBTFE PO UPUBM DPTU NBYJNJ[JOH JOWFTU
3JTL 5SBOTGFS 1SPCMFNT MFBE UP NVUVBM UIF DMJFOU BT UIF VMUJNB	3JTL *OUFSOBMMJ[BUJPO 5*"/4 SFTPMWFT BMM JOUFS EJTDJQMJO CMBNE XJUI JTIVET JOUESOBMMZ EFMJWFVSJOH DF UP UIF DMJFOU

5*"/4 .PEFM

1JMPU 1MBUGPSN

'SPN MBCPSBUPSZ éáBTLT UP GBDJMJUZ QSPEVDUJPO MJOFT VQ UP
BDIJFWNFOUT 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 HSBF QSPEVDUT XJUI TDB
DBQBCJMJUJFT 5IJT QMBUGPSN TZTUFNBUJDBMMZ CSJEHFT UIF ó+MBT
UFDIOPMPHJDBM GFBTJCJMJUZ BOE DPNNFSDJBM TVDDFTT

1 1MBUGPSN \$BQBCJMJUJFT BOE %BUB 'PVOEBUJPO
)BSEXBSF *OGSBUJPO ~~USJMDUJPO~~ QQFE XJUI NPSF UIBO UZQFT PG
TQFDJBMJ[FE QJMPU TDBMF QSPEVDUJPO MJOFT JODMVEJOH DPOU
UFNQFSBUVSF IJHI QSFTTVSF TZTUFNT EJTUJMMBUJPO QVSJGJDE

*O BEEJUUPO UP QSPWJEJOH WBMJEB
B ó+QJMPU EBUB QBDLBHFó+ EJSFDUMZ BQQMJDBC MF UP
ó+NPEVMBS QSPDFTT QBDLBHFó+ XJUI IJHI SFQMJD BCJMJU

5*"/4 .PEFM

\$PTU 1SFDJTJPO "DDPVOUJOH BOE 0QUJNJ[BUJPO -FWFSB
TDBMF EBUB BO BDDVSBUEF 6+NBUEFSJBM CBMBODF BOE FOFS
NPEFM6+ JT FTUBCMJTIFE GBDJMJUBUJOH QSPEVDUJPO DPTU DB
FSSPS SBUF JO GJOBM NBTT QSPEVDUJPO DPOUSPMMFE XJUIJO
SPCVTU EBUB TVQQPSU GPS JOWFTUNFOU EFDJTJPOT BOE QSPEVD

3FMJBCJMJUZ BOE 5JSPV5FTTUNHMBUJPOH FYUSFNF DPOEJUJPO
BOE DPOEVDUJOH MPOH UFSN PQFSBUJPO DPOUJOVPVT TUBO
BDDFMFSBUFE BHJOH UFTUT XJUI B EVSBUJPO PG 6I IPVST BSF D
FOTVSF UIBU UIF QSPEVDU QFSGPSNBODF BOE UIF TFSWJDF MJGF P
DSJUJDBM DPNQPOFOUT NFFU DPNNFSDJBM SFRVJSFNFOUT .FBO
QSPEVDUJPO GBJMVSF SBUFT BSF SFEVD FE CZ NPSF UIBO

4BGFUZ BOE &OWJSPONFOUBM \$PNQMJBODF 1SF SFWJFX \$
SFBUDUJPO 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 QSPKF DU BQQSPWBM BOE QSPEV

5BMFOU 5SBJOJOH BOE %PDVNFOSBUJPOFOWBQVEBUJPO
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 JNQMFNFOUTUBUJPO PG 6+UFDIOJD
6+UBMFOU USBOTGFS6+

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

5"/4 .PEFM

.PEVMBS 1SPDFTT 6OJUT

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

#Z UIF FOE PG XF IBE TVDDFTTGVMZ EFMJWFS
TUBOEBS 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 DSFBUE UBOHJCMF WBMT #@Đ±"KFD

0 B@@@

pt`

5*"/4 .PEFM

25*"/4 *OUFMMJHFOU *OTUBOUBOFPV4Z\$BONJOVPVT 4UFSJM
%Fæ(OJOH BO *OEVTSZ UISPVHI B %JTUJODU \$BUFHPSZ

DBQJUBMJ[F PO NBSLFU PQQPSUVOJUJFT

1 4FBNMFTT 5FDIOPMPHJDBIMOCQSSDEFT JOOPWBUJP
PDDVS TQFDJGJD NPEVMFT DBO CF JOEFQFOEFOUMZ
XJUIPVU TDSBQQJOH FOUJSF QSPEVDUJPO MJO
JOWFTUNFOUT

1 (SFFO BOE 4VTU5B7ONBCEWFMBS EFTJHO FOBCMF
EJTBTTFNCMZ BOE SFMPDBUJPO UIFSFCZ NBYJNJ[JOH UI
FOUJSF MJGFDZDMF

5*"/4 .PEFM

#* . *NQMFNF OUBUJPO

5ISPVHI FYUFOTJWF BQQMJDBUJPO JO PWFS DPNQMFY QSPKFD
QSPHSFTTFE CFZPOE CBTJD NPEFMJOH UP FTUBCMJTI B DPNQSFIF
DPMMBBCPSBUJPO FDPTZTUFN *U IBT BDIJFWFE B USJQMF MF
SFBMJ[BUJPO M@ SUMMWJCÆP Ñ.P

T,€3

D

#*. *NQMFNFOUBUJPO

GBDJMJUZ BOE JT SJDI JO DSJUJDBM FOHJOFFSJOH EBUB
i t 0QFSBUJPOBM &SQUFCE TJNVMBUJPO BOE EJBH
JNQSPWF JOTQFDUJPO BOE GBVMU SFTPMVUJPO SBUFT CZ
i t \$PTU 4BWJCHWFOUJWF NBJOUFOBODF BOE FOFSH
PQUJNJ[BUJPO DBO SFEVDF MJGF DZDMF PQFSBUJOH DPT

5*"/4 .PEFM

%JHJUBM %FMJWFSZ

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

2) JHI 1SFDJTJPO .PEFMJOH BOE %BUB -JOL
5*"/4 % JHJUBM FOHJOFFST BSF QSPGJDJFOU JO V
JOUFSOBUJPOBM QMBUGPSNT TVDI BT 41 % GF
DPMMBBCPSBUJWF EFTJHO BDSPTT BMM EJTDJQMJO
TQFDJBMUJFT DPOEVDU SFBM UJNF TZODISPOPVT XPSL
TQBDF XJUI EBUB TZODISPOJ[FE JO SFBM UJNF 5IF
EFUFDUJPO GFBUVSF FTUBCMJTIFT B SBQJE 6+EFTJHO
NFDIBOJTN 1SPWFO JO QSBDUJDF UIJT BQQSPBDI SFI
DIBOHFT BOE SFXPSL CZ BO BWFSBHF PG BQQSPYJNBUR
SFEVDJOH QSPKFUDU DPTUT BOE UJNF

3) JHI 1FSGPSNBODF 5FBN)JHI &æ*DJFODZ 0SHBO
'PS FBDI EJHJUBM EFMJWFSZ QSPKFUDU B EFEJDBUFI
FTUBCMJTIFE XIJDI JT MFE CZ B % JHJUBM % FMJWFSZ .
QSPGFTTJPOBM LOPXMFEHF GSPN UIF EFTJHO QSP
*5 TFDUPST 5IF FOUJSF QSPDFTT GSPN QSPKFUDU J
GPSNVMBUJPO UP BDDFQUBODF BOE EFMJWFSZ JT TUSFE
QMBUGPSN "T B SFTVMU UIF PO UJNF QSPKFUDU EFMJWF
UIF DPTU XBTUF DBVTFE CZ JOGPSNBUJPO FSSPST BOE
SFEVDFE CZ UP

5*"/4 .PEFM

4'VMM \$ZDMF 2VBMJUZ \$POUSPM %FMJWFSJOH 5SVTUXPSUIZ
5*"/4 %JHJUBM %FMJWFSZ 5FBN DPOTJTUFOUMZ BEIFSFT UP EB
DPOTJTUFODZ DPNQMFUFOTT BOE DPNQMUBODH BT DPSF QSJODJ
TUSJDU NPEFM UFTUJOH BOE EBUB WFSJGJDBUJPO QSPDFTTFT J
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 EFNPOUSBUFT UIBU TUSJDU RVBMJUZ DPOUSPM SFEVD
DPOÉJDUT JO EFTJHO DPMBCPSBUJPO CZ PWFS OPUBCMZ FOIB
NBLJOH FGGJDJFODZ .FBOXIJMF JU TBWFT NPSF UIBO P
QSFQBSBUJPO UJNF BOE DPTUT GPS BEWBODFE BQQMJDBUJ
NBJOUFODBF BOE JOUFMMJHFOU JOTQFDUJPO BGUFS GBDJMJUZ DPN

5&NQPXFS 'VUVSF 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 BTCEPUBUJMJ[BUJPO
UIF FYJTUJOH NBUFSJBM EBUBCBTF FTUBCMJTI FOUFSQSJTF
&RVJQNFOU %BUBCBTFTó+ BOE ó+5ZQJDBM %FTJHO .PEVMF -JCSB
UIF JOUFHSBUJPO PG EJHJUBMMZ EFMJWFSFE TUBUJD EBUB XJUI S

% JHJUBM %FMJWFSZ

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

&TUBCMJTI B 6OJGJFE %~~EFMJWFSZ~~ED1MBWFGPTSNU
JOUFHSEBUJPO JOUFMMJHFOU TPGUXBSF XJUI NVMUJ TPV
NBOBHFNFOU BOE QSPHSFTT USBDLJOH DSFBUEJOH
VOJGJFE EJHJUBM EFMJWFSZ QMBUGPSN *U OPU PO
NPEFM CSPXTJOH CVU BMTP TVQQPSUT SBQJE EBUB SFUS
SFHJPO MJOLFE EPDVNFOU BDDFTT DPOTUSVDUJPO TJ
GVODUJPOT VMUJNBUEFMZ EFMJWFSJOH B 6+TDBMBCM
GBDJMJUZ DPSF

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

5*"/4 .PEFM

"VUPNBUJPO BOE *OGPSNBUJ[BUJPO

*O JOEVTUSJFT XJUI DPNQMFY DPOUSPM MPHJD BOE IJHI SFHVMBU
BT èàOF 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
EOWP1NQBTTJOH QR E@FT

TDFOBSJPT TVDI BT DIFNJDBM TZOUIFTJT CJPUEFIO
BOE CJPNFJDBM BQQMJDBUJPOT B DPSF DPOUSPM
EFWFMPQFE 5IJT BMMPXT DVTUPNFST UP JOEFQFOEFU
BOE NBOBHF QSPEVDUJPO SFDJQFM

5*"/4 .PEFM

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 EJJHJUBM USBOTGPSN
IJHI DPTUT BOE QSPUSBDUFE DZDMFT B GMFYJCMF FGGJJDJFOU
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 5B#UTZ#EFMJJCHDPSQPSBUFT
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
OVU PG UIF #PY \$PNQMBDESEJ[FE DPNQPOFOUT TVDI BT
FMFDUSPOJD TJHOBUVSFT BOE BVEJU USBJMT SFEVDF WBMJEJBUJPO
FOTVSJOH FéâDJFOU BOE DPNQMJBOW JNQMFNFOUBUJPO
"* QPXFSE 1SPEVDUJPO *OU#FMJOUFOSFUJCH PQFO

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

5"/4 .PEFM

TVDDFTTGVMZ 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 CF
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 TVTUBJOBKMF
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 QV
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 PO
EFMJWFSZ FéâDJFODZ CVU BMTP BDIJFWFE B QBSBEJHN
ESJWFOó+ UP ó+EBUB ESJWFOó+ EFDJTJPO NBLJOH SFE
TUBOEBSSET JO FOHJOFFSJOH TFSWJDFT

1"*(\$ ESJWFO *OUFMMJHFOU %FTJHO 'SPN ö\$PODFQUJPO
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 TPMVUJF
*OTUBOUBOFPVT 'BDBEF 3FOEFSJOH 1PXFSFE CZ P
JOEVTUSJBM BSDIJUFDUVSF TUZMF NPEFM EFTJHOFST PO
QBSBNFUFST BOE TUZMF LFZXPSET BOE UIF "*" DBO H
IJHI RVBMJUZ GDBDEF SFOEFSJOHT JO EJWFSTF TUZMFT

5*"/4 .PEFM

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 WJTJPF
UIJOL JT XIBU ZPV TFFó+

4JUJF -BZPVU 1MBOOJOH #BTFE PO %SUBMMJHFOU %FEVDUJPF
VQPO 5*"/4 FYQFSJFODF GSPN PWFS QSPKFDUT PVS "*" B
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 PQUJNB MZPVUT UP PQUJNB

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 QSFWJPGVT QSPKF
FTUBCMJTIFE BO JOEVTUSZ MFBEJOH ó+1SPDFTT *OUFMMJHFODF #S

1SPDFTT %BUB "DDVNVMBUJPO BOE"/,OPXMFEHF (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 èàOF DIFNJDBM FOHJOFFSJOH TZOUIFUJD CJPMPHZ BO
"TTJTU JO %FDJ TJPO .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 *OEVUSZ *OTJHIUT
5*"/4 JOOPWBUJWFMZ JOUFHSBUFT BOE DPOTUSVDUT I

5*"/4 .PEFM

#Z TFBNMFTTMZ JOUFHSBUJOH TUBUF PG UIF BSU "*" UFD
5*"/46, QSPGPVOE QSPDFTT BDDVNVMBUJPO MJGFDZDMF &1\$
JOEVTUSZ TQFDJGJD JOTJHIUT XF BSF MFBEJOH B OFX FOHJOFF
XIFSF 6+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 QSBDOUJDF 5

5*"/4 .PEFM

PG ó+QPTU FWFOU TVQQMFNFOUBSZ WBMJEBUJPOó+ BOE EFFQMZ JO
XPSL JOUP FWFSZ QIBTF PG QSPKF DU 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 QBSUJDDJQBUFT GSPN UIF QSPKF D
QBSUJDDJQBUJOH 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 BQQSPYJNB
(&1 1IBTF 2VBMJUZ 0SJFOUFE 4UBOEBSEJ[FE *NQMFNFOUB
%VSJOH UIF (PPE &OHJOFFSJOH 1SBDUJDF (&1 QIBTF UIF W
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 WBMJEBUJPO
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 I
BT UIF GPVOEBUJPO GPS UIF GVMM MJGFDZDMF DPNQM
5*"/4 WBMJEBUJPO UFBN #Z JOUFHSBUJOH WFSJGJDBUJ
QIBTF PG QSPKF DU DPOTUSVDUJPO BOE HFOFSBUJOH DP
SFBM UJNF XF TIPSUFO UIF BWFSBHF QSPKF DU DZDMF CZ
TBWJOH DMJFOUTó, UJNF BOE BVEJU DPTUT

5*"/4 .PEFM

6+TZODISPOPVT RVBMJéàDBUJPOó+ % NPEFM

1SPKFDU 1	BTFS\$PSF "DUJWJUJFT %FMJWF\$BCM	
6TFS 3FRVJSFNFOU 634	\$PNNVOJDBUF BOE SFWJFX UIF BQQMJDBCJMJUZ BOE DPNQMJBOF PG 634 DMBVTFT	&OTVSF SFRVJSFNFOU EPDVNFOUT NFFU WBMJEJBUJPO TUBOEBSSET UP BWPJE TVCTFRVFOU EFWJBUJPOT
%FTJHO 1SPDV\$FNFOU	3FWJFX EFTJHO EPD\$RFOU BOE ESBXJOHT QBSERJQNF UFZ FRVJQNFOU TFMF\$DUJPO ""5	WBMJBUJPO RVBMJUZ GSPN UIF JTTVFT BU UIF NBOVGBDUVSJOH QMBOU
\$POTUSVDUJPO *OTUBMMBUJPO	\$POEVDU SFBM UJNF JOTQFDUJPO PG LFOU FMNFOUT DPMF\$DUJPO FRVJQNFOU EBUB BOE SFDPSET	&OTVSF DPOTUSVDUJPO SFRVJBUJPOUSPM BOE SFBM UIF EPNF\$DUJPO QBSERJQNF MBO FWJEFODF DIBJO GPS DPOéàSNBUJPO SFQPSUT
\$PNNJTJTJPOJ 2VBMJéàDBUJPO	-FBE SJTL BTTFTTNF 4"5 *2 02 FUD UP FOJFOUJéàD BOE MPHJDBMMZ SJHPSPVT QSPDFTTFT	%FMJWF\$ B DPNQMFUF BOE OUT %2 DPNQMJBOU WBMJEJBUJPO FOTVSF QBDLBHF FOTVSJOH TNPPUI TZTUEN 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 FTUBCMJTIOH
QMBUGPSN BOE TUBOEBSSEJ[JOH QSPDFTT SF FOHJOFFS.

5*"/4 .PEFM

ESJWFO CZ TUBOEBSJ[FE QSPDFEVSFT BOE EBUB GBDJMJUBUJO
USBOTGPSNBUJPO PG USJBM SVOT GSPN CFJOH ó+SFMJBOU PO FN
UP ó+HVBSBOUFFJOH TZTUFN QFSGPSNBODFó+ &WFO XIFO GBD FE 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 JOUFSWFOUJF
SVO WFSJGJDBUJPO QMBUGPSN JEFUJGJFE 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 TUBOEBSJ
UISPVHIPVU UIF QSPKFDU MJGFDZDMF FOTVSJOH CPUI ó+POF UJNF
SVOó+ BOE ó+MPOH UFSN TUBCMF PQFSBUJPOó+
1SPDFTT 0QUJNJ[BUJPO BOE 'SFSWJBOQCBWFTJHO UIF
FWBMVBUJPO EVSJOH UIF QSPDFTT QBDLBHF SFWJFX BOE)";
QIBTFT QSFTFOUJOH SFDPNNFOEUBUJPOT GPS QSPDFTT TBGFUZ BO
PQUJNJ[BUJPO CBTFE PO BDUVBM PQFSBUJPOBMFEZUB 5ISPVHI UI
.JMFTUPOF 3FWJFXS4BMU5NO GFFECBDL JT JODPSQPSBUFE
NBOEBUPSZ DMPTVSF DSJUFSJPO GPS UIF BOE EFTJHO NPEF
FMJNJOBUIJOH EFTJHO EFGFDUT BU UIF TPVSDF

" TUBOEBSJ[FE DIFDLMJTU TZTU FN J
 SFWJFX 1 *%T FRVJQNFOU MBZPVU ESBXJOHT FUD FOT
 BMJHOT XJUI UIF BDUVBM PQFSBUJPOBM BOE NBJOUFOB
 %PDVNFOU 4JHO PGG "VUTPSQVMBUFTUBMBU DSJUJDBM
 NVTU CF DP TJHOFE CZ UIF USJB SVO WFSJGJDB
 0 . SFRVJSFNFOU JOUP DPOTUSVDUJPO ESBXJOHT
 NPEJéàDBUJPOT

1SPDVSFNFOU BOE \$POTUSMFDUFD001DBTM BHSFFNFO
 TIBMM DMFBSMZ EFéàOF SFRVJSFNFOU GPS PQFSBUJPOB
 UPPMT JODPSQPSBUJOH DPNNJTTJPOJOH BOE PQFSBUJPO
 DMBVTFT JOUP UIF CJEEJOH GSBN#4BOEBSDEPSE JOH
 5FDIOJDBM 4QFD%QSDBMJDPOTUSVDUJPO USF 4UBOEB
 \$PNNJTTJPOJOH 1SPDVFESFUP TVQFSWJTF JOTU
 DPNNJTTJPOJOH FOTVSJOH UIBU UIF QIZTJDBM DPOTUSVD
 EFTJHO JOUFOU

5SJB 3VO &YFDVUJPO 15QES%FMJWFSLZSJB SVO
 5SJB 3VO 0QFSBUJPO &BOEVENPSHMBDZ SFTQPOTF Q
 GPSNVMBUFE %VSJOH USJBMBWCSVQFSBUJPOE .BOVBM
 UIF FYQFSU UFBN DPMMBBCPSBUF UISPVHIPVU UP FOTVS
 TNPPUI QSPHSFTT

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

5*"/4 .PEFM

35ISFF TUBHF 4ZTUFNBUIJD 7BMJEBUIJPO &OTVSFT 3FMJBCMF
5*"/4 JNQMFNFOUT UIF QSPHSFTTJWF QSJODJQMF PG 6+USBOTJ
TUBOEBMPOF UP TZTUFN JOUFHSBUJPO BOE GSPN OP MPBE UP PQFS
B UISFF QIBTF WBMJEBUIJPO QSPDFTT OBNFMZ TJOHMF NBDI
DPPSEJOBUE USJBM SVO BOE NBUFSJBM MPBE USJBM SVO JU
FRVJQNFOU QFSGPSNBODF TZTUFN TZOFSHZ BOE QSPDFTT
4VQQPSUFE CZ TUBOEBSEJ[FE QSPDFEVSFT BOE FYQFSU
UISPVHIPVU UIF QSPKFU BUUBJOT JUT DPSF PCKFDUJWF PG 6+PC
USJBM SVO BOE MPOH UFSN TUBCMF PQFSBUJPO6+ EFMJW
EFMJWFSBCMFT UIBU JT QSPEVDUJPO SFBEZ

00F UJNF 4VDDFTTGVM 5SJBMM

*O FOHJOFFSJOH JOEVTUSZ ó+POF UJNF TVDDFTTGVM U
NFSF QMFEHFT JU SFQSFTFOUT B DPNQSFIFOTJWF BTTF
TZTUFNT PSHBOJ[BUJPOBM DBQBCJMJUJ5"/4OE EFMJV
XBT UIF GJSTU UP TZTUFNBUJDBMMZ JNQMFNFOU UI
JOEVTUSZ BOE DPOUJOVPVTMZ WBMJEBUFT JU UISPVHI M
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
EFMJWFSSóLQSPQFMMJOH UIF JOEVTUSZ GSPN USBEJUJPO
IBOEPWFSó+ UP SFTVMUT ESJWFO ó+FéâDJFOU QSPEVDUJPO
#Z UIF FOE PG 5"/4 IBE TVDDFTTGVMZ DPNQ
TVDDFTTGVM USJBMM SVO JO PWFS QSPKFDUT TQBO
TVDI BT CJPQIBSNBDFVUJDBM éàOF DIFNJDBMT BOE OFX
FWPMWFE JOUP B SFQFBUBCMF WFSJGJBCMF EFMJWFSS
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 JUFSEBUJPO BOE SFGJOFE PWFS UJNF #Z UIF FOE IBEDPOGSPOUFE DIBMMFOHFT BOE EFMJWFSFE WBMVFT JO PWFSFWPMWJOH GSPN BO JOEVTUSZ QBSUJDJQBOU UP B LFZ DIBMMFOHFT USBJMCMB[FS 5IJT KPVSOEZ WJWJEMZ FNCPEJFT UIF QIJMPTPQIZ MFHBDZ JOTQJSJOH JOOPWBUJPO QVSTVJOH QSBDOJDF BOE BTQJOLSPPUFE JO IFSJUBHF GPDVTFE PO JOOPWBUJPO EFEJDBUFE UP ESJWFO CZ BTQJSBUJPOT

8JUIJO UIJT EFWFMPQNFOUBM GSBNFXPSL FBDI QSPKFDU FNCUFTUJéàFT UP UIJT QIJMPTPQIZ



5*"/4 .PEFM

*OEV TUSZP	3FGFSFODF 1SPKF DUT 1BS	
'JOF \$IFNJDBMT		+JOHEF[IFO 'VTIJOF -JGF 5FDIOPMPHZ \$P -UE 7JOZMFC \$BSCPOBUF 7\$ &MFDUSPMZUF "EEJUJWFT 1SPKF DU
		)FOBO 1JOHNFJ 4IFONB &MFDUSPOJD /FX .BUFSJBM \$P -UE 7BOBEJVN -JRVJE 'MPX &OF SHZ 4UPSBHF &RVJQNFOU /FX .FEJVN 1SPKF DU
		4IBOEPOH ,FIBO 4JMJ DPO 4PV SDF /FX .BUFSJBMT \$P -UE &MFDUSPOJD HSB EF 4JMJ DPO \$IFNJDBMT 1SPKF DU
		,JOHCPBSE)FOHZBOH *OEV TUSJBM \$P -UE "OOVBM 1SPEVDUJPO PG 5POT PG \$IMPSJOF \$POUBJOJOH &MFDUSPOJD (SB EF 4QFDJBMUZ (BTFT 1SPKF DU
		5JBOKJO %JT5IF"MM 5FDIOPMPHZ \$P -UE UPO &MFDUSPOJD (SB EF &RVJQNFOU QSPKF DU
		4IBOEPOH (JOOP /FX .BUFSJBM 5FDIOPMPHZ \$P -UE &MFDUSPOJD HSB EF 0SHBOJD #PSBUF &TUFS 1SPKF DU
		+JOHDIV .FNCSBOF .BUFSJBM :BOHRVBO \$P -UE :BOHRVBO 2VBTJ TPMJE 4UBUF .FNCSBOF 1SPKF DU
		+JBOHYJ %FTJ \$IFNJDBM \$P -UE &MFDUSPOJD \$IFNJDBM 1SPKF DU
4ZOUIFUJD #JPM PHZ		*MJ \$IVBOOJOH #JPUFDIOPMPHZ \$P -UE 'FSNFOUBUJPO "DUJWF 1IBSNBDFVUJDBM *OHSFEJFOUT BOE)JHI FOE "DU 1IBSNBDFVUJDBM *OHSFEJFOUT 1SPKF DU
		:JMJ +JBOHOJOH #JPUFDIOPMPHZ \$P -UE (SFFO \$JSDVM &DPOP NZ *OEV TUSJBM 1BSL 1SPKF DU
		2JOIVBOHEBP ")# #JPF OHJOFFSJOH \$P -UE 4NBMM "NJOP "DJE 1SPKF DU
		#BJZBOOVS ")# #JPUFDIOPMPHZ \$P -UE 4NBMM "NJOP "DJE 1SPKF DU
		"OIVJ ")# #JPUFDIOPMPHZ \$P -UE "ESJWFO #JPNBOVG BDUVSJOH 3 % BOE 1JMPU %FNPOTUSBUJPO #BTF 1SPKF DU

*OEV	TUSZP	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 "NJ 1SPKFDU	
		*Oofs .POHPMJB (VBOHEB -JBOGFOH #JPUFDIO -UE /FX \$POTUSVDUJPO PG #JP CBTFE /FX .BUR 1BSNBDFVUJDBM *OUFSNFEJBUFT 1SPKFDU	
		*Oofs .POHPMJB 753 #JPUFDIOPMPHZ \$P -UE FO[ZNF 1SFQBSBUJPO 1SPKFDU	
		\$IJGFOH 1BSNBDFVUJDBM \$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 #JPUFDIO,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	

*OEV	TUSZP	3FGFSFODF 1SPKF	DUT 1BS
4ZOUIFUJD #JPMPHZ		8BOIVB \$IFNJDBM 4JDIVBO \$P -UE 'FSNFOUBUJPO 1SPKF	DU
		)FJMPPOHKJBOH :JIFOH #JPUFDIOPMPHZ \$P -UE "OOVBM 1SPEVDUJPO PG UPO ,FZ 5FDIOPMPHZ /FX &O[ZNF 1SFQBSBUJPO 1SPKF	DU
		'PSUVOF 1IBSNBDFVUJDBM 5BJYJOH \$P -UE /FX 1SPEVDUJPO #BTF 1SPKF	DU
		)FOHUPOH *OOF S .POHPMJB #JPUFDIOPMPHZ \$P -UE 4NBMM 7BSJFUZ "NJOP "DJE *OEV	TUSJBM #BTF 1SPKF
		/BOKJOH #JPUPHFUIFS #JPUFDIOPMPHZ \$P -UE 3FTFBS	DU
		BOE *OEV	TUSJBMJ[BUJPO 1SPKF
		DU PO)JHI &âDJFODZ /VDMFPUJEF #JPTZOUIFTJT 5FDIOPMPHZ	
		\$IBOHEF &DPOP	NJD BOE 5FDIOPMPHJDBM %FWFMPQNFOU ;POF %FWFMPQNFOU BOE \$POTUSVDUJPO #VSFBV 4ZOUIF
		#JPM	PHZ .BOVGBDUVSJOH 1JMPU 5SBOTGPSNBUJPO #BTF 1SPKF
		DU	
		)FOBO .VZVBO "OMJBOH 4ZOUIFUJD #JPUFDIOPMPHZ \$P -UE UPOT ZFBS 4ZOUIFUJD #JPM	PHJDBM 1SPEVDUT 1SPKF
		*OOF S .POHPMJB ;IPOHNV #JPM	PHJDBM 1IBSNBDFVUJDBM \$P -UE %FNPOTUSBUJPO 1SPKF
		DU PG *OOPWBUJPO ESJ *OEV	TUSJBM \$IBJO 6QHSBEF PG .BDSPMJEF
		9JOKJBOH :JMJIPOH #JP /FX .BUFSJBM 5FDIOPMPHZ \$P -UE UPOT ZFBS "HSJDVMUVSBM #Z QSPEVDUT %FFC 1SPDFTTJOH BOE \$PNQSFIFOTJWF 6UJMJ[BUJPO 1SPKF	DU
		:J :J 9JOH)VB #JPUFDIOPMPHZ \$P -UE *OUFHSBUFE 1SPKF	DU PG "DUJWF 1IBSNBDFVUJDBM *OHSFEJFOUT BOE 'PSNVMBUJPOT
		4IFOZBOH #PUBJ #JPQIBSNBDFVUJDBM \$P -UE 4UFSPJE)PSNPOF 1SPKF	DU
		4IBOEPOH +JOOVP 1IBSNBDFVUJDBM \$P -UE 4ZOUIFUJD #JPM	PHZ *OOPWBUJPO #BTF 1SPKF
		DU	

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

*OEV TUSZP	3FGFSFODF 1SPKF DUT 1BS
\$IFNJDBM 1IBSNBDFVUJDBMT	4IBOEPOH -VLBOH 1IBSNBDFVUJDBM \$P -UE \$)VNBO 4ZOUIFUJD "DUJWF 1IBSNBDFVUJDBM *OH 5FDIOPMPHZ 6QHSBEF 1SPKF DU
	;IVIBJ 6OJUFE -BCPSBUPSJFT \$P -UE (BPMBO 1SPEVDUJPO #BTF 1SPKF DU
	\$IFOHEV .JDSPDIJQ 1IBSNBDFVUJDBM \$P -UE *OOPWBUJWF %SVH .BOVGBDUVSJOH #BTF 1SPK
	)VBOHHBOH)VNBOXFMM 1IBSNBDFVUJDBM \$P *OEV TUSJBMJ[BUJPO 1SPEVDUJPO #BTF 1SPKF D /FX BOE 4QFDJBM "DUJWF 1IBSNBDFVUJDBM *OH
	+JBOHTV 4JOPQFQ "PTBJOVP #JPQIBSNBDFVUJD \$POTUSVDUJPO 1SPKF DU PG 1FQUJEF "DUJWF 1 *OHSFEJFOU 8PSLTIPQ
	'VKJBO (FOIPQF #JPUFDI \$P -UE "1* 1JMPU 1 BOE 1IBSNBDFVUJDBM *OEV TUSJBMJ[BUJPO #BT 1FQUJEF *OEV TUSJBM 1BSL 1SPKF DU
	4JDIVBO %VPSVJ 1IBSNBDFVUJDBM \$P -UE)JH 1FQUJEF #JPQIBSNBDFVUJDBM *OEV TUSZ #BTF
	)JTVO 1IBSNBDFVUJDBM)BOH[IPV \$P -UE 'V #BTF 1SPKF DU
	5JBOLF +JOH[IPV 1IBSNBDFVUJDBM \$P -UE (1IBSNBDFVUJDBM *OEV TUSZ #BTF 1SPKF DU
	1IBSNBSPO 4IBPYJOH 1IBSNBDFVUJDBM \$P -U "DUJWF 1IBSNBDFVUJDBM *OHSFEJFOU 1SPKF DU
	#FUUB 1IBSNBDFVUJDBM 4IFOH[IPV \$P -UE * %SVH *OEV TUSJBMJ[BUJPO #BTF 1SPKF DU
	)VBEOH .FEJDJOF 9Jó,BO #PEZHBSE 1IBSNBD \$P -UE \$POTUSVDUJPO 1SPKF DU PG /FX #BTF 1IBSNBDFVUJDBM *OHSFEJFOU BU UIF 1IBSNBD %JWJTJPO

5 * " / 4 . P E F M



*OEV TUSZP	3FGFSFODF 1SPKF DUT 1BS
'PPE)FBMUI	5JBOKJO .PEFSO *OOPWBUJPO 5SBEJUJPOBM \$IJOFT 4DJFODF BOE 5FDIOPMPHZ \$P -UE *OOPWBUJPO \$P GPS .PEFSO 5SBEJUJPOBM \$IJOFTF .FEJDJOJF .BOVGR
	&UTPOH 2JOHEBP *OEV TUSJBM \$P -UE 'MBW 'SBHSBODF 1SPEVDUJPO -JOF 1SPKF D U
	'PTIBO .BJ %JBO 'PPE \$P -UE 5VSOLFZ 1SPKF 'MBWPSJOH BOE 4FBTPOJOH 1SPDFTT
	)VCFJ)PODI 1IBSNBDFVUJDBM \$P -UE "OUJ UVNPS 1SFQBSBUJPO BOE 1MBOU &YUSBDUJPO 1SPDFTTJOH
	(VBOHYJ 8F)BOE 1IBSNBDFVUJDBM \$P -UE \$PO 1SPKF D U GPS *OUFMMJHFOU 5SBEJUJPOBM \$IJC 1SPEVDUJPO -JOF
	#BPEJOH 8BZDIFJO 'PPE 5FDIOPMPHZ \$P -UE *NQSPWFNFOU 1SPKF D U GPS 4FBTPOJOH .BUFS.
	:JDIBOH)VBNBOXFMM 1IBSNBDFVUJDBM \$P -UE OSBM /P 5IJSE 8PSLTIPQ 4ZSVQ *OHSFEJFOU 4ZTU
	8FJMPOH %FMJDJPVT (MPCBM)PMEJOHT \$P -U OJM 5VSOLFZ 1SPKF D U
	4JDIVBO \$POXFF 'PPE \$P -UE #BTF OJM BOE 8B 3FDPWF SZ BOE 5SFBUNFOU 4ZTU FN 1SPKF D U
	9JBNFO 5PCBDDP *OEV TUSJBM \$P -UE 1VSDIBTF PO &RVJQNFOU BOE 4VQQPSUJOH *NQMFNFOUBUJPO 1S

5*"/4 .PEFM

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

