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'VOEBNFOUBM BOE /PO 'VOEBNFOUBM \*OWFTUNFOU 1PMJDJFT%o(FOFSBM

'VOEBNFOUBM \*OWFTUNFOU 1PMJDJFT

%JWFSTJGJDBUJPO

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\$PNNPEJUZ & YDIBOHF "DU 3FHVMBUJPO%o&YDMVTJPO GSPN \$PNNPEJUZ 1P

" 1 1 & / % \* 9 " %o 1 3 0 9 : 7 0 5 \* / ( 1 0 - \* \$ \* & 4  
" 1 1 & / % \* 9 # %o \$ 3 & % \* 5 3 " 5 \* / ( 4



i-FHH .BTPOw NFBOT -FHH .BTPO \*OD  
i.BOBHFSw PS '5'" NFBOT 'SBOLMJO 5FNQMFUPO 'VOE "EWJTFS --\$ GP  
i/"7w NFBOT OFU BTTFU WBMVF  
i/3430Tw NFBOT OBUJPOBMMZ SFDPHOJ[FE PS OPO 6 4 TUBUJTUJDBM S  
\*OWFTUPST 4FSWJDF \*OD i.PPEZ Tw 'JUDI 3BUJOHT BOE 4 1 (MPCBM  
i/:4&w NFBOT UIF /FX :PSL 4UPDL &YDIBOHF  
i1SPTQFDUVTw NFBOT UIF QSPTQFDUVT PG B 'VOE BT SFGFSFODFE PO U  
i4"\*w NFBOT UIJT 4UBUFNFOU PG "EEJUJPOBM \*OGPSNBujPO  
i4&\$w NFBOT UIF 6 4 4FDVSJUJFT BOE &YDIBOHF \$PNNJTTJPO  
i4FSWJDF "HFOUw NFBOT FBDI CBOL CSPLFS EFBMFS JOTVSBODF DPN  
NVUVBM GVOE TVQFSNBSLFU BOE BOZ PUIFS GJOBODJBM JOUFSNFEJBSJ  
TIBSFT PG UIF 'VOE  
4VCBEWJTFS NFBOT \$MFBS#SJEHF \*OWFTUNFOUT --\$ BOE 8FTUFSO "TT  
UP JO UIF 'VOEhT 1SPTQFDUVT BOE UIJT 4"  
i5SVTUw JG BQQMJDBC MF NFBOT UIF USVTU MJTUF PO UIF DPWFS QBI  
i5SVTUFFTw NFBOT UIF USVTUFFT PG UIF 5SVTU

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\* OWFTUNFOU 0CKFDUJWF BOE 4USBUFHJFT

5IF 'VOE JT SFHJTUF SFE VOEFS UIF "DU BT BO PQFO FOE NBOB  
E JTDVTTFT UIF 'VOE T JOWFTUNFOU PCKFDUJWF BOE TUSBUFHJFT 5IF C  
MJNJUBUJPOT PG UIF 'VOE BOE TVQQMFNFOUT UIF EFTDSJQUJPO PG UIF  
JOGPSNBujpo SFHBSEJOH JOWFTUNFOU QSBDUJDFT BOE SJTL GBDUPST  
FOUJUMFE \*OWFTUNFOU 1SBDUJDFT BOE 3JTL 'BDUPST

6OEFS OPSNBM DJSDVNTUBODFT UIF 'VOE JOWFTUT BU MFBTU PG J  
JO FRVJUZ TFDVSJUJFT PS PUIFS JOTUSVNFOU XJUI TJNJMBS FDPOP  
DBQJUBMJ[BUJPOT -BSHF DBQJUBMJ[BUJPO DPNQBOJFT BSF UIPTF DP  
3VTTFMM \*OEFY 4FDVSJUJFT PG DPNQBOJFT XIPTF NBSLFU DBQJUE  
'VOE TUJMM XJMM CF DPOTJEFSFE TFDVSJUJFT PG MBSHF DBQJUBMJ[B  
'VOE T JOWFTUNFOU QPMJDZ NBZ CF DIBOHFE CZ UIF #PBSE XJUIPV  
TIBSFIPMEFST  
5IF 'VOE IBT VOEFSUBLFO UIBU JUT JOWFTUNFOU JO XBSSBOUT PS SJH  
UIF WBMVF PG JUT OFU BTTFUT BOE OPU NPSF UIBO PG TVDI BTTFUT  
UIF /:4&  
5IF 'VOE NBZ JOWFTU VQ UP PG JUT OFU BTTFUT BU UIF UJNF PG J  
EFQPTJUBSZ SFDFJQUT  
5IF 'VOE NBZ EFTJHOBUF OP NPSF UIBO PG UIF 'VOE T OFU BTTFUT

5IF 'VOE NBZ EFTJHOBUF OP NPSF UIBO PG UIF 'VOE T OFU BTTFUT  
DPMMBUFSBM GPS TIPSU TBMFT BU BOZ POF UJNF

4NBMM \$BQ (SPXUI 1PSUGPMJP

\*OWFTUNFOU PCKFDUJWF 5IF 'VOE TFFLT MPOH UFSN HSPXUI PG DBQJ  
6OEFS OPSNBM DJSVDVNTUBODFT UIF 'VOE JOWFTUT BU MFBTU PG J  
DBQJUBMJ[BUJPOT BOE SFMBUFE JOWFTUNFOUT 'PS UIF QVSQPTFT PG  
XJUI NBSLFU DBQJUBMJ[BUJPO WBMVFT OPU FYDFFEJOH J CJMMJPC  
TUPDL JO UIF 3VTTFMM \*OEFY GPS UIF QSFWJPVT NPOUIT XIJDIF  
DBQJUBMJ[BUJPOT OP MPOHFS NFFU UIJT EFGJOJUJPO BGUFS QVSDIBT  
DBQJUBMJ[BUJPO DPNQBOJFT GPS UIF QVSQPTF PG UIF 'VOE T JOWF  
DIBOHFE CZ UIF #PBSE XJUIPVU TIBSFIPMEFS BQQSPWBM VQPO EBZT  
5IF 'VOE NBZ JOWFTU VQ UP PG JUT BTTFUT JO FRVJUZ TFDVSJUJFT  
DPNQBOJFT  
5IF 'VOE NBZ JOWFTU VQ UP PG JUT BTTFUT JO OPO DPOWFSUJCMF  
CFMJFWFT UIBU UIFJS UPUBM SFUVSO QPUFOUJBM FRVBMT PS FYDFFET  
5IF 'VOE NBZ JOWFTU VQ UP PG JUT OFU BTTFUT BU UIF UJNF PG J  
EFQPTJUBSZ SFDFJQUT  
5IF 'VOE NBZ EFTJHOBUF OP NPSF UIBO PG UIF 'VOE T OFU BTTFUT  
DPMMBUFSBM GPS TIPSU TBMFT BU BOZ POF UJNF

'VOEBNFOUBM BOE /PO 'VOEBNFOUBM \*OWFTUNFOU 1PMJDJFT

(FOFSBM

5IF 'VOE IBT BEPQURE UIF GVOEBNFOUBM BOE OPO GVOEBNFOUBM  
TIBSFIPMEFST 'VOEBNFOUBM JOWFTUNFOU QPMJDJFT PG UIF 'VOE NBZ  
OPO GVOEBNFOUBM JOWFTUNFOU QPMJDJFT BU BOZ UJNF XJUIPVU TIBS  
\*G BOZ QFSDFOUBHF SFTUSJDUJPO EFTDSJCCE CFMPX PUIFS UIBO  
JOWFTUNFOU B MBUFS JODSFBDTF PS EFDSFBTF JO UIF QFSDFOUBHF SFT  
DPOTUJUVUF B WJPMBUJPO PG TVDI SFTUSJDUJPO VOMFTT PUIFSXJTF C  
5IF 'VOE T JOWFTUNFOU PCKFDUJWF JT OPO GVOEBNFOUBM

'VOEBNFOUBM \*OWFTUNFOU 1PMJDJFT

5IF 'VOE T GVOEBNFOUBM JOWFTUNFOU QPMJDJFT BSF BT GPMMMPXT  
#PSSPXJOH 5IF 'VOE NBZ OPU CPSSPX NPOFZ FYDFQU BT QFS  
NPEJGJDBUJPOT CZ UIF 4&\$ 4&\$ TUBGG PS PUIFS BVUIPSJUZ XJUI  
QFSNJJTTJPO GSPN UIF 4&\$ 4&\$ TUBGG PS PUIFS BVUIPSJUZ

6OEFSXSJUJOH 5IF 'VOE NBZ OPU FOHBHF JO UIF CVTJOFTT P  
FYDFQU BT QFSNJJUFE CZ J UIF "DU PS JOUFSQSFUBUJPOT PS  
BQQSPQSJBTF KVSJTEJDUJPO PS JJ FYFNQUJWF PS PUIFS SFMJE

-FOEJOH 5IF 'VOE NBZ MFOE NPOFZ PS PUIFS BTTFUT UP UIF  
JOUFSQSFUBUJPOT PS NPEJGJDBUJPOT CZ UIF 4&\$ 4&\$ TUBGG PS  
PS PUIFS SFMJE PS QFSNJJTTJPO GSPN UIF 4&\$ 4&\$ TUBGG PS PU

4FOJPS 4FDVSJUJFT 5IF 'VOE NBZ OPU JTTVF TFOJPS TFDVSJU  
JOUFSQSFUBUJPOT PS NPEJGJDBUJPOT CZ UIF 4&\$ 4&\$ TUBGG PS  
PS PUIFS SFMJE PS QFSNJJTTJPO GSPN UIF 4&\$ 4&\$ TUBGG PS PU

3FBM &TUBUF 5IF 'VOE NBZ OPU QVSDIBTF PS TFMM SFBM FTU  
JOUFSQSFUBUJPOT PS NPEJGJDBUJPOT CZ UIF 4&\$ 4&\$ TUBGG PS  
PS PUIFS SFMJFG PS QFSNJTTJPO GSPN UIF 4&\$ 4&\$ TUBGG PS PU  
\$PNNPEJUJFT 5IF 'VOE NBZ QVSDIBTF PS TFMM DPNNPEJUJFT  
QFSNJUUFE CZ J UIF "DU PS JOUFSQSFUBUJPOT PS NPEJGJDB



GVOE UIBU JOWFTUT B TJHOJGJDBOU QFSDFOUBHF PG JUT UPUBM B  
BEWFSTF FWFOUT BGGFDUJOH UIBU JOEVTUSZ BOE NBZ CF NPSF SJ  
QPMJDZ BCPWF XJMM CF JOUFSQSFUFE UP SFGFS UP DPODFOUSBU  
BMTP XJMM CF JOUFSQSFUFE UP QFSNNU JOWFTUNFOU XJUIPVU MJ  
BHFODJFT PS JOTUSVNFOUBMJUJFT TFDVSJUJFT PG TUBUF UFSSJ  
BHFODJFT JOTUSVNFOUBMJUJFT PS QPMJUJDBM TVCEJWJTJPOT TH  
DPMMBUFSBMJ[FE CZ BOZ TVDI PCMJHBUJPOT "DDPSEJOHMZ JTIV  
NFNCFST PG BOZ JOEVTUSZ 5IFSF BMTP XJMM CF OP MJNJU PO JO  
DPVOUSZ 5IF QPMJDZ BMTP XJMM CF JOUFSQSFUFE UP HJWF CSPB  
BNPOH JOEVTUSJFT

5IF 'VOE T GVOEBNFOUBM QPMJDJFT XJMM CF JOUFSQSFUFE C  
SFGFS UP UIF "DU BOE UIF SFMBUFE SVMFT BT UIFZ BSF JO FGC

\$'5\$ \*O BEEJUJPO UP NFFUJOH POF PG UIF GPSFHPJOH USBEJOH MJNJU  
PUIFSXJTF BT B WFIJDMF GPS USBEJOH JO UIF NBSLFUT GPS \$PNNPEJUZ

\*G UIF 'VOE T PQFSBUPST XFSF UP MPTF UIFJS BCJMJUZ UP DMBJN  
SFRVJSFE UP DPNQMZ XJUI DFSUBJO \$'5\$ SVMFT SFHBSEJOH DPNNPEJUZ  
DPNQMJBODF PCMJHBUJPOT

\*/7&45.&/5 13"\$5\*\$&4 "/% 3\*4, ""\$5034

\*O BEEJUJPO UP UIF JOWFTUNFOU TUSBUFHJFT BOE UIF SJLT EFTI  
\*OWFTUNFOU 0CKFDUJWF BOE 4USBUFHJFT UIF 'VOE NBZ FNQMPZ PUIFS  
BSF EFTDSJCFC E CFMPX 5IF 'VOE NBZ FOHBHF JO UIF QSBDUJDFT EFTDS

MPDBUFE JG UIF CSBODI JT MJDFOTFE JO UIBU TUBUF \*O BEEJUJPO CS  
MJDFOTFE CZ DFSUBJO TUBUFT i4UBUF #SBODIFTw NBZ PS NBZ OPU CF  
B EFTJHOBUFF CBOL XJUIJO UIF TUBUF BOE C NBJOUBJO BTTFUT XJUI  
BHHSFHBUF BNPVOU PG MJBCJMJJUFT PG UIF GPSFJHO CBOL QBZBCMF E  
EFQPTJUT PG 4UBUF #SBODIFT NBZ OPU OFDFTTBSJMZ CF JOTVSFE CZ U  
JOGPSNBUJPO BCPVU B 6 4 CSBODI PG B GPSFJHO CBOL UIBO BCPVU B

7PMBUJMJuZ JO UIF CBOLJOH TZTUFN NBZ JNQBDU UIF WJBCJMJuZ  
GBJMVsf PG BOZ PG UIF GJOBODJBM JOTUJUVUJPOT XIFSF UIF 'VOE NB  
UIF 'VOE XPVME CF BCMF UP BDDFTT VOJOTVSFE GVOET JO B UJNFMZ N  
DPVME BEWFSTFMZ BGGFDU UIF CVTJOFTT MDRVJEJUZ GJOBODJBM QPT

#FODINBSL 3FGFSFODF 3BUFT 3JTL

.BOZ EFCU TFDVSJUJFT EFSJWBUJWFT BOE PUIFS GJOBODJBM JOT  
JOUFSFTU SBUF DBMDVMBUJPOT JODMVEJOH UIF &VSP \*OUFSCBOL 0GG  
0WFSOJHIU 'JOBODJOH 3BUF FBDI B i3FGFSFODF 3BUFw \*OTUSVNFOU  
CBTFE PO TVDI 3FGFSFODF 3BUFT PS NBZ CF TVCKFDU UP JOUFSFTU DB  
PG JOTUSVNFOU JO XIJDI UIF 'VOE JOWFTUT NBZ BMTP PCUBJO GJOB  
FMJNJOBujpo PG B 3FGFSFODF 3BUF PS BOZ PUIFS DIBOHFT UP PS SFG  
IBWF BO BEWFSTF JNQBDU PO UIF NBSLFU GPS PS WBMVF PG BOZ JOT

'PS FYBNQMF TPNF 3FGFSFODF 3BUFT BT XFMM BT PUIFS UZQFT P  
IBWF CFFO UIF TVCKFDU PG POHPJOH OBUJPOBM BOE JOUFSOBujpoBM  
JOEJDFT VTFE BT CFODINBSLT JO GJOBODJBM JOTUSVNFOU BOE GJOB  
#FODINBSLT 3FHVMBUJPO IBT CFFO FOBDUFE JOUP 60JUFE ,JOHEPN MB  
BNFOEFE TVCKFDU UP BNFOENFOU NBEF CZ UIF #FODINBSLT "NFOEN  
4\* BOE PUIFS TUBUVUPSZ JOTUSVNFOU 'PMMPXJJOH UIF JNQMF  
CFODINBSLT IBT DIBOHFE BOE NBZ GVSUIFS DIBOHF JO UIF GVUVSF XJ  
UIBO JO UIF QBTU UIF VTF PG CFODINBSLT UIBU BSF OPU DPNQMJB  
SFTUSJDUFE BOE DFSUBJO CFODINBSLT NBZ CF FMJNJOBUFF FOUJSFMZ  
EJTSVQUJPOT JO MDRVJEJUZ GPS JOTUSVNFOU UIBU SFMZ PO PS BSF J  
DPOTFRVFODFT XIJDI DBOOPU CF QSFEJDUFE

\$PNNFSDJBM 1BQFS

\$PNNFSDJBM QBQFS JODMVEJOH WBSJBCMF BNPVOU NBTUFS EFNB  
VOTFDVSFE QSPNJTTPSZ OPUFT JTTVFE CZ DPSQPSBUJPOT QBSUOFSTI

\$PNNPO 4UPDL

\$PNNPO TUPDLT BSF TIBSFT PG PXOFSTIJQ JO B DPSQPSBUJPO PS  
QSPGJUT PG UIF DPSQPSBUJPO JG BOZ EJTUSJCVUFE BT EJWJEFOET U  
TIBSFIPMEFS PS DMBTT PG TIBSFIPMEFST JODMVEJOH IPMEFST PG UIF  
TUPDL VTVBMMZ DBSSJFT XJUI JU UIF SJHIU UP WPUF BOE GSFRVFOUMZ

\$POWFsuJCMF 4FDVSJUJFT

\$POWFsuJCMF TFDVSJUJFT BSF GJYFE JODPNF TFDVSJUJFT VTVB  
GPS B QSFTDSJCFE BNPVOU PG DPNNPO TUPDL PS PUIFS FRVJUZ TFDVS  
UJNF BU B TQFDJGJFE QSJDF PS GPSNVMB " DPOWFsuJCMF TFDVSJUJFT  
EJWJEFOE QBJE PO QSFGFSSFE TUPDL VOUJM UIF DPOWFsuJCMF TFDVS  
DPOWFSTJPO PS FYDIBOHF DPOWFsuJCMF TFDVSJUJFT PSEJOBSJMZ Q  
DPNNPO TUPDLT PG UIF TBNF PS TJNJ@OWF VD`EFTUSF 'P `ððððDV TJNJ@

TFDVSJUJFT BSF VTVBMMZ TVCPSEJOBUFF UP DPNQBSBCMF OPODPWFSDPSQPSBUJPO T DBQJUBM TUSVDUVSF

5IF WBMVF PG B DPOWFSUJCMF TFDVSJUZ JT HFOFSBMMZ SFMBUFE DPNQBSBCMF NBUVSJUZ BOE RVBMJUZ UIBU EP OPU IBWF B DPOWFSTJP FYDIBOHFE JOUP UIF VOEFSMZJOH DPNNPO TUPDL " DPOWFSUJCMF TFDQSJDF FTUBCMJTIFE JO UIF DPOWFSUJCMF TFDVSJUZ T HPWFSOJOH JOTWBMVF

\$POWFSUJCMF TFDVSJUJFT BSF TVCKFDU UP TUPDL NBSLFU BOE PL JOUFSFTU SBUF BOE PUIFS SJTLT BTPPDJBUFF XJUI GJYFE JODPNF TFD DPOWFSUJCMF TFDVSJUZ GBMMT UIF DPOWFSUJCMF TFDVSJUZ UFOET U "T UIF NBSLFU QSJDF PG TVDI FRVJUZ TFDVSJUZ SJTFT UIF DPOWFSUJC GFBUVSFT \*OWFTUNFOUJO DPOWFSUJCMF TFDVSJUJFT HFOFSBMMZ F

4ZOUIFUJD \$POWFSUJCMF 4FDVSJUJFT

" TZOUIFUJD DPOWFSUJCMF TFDVSJUZ JT DPNQSJTPE PG UXP EJTUDFSUBJO SFTQFDUT 4ZOUIFUJD DPOWFSUJCMF TFDVSJUJFT BSF DSFBURDPNNPO TUPDLT XBSSBOUT PS TUPDL DBMM PQUJPOT 5IF PQUJPOT UIBMJTUFE PO B TFDVSJUJFT FYDIBOHF 5IF UXP DPNQPOFOUJO PG B TZOUIF TBNF FOJUZ HFOFSBMMZ BSF OPU PGGFSFE BT B VOJU BOE NBZ CF Q 'W R@W P@UQ3C@N@IS ETBFJD@V \$OUPJUETU SE ORG@W@S@US@P@M@ DPOWFSUJCMF TFDVSJUJFT J DPOWFSUJCMF TFDVSJUZ IBT B TFQBSBUF NBSLFU WBMVF BOE SFTQPOE



FYUFOU UIF 'VOE IPMET B OFHBUJWFMZ ZJFMEJOH EFCU TFDVSJUZ PS IE  
HFOFSBUF B OFHBUJWF SFUVSO PO UIBU JOWFTUNFOU \$BTI QPTJUJPOT  
'VOEhT CBOL %FCU NBSLFU DPOEJUJPOT BSF IJHIMZ VOQSFEJDUBCMF E  
PS OFHBUJWF JOUFSFTU SBUF FOWJSPONFou TPNF JOWFTUPST NBZ TF  
DBVTF UIF QSJDF PG TVDI IJHIFS ZJFMEJOH JOTUSVNfout UP SJTF DPV  
BOE NBZ MJNNU UIF 'VOEhT BCJMJuZ UP MPDBUF GJYFE JODPNF JOTUSV  
NPOFUBSZ QPMJDZ NBZ FYBDFSCBUF UIF SJTLT BTTPDJBufe XJUI DIBOH  
GPSFJHO DFOUSBM CBOLT IBWF UBLFO TUFQT UP TUBCJMj[F NBSLFUT C  
6 4 HPWFSONFOU CFHBO JNQMFNFouJOH JODSFBTFT UP UIF GFEFSBM G

- 3JTLT PG %FSJWBUIWFT (FOFSBMMZ 5IF VTF PG EFSJWBUIWFT JOWPM  
TVNNBSJ[FE CFMPX BOE NBZ SFTVMU JO MPTTFT UP UIF 'VOE \*O HFC  
NBZ JOWPMWF B TNBMM JOWFTUNFOU PG DBTI SFMBUJWF UP UIF NBH  
JO EFSJWBUIWFT NBZ NBHOJGZ PS PUIFSXJTF JODSFBTF JOWFTUNFOU
- .BSLFU SJTL %FSJWBUIWFT DBO CF DPNQMFY BOE UIFJS TVDDFTT EF  
DPSSFDUMZ GUVVSF NBSLFU PS PUIFS USFOET PS PDDVSSFODFT PS P  
JOTUSVNFOU &WFO JG UIF QPSUGPMJP NBOBHFS T GPSFDBTUT BSF D  
NBSLFUT UIBU SFTVMU JO MPTTFT PS PUIFSXJTF VOTVDDFTTGVM USB  
FTQFDJBMMZ JO BCOPSNBM PS WPMBUJMF NBSLFU DPOEJUJPOT 5IF M  
VOEFSMZJOH JOTUSVNFOU NBZ DIBOHF JO B XBZ UIBU JT BEWFSTF U



\*G UIF 'VOE IBT VTF EFSJWBUJWFT UP IFEHF PS PUIFSXJTF SFEVD  
EJTQPTFT PG UIBU QPTJUJPO BU B UJNF BU XIJDI JU DBOOPU BMTP TFU

DVSSFODJFT UIF WBMVF PG XIJDI UIF QPSUGPMJP NBOBHFS CFMJFWFT DVSSFODZ CFJOH IFEHFE 5IF SJTL UIBU NPWFNFOUT JO UIF QSJDF PG UNPWFNFOUT JO UIF QSJDF PG UIF DVSSFODZ TVCKFDU UP UIF IFEHJOH U

\$VSSFODZ \*OTUSVNFOU 3JTLT \*O BEEJUJPO UP UIF SJTLT GPVOE \$VSSFODZ \*OTUSVNFOU BSF TVCKFDU UP UIF GPMMPXJOH SJTLT

5IF WBMVF PG \$VSSFODZ \*OTUSVNFOU EFQFOET PO UIF WBMVF PG #FDBVTGPSFJHO DVSSFODZ USBOTBDUJPOT PDDVSSJOH JO UIF JOUFS JOWPMWFE JO UIF 'VOE T VTF PG TVDI \$VSSFODZ \*OTUSVNFOU UIF 'VOE HFOFSBMMZ DPOTJTUJOH PG USBOTBDUJPOT PG MFTT UIBO NJMMJPO UIBO GPS SPVOE MPUT 5IFSF JT OP TZTUFNUJD SFQPSUJOH PG MBTU UIBU RVPUBUJPOT BWBJMBCMF UISPVHI EFBMFST PS PUIFS NBSLFU TPV HFOFSBMMZ JT SFQSFTFOUBUJWF PG WFSZ MBSHF USBOTBDUJPOT JO UIF XIFSF SBUFT NJHIU CF MFTT GBWPSBCMF 5IF JOUFSCL NBSLFU JO GBUF 6 4 PQUJPOT PS GUVVSFT NBSLFU BSF DMPTFE XIJMF UIF NBSLFU SBUF NPWFNFOUT NJHIU UBLF QMBDF JO UIF VOEFSMZJOH NBSLFU UIB \*OTUSVNFOU VOUJM UIFZ SFPQFO

4FUUMFNFOU PG IFEHJOH USBOTBDUJPOT JOWPMWJOH GPSFJHO DV JTTVJOH UIF VOEFSMZJOH DVSSFODZ 5IVT UIF 'VOE NJHIU CF SFRVJSF BDDPSEBODF XJUI BOZ 6 4 PS GPSFJHO SFHVMBUJPOT SFHBSEJOH UIF BOE NJHIU CF SFRVJSFE UP QBZ BOZ GFFT UBYFT BOE DIBSHFT BTTPDJ

'PSXBSE \$VSSFODZ \$POUSBDUT

5IF 'VOE NBZ FOUFS JOUP GPSXBSE DVSSFODZ DPOUSBDUT UP QVS EPMMBST PS BOPUIFS DVSSFODZ BU B GUVVSF EBUF BOE BU B QSJDF TF DPOUSBDUT BSF USBEFE EJSFDUMZ CFUXFFO DVSSFODZ USBEFST VTVB

5IF 'VOE NBZ QVSDIBTF B GPSXBSE DVSSFODZ DPOUSBDU UP MPDL GPSFJHO DVSSFODZ UIBU UIF 'VOE JOUFOET UP BDRVJSF B MPOH IFEHFB EPMMBS FRVJWBMFOU PG UIF QSPDFFET GSPN UIF BOUJDQBUFE TBMF P DVSSFODZ B TIPSU IFEHF " iQPTJUJPO IFEHFw JT XIFO UIF 'VOE PXOT BHBJOTU B QPTTJCMF EFDMJOF JO UIF FVSP T WBMVF UIF 'VOE FOUFST EPMMBST " iQPTJUJPO IFEHFw UFOET UP PGGTFU CPUI QPTJUJWF BOE TFDVSJUZ WBMVFT DBVTF CZ PUIFS GBDUPST " iQSPYZ IFEHFw JT XIFO BOE UP QSPUFDU BHBJOTU B QPTTJCMF EFDMJOF JO UIF FVSP T WBMVF FYQFDUFE UP QFSGPSN TJNJMBSMZ UP UIF FVSP JO SFUVSO GPS 6 4 EP PS FGGJDJFODZ CVU HFOFSBMMZ XPVME OPU IFEHF DVSSFODZ FYQPTV EPFT OPU QFSGPSN TJNJMBSMZ UP UIF UBSHFUFE DVSSFODZ 5IF 'VOE D UIF FVSP BOE QSPYZ DVSSFODZ BOE CFUXFFO UIF QSPYZ DVSSFODZ BOE BUUFNQU UP FOIBODF SFUVSO PS ZJFME 5IF 'VOE DPVME VTF GPSXBSE UIBU UIF QPSUGPMJP NBOBHFS CFMJFWFT NJHIU SJTF JO WBMVF SFMBU GMVDUVBUJPOT GSPN POF DVSSFODZ UP BOPUIFS 'PS FYBNQMF JG UIF JO WBMVF SFMBUJWF UP UIF FVSP UIF 'VOE DPVME XSJUF B GPSXBSE D PSEFS UP TFMM UIPTF 6 4 EPMMBST GPS B QSPGJU JG UIF 6 4 EPMMBS 'VOE PG FOHBHJOH JO GPSXBSE DVSSFODZ DPOUSBDUT WBSJFT XJUI GB QFSJPE BOE UIF NBSLFU DPOEJUJPOT UIFO QSFWBJMJOH #FDBVTGPS CBTJT OP GFFT PS DPNNJTTJPOT BSF JOWPMWFE 8IFO UIF 'VOE FOUFST UP NBLF PS UBLF EFMJWFSZ PG UIF VOEFSMZJOH DVSSFODZ BU UIF NBU DPOOFLDUJPO XJUI TFUUMFNFOU 'BJMVSF CZ UIF DPVOUFSQBSUZ UP EP USBOTBDUJPO

5IF QSFDJTF NBUDIJOH PG GPSXBSE DVSSFODZ DPOUSBDU BNPOU CF QPTTJCMF CFDBVTGPS UIB WBMVF PG TVDI TFDVSJUJFT NFBTVSFE JO U



"U UIF JODFQUJPO PG B GVUVSFT DPOUSBDU UIF 'VOE JT SFRVJSFE NFSDIBOU i'\$.w JO BO BNPVOU BU MFBTU FRVBM UP UIF BNPVOU EFTJH XIFO XSJUJJOH B DBMM PS QVU PQUJPO PO B GVUVSFT DPOUSBDU JO BD USBOTBDUJPOT JOJUJBM NBSHJO PO GVUVSFT DPOUSBDUT EPFT OPU S PS HPPE GBJUI EFQPTJU UIBU JT SFRVJSFE UP CF SFUVSOFE UP UIF 'VO IBWF CFFO TBUJTGJFE 6OEFS DFSUBJO DJSDVNTUBODFT TVDI BT QFSJ CZ JUT '\$. UP JODSFBTM UIF MFWFM PG JUT JOJUJBM NBSHJO QBZNFOU GVUVSF CZ SFHVMBUPSZ BDUJPO

\*O BEEJUJPO UP JOJUJBM NBSHJO QBZNFOU EVSJJOH UIF MJGF PG GSPN UIF '\$. BT UIF WBMVF PG UIF NBSHJO BOE UIF VOEFSMZJOH EFSJW NBSLFU w 7BSJBUJPO NBSHJO JT JOUFOEFE UP SFQSFTFOU B EBJMZ TFU QVSDIBTFT BO PQUJPO PO B GVUVSFT DPOUSBDU UIF QSFNJVN QBJE QM DJSDVNTUBODFT XIFO UIF QVSDIBTF PG BO PQUJPO PO B GVUVSFT DPOU DPOUSBDU XPVME OPU TVDI BT XIFO UIFSF JT OP NPWFNFOUT JO UIF WB UIF 'VOE XPVME MPTF UIF QSFNJVN JU QBJE GPS UIF PQUJPO QMVT USB GVUVSFT DPOUSBDU PS XSJUFT B DBMM PS QVU PQUJPO UIFSFPO JU JT FWFOU PG BEWFSTF QSJDF NPWFNFOUT \*G UIF 'VOE IBT JOTVGGJDJFOU TFMM TFDVSJUJFT BU B UJNF XIFO TVDI TBMFT BSF EJTBEWBOUBHFPVT

"MUIPVHI TPNF GVUVSFT BOE PQUJPOT PO GVUVSFT DBMM GPS NBL HFOFSBMMZ UIPTF DPOUSBDUT BSF DMPTFE PVU QSJPS UP EFMJWFSZ CJOWPMWJOH UIF TBNF JOTUSVNFOU PS BTTFU BOE EFMJWFSZ NPOUI \* UIF 'VOE SFBMJ[FT B HBJO PS JG JU JT NPSF UIF 'VOE SFBMJ[FT B MPT QSJDF UIF 'VOE SFBMJ[FT B HBJO PS JG JU JT MFTT UIF 'VOE SFBMJ[FT XIJDI XJMM CF JODMVEFE JO UIFTF DBMDVMBUJPOT 1PTJUJPOT JO GVU CPBSE PG USBEF UIBU QSPWJEFT B TFDPOEBSZ NBSLFU )PXFWFS UIFS GPS B QBSUJDVMBS DPOUSBDU BU B QBSUJDVMBS UJNF \*O TVDI FWFOU

6OEFS DFSUBJO DJSDVNTUBODFT GVUVSFT FYDIBOHFT NBZ FTUBCM DPOUSBDU PS BO PQUJPO PO B GVUVSFT DPOUSBDU DBO WBS JN JNN UIF JOO DJT DPG E FYPF PQUO P€ P @ ð@`0` `0 @ Pð 0à p@à`` p P•`ð ð

1PTJUJPOT JO GVUVSFT DPOUSBDUT BOE SFMBUFE PQUJPOT NBZ C  
QSPWJEFT B NBSLFU GPS TVDI DPOUSBDUT "MUIPVHI UIF 'VOE JOUFOET  
FYDIBOHFT PS CPBSET PG USBEF XIFSF UIFSF BQQFBST UP CF B MJRVJE  
BOZ QBSUJDVMBS DPOUSBDU BU BOZ QBSUJDVMBS UJNF \*O TVDI FWFOU  
BEWFSTF QSJDF NPWFNFOUT UIF 'VOE XPVME DPOUJOVF UP CF SFRVJSI  
IBWF B MJNJUFE MJGF BOE UIVT DBO CF EJTQPTFE PG POMZ XJUIJO B T

1VSDIBTFST PG PQUJPOT PO GVUVSFT DPOUSBDUT QBZ B QSFNJVN  
BEWFSTF QSJDF NPWFNFOUT DPVME CF MPTU 4FMMFST PG PQUJPOT PC  
BEEJUJPOBM NBSHJO DBMMT UIBU DPVME CF TVCTUBOUJBM JO UIF FWFO  
SFRVJSFE GVUVSFT USBEJOH JOWPMWFT B IJHI EFHSFF PG MFWFSBHF  
NBZ SFTVMU JO JNNFEJBHF BOE TVCTUBOUJBM MPTT PS HBJO UP UIF '  
SFTVMU JO B IJHIFS QPSUGPMJP UVSOPWFS SBUF TFF i1PSUGPMJP 5SB  
PG BEEFE CSPLFSBHF DPNNJTTJPOT

"T OPUFE BCPWF FYDIBOHFT NBZ JNQPTF MJNJUT PO UIF BNPVOU C  
JT QFSNJUUFE UP DIBOHF JO B TJOHMF EBZ \*G UIF QSJDF PG B DPOUSE  
VOBCMF EVSJJOH UIBU UJNF UP DMPTF JUT QPTJUJPO JO UIBU DPOUSBDU  
\$'5\$ BOE EPNFTUJD FYDIBOHFT IBWF BMTP FTUBCMJTIFFE BOE DPOUJOV  
NBYJNVN TQFDVMBUJWF QPTJUJPO UIBU BOZ QFSTPO PS HSPVQ PG QFS

&YDIBOHF USBEFE PQUJPOT JO UIF 6OJUFE 4UBUFT BSF JTTVFE CZ  
XIJDI UIF PQUJPO JT MJTUF BOE BSF TUBOEBSEJ[FE XJUI SFTQFDU UP  
QSJDF \*O DPOUSBTU 05\$ PQUJPOT PQUJPOT OPU USBEFE PO FYDIBOH  
TFDVSJUJFT EFBMFS PS B CBOL XJUI OP DMFBSJOH PSHBOJ[BUJPO HV  
OFHPUJBujpo XJUI UIF PUIFS QBSUZ UP UIF PQUJPO DPOUSBDU UIF DP

UIF 'VOE XJMM CF SFRVJSFE UP QBZ UIF EJGGFSFODF CFUXFFO UIF DMPP  
BQQMJDBCMFBQNMUJQMJSF UP UIF BTTJHOFE XSJUFS

5JNJOH 3JTL 5IF IPVST PG USBEJOH GPS PQUJPOT NBZ OPU DPOGPF  
USBEFE 5P UIF FYUFQOU UIBU UIF PQUJPOT NBSLFUT DMPTF CFGPSF UIF  
NPWFNFOUT DBO UBLF QMBDF JO UIF VOEFSMZJOH NBSLFUT UIBU DBOOF  
NBSLFU EBJMZ BOE UIFJS WBMVF XJMM CF BGGFDUFE CZ DIBOHFT JO UI  
PG UIF VOEFSMZJOH TFDVSJUJFT BO JODSFBTF JO JOUFSFTU SBUFT DI  
VOEFSMZJOH JOTUSVNFOU BOE UIF SFNBJOJOH UJNF UP UIF PQUJPOT F  
BEKVTFUE EPXOXBSE CFGPSF UIF PQUJPO T FYQJSBUJPO BT B SFTVMU F



GBWPSBCMF UP UIF 'VOE UIBO UZQJDBM 05\$ TXBQ EPDVNFOUBUJPO 'PS  
JOEFNOJUZ CZ UIF 'VOE JO GBWPS PG UIF DMFBSJOH NFNCFS JOEFNOJ  
XJUI BDUJOH BT UIF 'VOE T DMFBSJOH NFNCFS BOE UIF EPDVNFOUBUJPO  
SFNFEJFT JG UIF DMFBSJOH NFNCFS EFGBVMUT PS CFDPNFT JOTPMWF

4PNF UZQFT PG DMFBSFE TXBQT BSF SFRVJSFE UP CF FYFDVUFE PC  
4&' JT B USBEJOH QMBUGPSN XIFSF NVMUJQMF NBSLFU QBSUJDJQBOUT  
PUIFS QBSUJDJQBOUT JO UIF QMBUGPSN 8IJMF UIJT FYFDVUJPO SFRVJ  
DMFBSFE TXBQ NBSLFU USBEJOH PO B 4&' DBO DSFBUF BEEJUJPOBM DF  
GFFT BOE JG UIF 'VOE FYFDVUFT TXBQT PO B 4&' UISPVHI B CSPLFS JO  
UIF 'VOE NBZ JOEFNOJGZ B 4&' PS B CSPLFS JOUFSNFEJBSZ XIP FYFDV  
MPTTFT PS DPTUT UIBU NBZ CF JODVSSFE BT B SFTVMU PG UIF 'VOE T U

5IF 'VOE NBZ FOUFS JOUP TXBQ USBOTBDUJPOT XJUI DFSUBJO DPV  
NBTUFS OFUUJOH BHSFFNFOU QSPWJEFT UIBU BMM TXBQT FOUFSFE JOU  
QBSUT PG BO JOUFHSBM BHSFFNFOU \*G BNPVOUT BSF QBZBCMF PO B Q  
TXBQ USBOTBDUJPOT UIF BNPVOU QBZBCMF TIBMM CF UIF OFU BNPVOU  
QBSUZ PS JUT BGGJMJBUFF EFGBVMUT HFOFSBMMZ PS PO BOZ TXBQ U  
"T B SFTVMU UP UIF FYUFNU UIF 'VOE FOUFST JOUP NBTUFS OFUUJOH E  
UFSNJOBUF B HSFBUFS OVNCFS PG TXBQ BHSFFNFOUT UIBO JG JU IBE O  
UIF 'VOE

H F\* ØLSF SOFTW KB SBFØÆX BQTT X\$BQTT EØ & ' FMPP PPS Ø Ó • Ø O@ F`SØFT WOSØB Ø'F@PX ØQTTxØ  
SBUF QBZNFOU PCMJHBUJPOT P ` • @ ` p `` Ø P Ø

Q B S TM™ „p P • ` p ` Ø P Ø

5IF 'VOE NBZ BMTP QVSDIBTF DSFEJU EFGBVMU TXBQ DPOUSBDUT U  
TFDVSJUJFT IFME JO JUT QPSUGPMJP JO XIJDI DBTF UIF 'VOE XPVME G  
5IJT XPVME JOWPMWF UIF SJTL UIBU UIF JOWFTUNFOU NBZ FYQJSF XPS  
EFGBVMU CZ UIF JTTVFS PG UIF VOEFSMZJOH PCMJHBUJPO PS BT BQQ  
\*U XPVME BMTP JOWPMWF DSFEJU SJTL%oUIBU UIF TFMMFS NBZ GBJM UP

5IF 'VOE NBZ JOWFTU JO DSFEJU EFGBVMU TXBQ JOEFY QSPEVDUT  
'VOE DBO FJUIFS CVZ UIF JOEFY UBLF PO DSFEJU FYQPTVSF PS TFMM  
JOWFTUNFOU BSF TVCKFDU UP UIF BTPPDJBULE SJTLT XJUI JOWFTUNFO

%JTUSFTTFe %FCU 4FDVSJUJFT

%JTUSFTTFe EFCU TFDVSJUJFT BSF EFCU TFDVSJUJFT UIBU BSF QV  
CBOLSVQUZ QSPDFFEJOHT PS PUIFSXJTF JO EFGBVMU BT UP UIF SFQBZ  
'VOE PS BSF SBUFE JO UIF MPXFS SBUJOH DBUFHPSJFT \$B PS MPXFS C  
KVEHNFou PG UIF QPSUGPMJP NBOBHFS PG FRVJWBMFOU RVBMJUZ \*OW  
TJHOJGJDBOU SJTL 5IF SJTLT BTPPDJBULE XJUI IJHI ZJFME TFDVSJUJFT

5IF 'VOE NBZ NBLF TVDI JOWFTUNFOU XIFO UIF QPSUGPMJP NBOBH  
EJTUSFTTFe EFCU TFDVSJUJFT XJMM NBLF BO FYDIBOHF PGGFS PS XJMM

UIF BNPVOU JU JOWFTUFE JO UIF &5' \$FSUBJO &5'T BSF BDUJWFMZ NBC  
JOWFTUNFOU EFDJTJPOT PO 60EFSMZJOH "TTFUT XJUIPVU TFFLJOH UP  
PS BTTFU DMBTT

60MJLF TIBSFT PG UZQJDPM PQFO FOE NBOBHFNFU JOWFTUNFOU  
EFTJHOFE UP CF USBEFE UISPVHIPVU UIF USBEJOH EBZ BOE CPVHIU BO  
DBO USBEF BU FJUIFS B QSFNJVN PS EJTDPOU UP OFU BTTFU WBMVF  
USBEJOH EBZ BOE BO BQQSPYJNBUPG BDUVBM OFU BTTFU WBMVF  
PS MPTF WBMVF EFQFOEJOH PO UIF QFSGPSNBODF PG UIF 60EFSMZJOH  
NBZ JOWFTU JO &5'T UIBU EP OPU IBWF UIJT TBNF MFWFM PG USBOTQBS  
EJTDPOU PS QSFNJVN UP BDUVBM OFU BTTFU WBMVF

(BJOT PS MPTTFT PO UIF 'VOE T JOWFTUNFOU JO &5'T XJMM VMUJN  
BDUJWF USBEJOH NBSLFU GPS BO &5' T TIBSFT NBZ OPU EFWFMPQ PS C  
MJTUJOH FYDIBOHF T PGGJDJBMT EFFN TVDI BDUJPO BQQSPQSJBUF  
XJEF iDJSVDVJU CSFBLFSTw XIJDI BSF UJFE UP MBSHF EFDSFBTFT JO TU  
&5' XJMM CF SFEVDDE CZ USBOTBDUJPO BOE PUIFS FYQFOTFT JODMVEJ  
FMJHJCJMF UP SFDFJWF UIFJS QPSUJPO PG JODPNF JG BOZ BDDVNVMBU  
UIF &5'

"O JOWFTUNFOU JO BO &5' JOWPMWFT SJTLT TJNJMBS UP JOWFTUJ  
WBMVF PG UIF 60EFSMZJOH "TTFUT NBZ GMVDUVBUF JO BDDPSEBODF X  
TFDVSJUJFT BOE PUIFS GJOBODJBM JOTUSVNFOU HFOFSBMMZ BOE PU

\*G BO &5' JT B SFHJTUFSFE JOWFTUNFOU DPNQBOZ BT EFGJOFE JC  
BCJMJUZ UP QVSDIBTF TFDVSJUJFT JTTVFE CZ PUIFS JOWFTUNFOU DPN  
FYFNQUJWF SFMJFG )PXFWFS VOEFS 3VMF E UIF 'VOE NBZ JOWFTU  
UIFTF MJNJUT TVCKFDU UP DFSUBJO DPOEJUJPOT 5IFTF SFTUSJDUJPO  
4PNF &5'T BSF OPU TUSVDUVSFE BT JOWFTUNFOU DPNQBOJFT BOE UIVT

'PSFJHO 4FDVSJUJFT

5IF SJTLT PG JOWFTUJAH JO TFDVSJUJFT PG OPO 6 4 JTTVFST PS JT  
SFMBUFE BNPOH PUIFS UIJOHT UP J EJGGFSFODFT JO TJ[F MJRVJEJU  
TFDVSJUJFT NBSLFUT PG DFSUBJO OPO 6 4 NBSLFUT DPNQBSFE UP UIF  
GBDUPST BOE JJJ GPSFJHO FYDIBOHF NBUUFST TVDI BT SFTUSJDUJ  
CFUXFFO UIF 6 4 EPMMBS BOE UIF DVSSFODJFT JO XIJDI UIF 'VOE T QP  
SFHVMBUJPOT BOE DPTUT BTPDJBUE XJUI DVSSFODZ FYDIBOHF 5IF Q  
QBSUJDVMBSMZ FNFSHJOH NBSLFUT BSF FYQFDUFE UP VOEFSHP TJHOJ  
UIF TPDJBM QPMJUJDBM BOE FDPOPND TUBCJMJUZ DIBSBDUFSJUJD P

60BOUJDQBUFE QPMJUJDBM PS TPDJBM EFWFMPQNFOUT NBZ BGGFD  
FDPOPNDT BOE TFDVSJUJFT BOE DVSSFODZ NBSLFUT PG NBOZ FNFSHJO  
5IFS DBO CF OP BTTVSBDFT UIBU UIFTF FDPOPND BOE NBSLFU EJTSV

-FHBM SFNFEJFT BWBJMBCMF UP JOWFTUPST JO DFSUBJO GPSFJHO D  
JO UIF 6 4 PS PUIFS GPSFJHO DPVOUSJFT "DDPVOUJAH TUBOEBSET JO  
4UBUFT \*G UIF BDDPVOUJAH TUBOEBSET JO BOPUIFS DPVOUSZ EP OPU  
IBSEFS GPS UIF QPSUGPMJP NBOBHS UP DPNQMFUFMZ BOE BDDVSBUF  
(PWFSQNFU IBT GSPN UJNF UP UJNF JO UIF QBTU JNQPTFE SFTUSJDUJ  
6 4 JOWFTUPST TVDI BT UIF 'VOE "MTP CSPLFSBHF DPNNJTTJPOT BOE  
GPSFJHO DPVOUSJFT UIBO UIFZ BSF JO UIF 6 4 5IJT SFEVDFT UIF BNPV

5IF 'VOE HFOFSBMMZ IPMET JUT GPSFJHO TFDVSJUJFT BOE DBTI JO  
BOE TFDVSJUJFT EFQPTJUPSJFT NBZ CF SFDFOUZ PSHBOJ[FE PS OFX U  
OP SFHVMBUFSZ PWFSQNFU IBT GSPN UJNF UP UJNF JO UIF QBTU JNQPTFE  
"MTP UIF MBXT P



TFDVSJUJFT IFME CZ PS UP CF USBOTGFSSFE UP UIF 'VOE 'VSUIFSNPSF  
JOBEFRVBUF UP NFFU UIF 'VOE T DMBJNT JO BOZ PG UIFTF FWFOU

\*OGMBUJPO BOE SBQJE GMVDUVBUJPOT JO JOGMBUJPO SBUFT IBWF  
FDPOPNJFT BOE TFDVSJUJFT NBSLFUT PG DFSUBJO FNFSHJOH NBSLFUT  
OVNCFS PG DPSSFDUJWF NFDIBOJTNT UP SFEVDF JOGMBUJPO PS NJUJHI  
CPUI PO FNFSHJOH NBSLFU FDPOPNJFT BOE UIFJS TFDVSJUJFT NBSLFUT  
DPVOUSJFT IBWF FYQFSJFODFE TUFBEZ EFWBMVBUJPOT SFMBUJWF UP U  
DPVOUSJFT &DPOPNJFT JO FNFSHJOH NBSLFUT HFOFSBMMZ BSF IFBWJ  
BOE NBZ DPOUJOVF UP CF BGGFDUFE BEWFSTFMZ CZ FDPOPND DPOEJU  
SFMBUJWF DVSSFODZ WBMVFT BOE PUIFS QSPUDUJPOJTU NFBTVSFT JN

#FDBVTF PG UIF IJHI MFWFMT PG GPSFJHO EFOPNJOBUFF EFCU PXF  
FYDIBOHF SBUFT DBO TJHOJGJDBOUMZ BGGFDU UIF EFCU TFSWJDF PCMJ  
SBUFT QSPGJU NBSHJOT BOE FYQPSUT XIJDI BSF B NBKPS TPVSDF PG

5P UIF FYUFOU BO FNFSHJOH NBSLFU DPVOUSZ GBDFT B MJRVJEJU  
JODSFBTF SFTUSJDUPOT PO UIF PVUGMPX PG BOZ GPSFJHO FYDIBOHF

BQQSPQSJBUF DJSDVNTUBODFT XBSSBOU JU NBZ BQQMZ UP UIF 4&\$ GP  
4FDUJPO F PG UIF "DU %VSJJOH UIF QFSJPE DPNNFODJOH GSPN U  
4&\$ BDUJPO UIF QPSUGPMJP TFDVSJUJFT JO UIF BGGFDUFE NBSLFUT X.  
BDDPSEBODF XJUI UIF 'VOE T WBMVBUJPO QPMJDZ

"MUIPVHI JU NJHIU CF UIFPSFUJDBMMZ QPTTJCMF UP IFEHF GPS BO  
OBUVSF PG UIF SJTLT BTPPDJBULE XJUI FNFSHJOH NBSLFU JOWFTUJOH  
EJGGJDVMU UP IFEHF FGGFDUJWFMZ BHBJOTU TVDI SJTLT

&VSPQF — 3FDFOU &WFOUT

" OVNCFS PG DPVOUSJFT JO &VSPQF IBWF FYQFSJFODFE TFWFSF F  
JTTVFST BOE FWFO DFSUBJO HPWFSONFOU IBWF EFGBVMUFE PO PS  
GBDFE EJGGJDVMUJFT PCUBJOJOH DSFEJU PS SFGJOBODJOH FYJTUJOH  
HPWFSONFOU PS DFOUSBM CBOL TVQQPSU IBWF OFFEFE UP SBJTF DBQ  
GJOBODJBM NBSLFUT JO &VSPQF BOE FMTFXIFSF IBWF FYQFSJFODFE FY  
EJGGJDVMUJFT NBZ DPOUJOVF XPSTFO PS TQSFBE XJUIJO BOE PVUTJE  
HPWFSONFOU DFOUSBM CBOLT BOE PUIFST JODMVEJJOH BVTUFSJUZ N  
NBZ MJNNU GVUVSF HSPXUI BOE FDPOPND SFDPWFSZ PS IBWF PUIFS V  
HPWFSONFOU BOE PUIFST PG UIFJS EFCU DPVME IBWF BEEJUJPOBM BE  
BSPVOE UIF XPSME

\*O BEEJUJPO UIF 6OJUFE ,JOHEPN MFGU UIF &VSPQFB0 6OJPO PO  
'PMMPXJJOH B USBOTJUJPO QFSJPE UIF 6OJUFE ,JOHEPN T QPTU #SFYJU  
%FDFNCFS XBT QSPWJTJPOBMMZ BQQMJFE FGGFDUJWF +BOVBSZ  
TJHOJGJDBOU NBSLFU VODFSUBJOUZ SFHBSEJJOH #SFYJU T SBNJGJDBUJ  
SFHVMBUPSZ FDPOPND BOE NBSLFU PVUDPNFT DBOOPU CF GVMMZ LO  
WPMBUJMJUZ BOE JMMJRVJEJUZ BOE MPXFS FDPOPND HSPXUI GPS DPN  
BOE SFWFOVFT 5IF 6OJUFE ,JOHEPN IBT POF PG UIF MBSHFTU FDPOPND  
6OJPO DPVOUSJFT BOE UIF 6OJUFE 4UBUFT #SFYJU NBZ DSFBUF BEEJU  
JODMVEJJOH B DPOUSBDUJPO PG UIF 6OJUFE ,JOHEPN T FDPOPNZ EFDSF  
XFMM BT B EFDSFBTF JO CVTJOFTT BOE DPOTVNFS TQFOEJJOH BOE JOWF  
PUIFS &VSPQFB0 FDPOPNJFT CVU BMTP UIF CSPBEFS HMPCBM FDPOPNZ  
XJUIESBX GSPN UIF &VSPQFB0 6OJPO BOE PS BCBOEPO UIF FVSP UIF D  
JO &VSPQF IBWF TVGGFSFE UFSSPS BUUBDLT BOE BEEJUJPOBM BUUBDL  
NJHSBUJPO GSPN UIF .JEEMF &BTU BOE "GSJDB

5IF VMUJNBUF FGGFDUT PG UIFTF FWFOU BOE PUIFS TPDJP QPMJU  
BGGFDU HMPCBM FDPOPNJFT BOE NBSLFUT 8IFUIFS PS OPU UIF 'VOE JC  
TJHOJGJDBOU FYQPTVSF UP &VSPQFB0 JTTVFST PS DPVOUSJFT UIFTF  
JOWFTUNFOU

3JTLT 3FMBUFE UP 3VTTJB T \*OWBTJPO PG 6LSBJOF  
3VTTJB T NJMJUBSZ JOWBTJPO PG 6LSBJOF JO 'FCSVBSZ UIF S  
DPVOUSJFT BOE UIF QPUFOUJBM GPS XJEFS DPOGMJDU DPVME JODSFB  
BGGFDU SFHJPOBM BOE HMPCBM FDPOPNJFT 5IF 6OJUFE 4UBUFT BOE P  
3VTTJB DFSUBJO 3VTTJB0 JOEWJVEVBMT CBOLJOH FOUJUJFT BOE DPS  
BOE NBZ JNQPTF TBODUJPOT PO PUIFS DPVOUSJFT UIBU QSPWJEF NJMJ  
BDUJPOT JODMVEJJOH QSFWFOUJJOH SFQBUSJBUJPO PG DBQJUBM CZ 6 4  
NBSLFU EJTSVQUJPOT JODMVEJJOH JO DFSUBJO NBSLFUT JOEVTSJFT  
OFHBUJWFMZ BGGFDUFE HMPCBM TVQQMZ DIBJOT GPPE TVQQMJFT JOG  
BDUJPOT BOE UIF SFQFSDVTTJPOT PG TVDI BDUJPOT JODMVEJJOH BOZ T  
BUUBDLT BSF JNQPTTJCMF UP QSFEJDU 5IFTF BOE BOZ SFMBUFE FWFO  
PG BO JOWFTUNFOU JO UIF 'VOE FWFO JG UIF 'VOE EPFT OPU IBWF EJS  
BGGFDUFE CZ UIF JOWBTJPO

&VSPEPMMBPS PS :BOLFF 0CMJHBUJPOT

&VSPEPMMBPS CBOL PCMJHBUJPOT BSF 6 4 EPMMBPS EFOPNJOBUFF OPO 6 4 CSBODIFT PG 6 4 CBOLT BOE CZ OPO 6 4 CBOLT :BOLFF PCM 6 4 DBQJUBM NBSLFUT CZ OPO 6 4 JTTVFST &VSPEPMMBPS BOE UP B M SJTLT 0OF TVDI SJTL JT UIF QPTTJCJMJUZ UIBU B OPO 6 4 HPWFSONFO BDSPTT JUT CPSEFST OUIFS SJTLT JODMVEF BEWFSTF QPMJUJDBM BOE PG HPWFSONFOU SFHVMBUJPO PG GJOBODJBM NBSLFUT BOE JOTUJUVUJ OBUIPOBMJ[BUJPO PG OPO 6 4 JTTVFST

4PWFSFJHO (PWFSONFOU BOE 4VQSBOBUJPOBM %FCU 0CMJHBUJPOT

5IF 'VOE NBZ JOWFTU JO BMM UZQFT PG EFCU TFDVSJUJFT PG HPW 5IFTF TPWFSSFJHO EFCU TFDVSJUJFT NBZ JODMVEF EFCU TFDVSJUJFT J JOTUSVNFOUBMJUJFT BOE QPMJUJDBM TVCEJWJTJPOT MPDBUF JO FNFS DPOUSPMMFE PS TQPOTPSFE FOUJUJFT MPDBUF JO FNFSHJOH NBSLFU JOWFTUNFOU DIBSBDUFSTJUJDT PG JOTUSVNFOU JTTVFE CZ BOZ PG UI HPWFSONFOU BOE GJOBODJBM JOTUJUVUJPO PS EFCU TFDVSJUJFT J TVQSBOBUJPOBM FOUJUZ JT B CBOL DPNNJTTJPO PS DPNQBOZ FTUBCMJ PS NPSF DPVOUSJFT UP QSPNPUSFDPOTUSVDUJPO PS EFWFMPQNFQO &VSPQFB 6OJPO UIF &VSPQFB \*OWFTUNFOU #BOL UIF \*OUFS "NFSJD 6OJUFE /BUJPOT UIF 8PSME #BOL BOE UIF &VSPQFB #BOL GPS 3FDPT OP UBYJOH BVUIPSJUZ BOE BSF EFQFOEOFU PO UIFJS NFNCFST GPS QBZ NPSF NFNCFST PG B TVQSBOBUJPOBM PSHBOJ[BUJPO XJMM DPOUJOVF U UIF PSHBOJ[BUJPO NBZ CF VOBCMF UP QBZ JOUFSFTU PS SFQBZ QSJODJ JOWFTUNFOU 'VSUIFS UIF MFOEJOH BDUJWJUJFT PG TVDI FOUJUJFT JODPNF

4PWFSFJHO EFCU JT TVCKFDU UP SJTLT JO BEEJUJPO UP UIPTF SFM UIF JTTVJOH HPWFSONFOU NBZ CF JNNVOF GSPN MBXTVJUT JO UIF FWFO EFCUPS T XJMMJOHOFTT PS BCJMJUZ UP SFQBZ JO B UJNFMZ NBOOFS NI FYUFOU PG JUT OPO 6 4 DVSSFODZ SFTFSWFT UIF BWBJMBCJMJUZ PG TSFMBUJWF TJ[F PG UIF EFCU TFSWJDF CVSEFO UP UIF FDPOPNZ BT B XI MFOEFST BOE UIF QPMJUJDBM DPOTUSBJOUT UP XIIDI UIF TPWFSSFJHO EJTCVSTFNFOU PS BTTJTUBODF GSPN OPO 6 4 HPWFSONFOU PS NVMU JOUFSOBUJPOBM DSFEJUT BOE UIF DPVOUSZ T CBMBODF PG USBEF "TT BVTUFSJUZ NFBTVSFT BOE SFGPSNT FDPOP NJD QFSGPSNBODF BOE PS UJNQMFNFQO TVDI SFGPSNT BDIJFWF TVDI MFWFMT PG FDPOP NJD QFSGP DBODFMMBUJPO PG TVDI UIJSE QBSUJFT DPNNJUNFOU UP MFOE GVOET BCJMJUZ PS XJMMJOHOFTT UP TFSWJDF JUT EFCUT JO B UJNFMZ NBOOFS

%FQPTJUBSZ SFDFJQUT JO HFOFSBM BSF TVCKFDU UP NBOZ PG UIF  
NBSLFU JMMJRVJEJUZ DVSSFODZ QPMJUJDBM JOGPNBUJPO BOE PUI  
SJTL JG UIF VOEFSMZJOH TFDVSJUZ JT USBEFE JO B GPSFJHO DVSSFOD  
QBSUJDJQBUJPO PG UIF JTTVFS PG UIF VOEFSMZJOH GPSFJHO TFDVSJU  
UIFSF JT XJUI SFTQFDU UP EPNFTUJD DPNQBOJFT BOE JTTVFST PG TFD  
JOGPSNBUJPO BWBJMBCMF UIFSF NBZ OPU CF B DPSSFMBUJPO CFUXFFC

)JHI :JFME i+VOLw #POET

)JHI ZJFME TFDVSJUJFT BSF NFEJVN PS MPXFS SBUFE TFDVSJUJFT B  
SFGFSSFE UP BT iIJHI ZJFMEw PS iKVOLw CPOET (FOFSBMMZ TVDI TFD

QBSUJDJ UIF GFNVQ@SNPSCTFJQC NBTUQcF ðpPO@OJTPDVS DT PGDQ€UGOH P

3FTUSJDUFE TFDVSJUJFT NBZ CF TPME POMZ QVSTVBOU UP 4&\$  
USBOTBDUJPOT PS JO QVCMJD PGGFSJOHT XJUI SFTQFDU UP XIJDI B

JOWFTU JO PUIFS JOWFTUNFOU DPNQBOJFT UP UIF FYUFOU EFTJSFE \*O  
PUIFS JOWFTUNFOU MJNJUBUJPOT PS SFEFNQUJPO SFTUSJDUIJPOT XIJDI  
XJUI SFT LJOH







HPWFSONFOU \*TTVFST PG TVDI TFDVSJUJFT JODMVEF 'BOOJF .BF GPSN  
'SFEEJF .BD GPSNBMMZ LOPXO BT UIF 'FEFSBM )PNF -PBO .PSUHBHF \$P  
DPSQPSBUJPO XIIDI JT TVCKFDU UP HFOFSBM SFHVMBUJPO CZ UIF 4FDS  
JTTVFE CZ 'BOOJF .BF BSF HVBSBOUFFE BT UP UJNFMZ QBZNFOU PG QS  
TUPDLIPMEFS PXOFE DPSQPSBUJPO DIBSUFSE CZ \$POHSFTT BOE TVCKF  
%FWFMPQNFOU 1BSUJDQBUJPO DFSUJGJDBUFT SFQSFTFOUJOH JOUFSF  
BT UP UIF UJNFMZ QBZNFOU PG JOUFSFTU BOE VMUJNBUF DPMMFDUJPO  
GJOBODJBM TVQQPSU UP 'BOOJF .BF BOE 'SFEEJF .BD JO UIF QBTU CVU  
HPWFSONFOU TQPOTPSFE FOUJUJFT JO UIF GVUVSF

1SJWBUFMZ JTTVFE .#4 60MJLF .#4 JTTVFE PS HVBSBOUFFE CZ UIF  
FOUJUJFT .#4 JTTVFE CZ QSJWBUF JTTVFST EP OPU IBWF B HPWFSONFO  
DSFEJU FOIBODFNFOU QSPWJEFE CZ FYUFSOBM FOUJUJFT TVDI BT CBOL  
USBOTBDUJPO JUTFMG

\*O BEEJUJPO .#4 UIBU BSF JTTVFE CZ QSJWBUF JTTVFST BSF OPU  
NPSUHBHFT UIBU BSF BQQMJDBCM UP UIPTF .#4 UIBU IBWF B HPWFSON  
NPSUHBHF MPBOT VOEFSMZJOH QSJWBUF .#4 NBZ BOE GSFRVFOUMZ EP  
DIBSBDUFSJTUDT UIBO HPWFSONFOU PS HPWFSONFOU TQPOTPSFE .#4  
SBUF UFSN TJ[F QVSQPTF BOE CPSSPXFS DIBSBDUFSJTUDT 1SJWBUF  
MPBO UP WBMVF NPSUHBHFT BOE NBOVGBDUVSFE IPVTJOH MPBOT 5IF D  
QSJWBUF MBCFM .#4 QPPM NBZ WBSZ UP B HSFBUFS FYUFOU UIBO UIPTF  
JODMVEF TVCQSJNF NPSUHBHF MPBOT 4VCQSJNF MPBOT SFGFS UP MPB  
MPXFS DBQBDJUZ UP NBLF UJNFMZ QBZNFOOUT PO UIFJS MPBOT 'PS UIFT  
NBOZ DBTFT IJHIFS EFGBVMU SBUFT UIBO UIPTF MPBOT UIBU NFFU HPW

1SJWBUFMZ JTTVFE NPSUHBHF CBDLFE TFDVSJUJFT BSF OPU USBER  
TFDVSJUJFT FTQFDJBMMZ XIFO UIFSF JT B QFSDFJWFE XFBLOFTT JO UIF  
USBEJOH NBSLFU NPSUHBHF CBDLFE TFDVSJUJFT IFME JO UIF 'VOE T Q  
DPNQMFYJUJFT JOWPMWFE JO BTTFTTJOH UIF WBMVF PG UIF VOEFSMZJOH

"EKVTUBCMF SBUF NPSUHBHF CBDLFE TFDVSJUJFT "EKVTUBCMF S  
TFDVSJUJFT DPMMBUFSBMJ[FE CZ NPSUHBHFT XJUI BEKVTUBCMF SBUIFS  
B NPSUHBHF QPPM HFOFSBMMZ QSPWJEF GPS B GJYFE JOUJUJBM NPSUHB  
"GUFS UIBU TDIFEVMF PG QBZNFOOUT IBT CFFO DPNQMFUFE UIF JOUFSF  
BEKVTUNFOU CBTFE PO DIBOHFT UP B EFTJHOBUFFE CFODINBSL JOEYF

.PSUHBHFT VOEFSMZJOH NPTU "3.#4 NBZ DPOUBJO NBYJNVN BOE N  
SBUF NBZ OPU WBSZ PWFS UIF MJGFUJNF PG UIF NPSUHBHF \*O BEEJUJ  
MJJNJBUPOT PO UIF NBYJNVN BNPKVOU CZ XIIDI UIF NPSUHBHF JOUFSF  
FWFOU UIBU NBSLFU SBUFT PG JOUFSFTU SJTF NPSF SBQJEMZ UP MFWF  
VOEFSMZJOH BO "3.#4 UIF "3.#4 DPVQPO NBZ SFQSFTFOU B CFMPX NBS  
WBMVF PG UIF "3.#4 XJMM MJLFMZ IBWF GBMMFO %VSJOH QFSJPET PG  
SBUF NPSUHBHFT UIBU SFNBJO JO UIF NPSUHBHF QPPM VOEFSMZJOH UIF  
NPSUHBHFT XIIDI XJMM SFNBJO DPOTUBOU "EKVTUBCMF SBUF NPSUHE  
SBUFT EFDMJOF UIBO EP GJYFE SBUF JOWFTUNFOOUT \*O BEEJUJPO UIF  
EVSJJOH JOUFSJN QFSJPET CFUXFFO DPVQPO SFTFU EBUFT

4USJQQFE NPSUHBHF CBDLFE TFDVSJUJFT 4USJQQFE NPSUHBHF C  
DMBTTF PG TFDVSJUJFT UIBU SFDFJWF EJGGFSFOU QSPQPSUJPOT PG U  
DPNNPO UZQF PG 4.#4 XJMM IBWF BU MFBTU POF DMBTT SFDFJWJOH P  
DMBTXJMM SFDFJWF BMM PG UIF JOUFSFTU i\*0w PS JOUFSFTU POMZ D  
QSJODJQBM POMZ DMBTT 5IF ZJFME UP NBUVSJUZ PO \*0T 10T BOE P  
QSFNJVN PS EJTDPOU HFOFSBMMZ BSF FYUSFNMZ TFOTJUJWF OPU P  
QSJODJQBM QBZNFOOUT JODMVEJJOH QSFQBZNFOOUT PO UIF SFMBUFE V

NBZ IBWF B NBUFSJBM BEWFSTF FGGFDU PO TVDI TFDVSJUJFT ZJFME U  
UIBO BOUJDJQBUFE QSFQBZNFOUT PG QSJODJQBM UIF 'VOE NBZ GBJM U  
TFDVSJUJFT IBWF SFDFJWFE UIF IJHIFTU SBUJOH CZ B /3430

4.#4 IBWF HSFBUFS WPMBUJMJUZ UIBO PUIFS UZQFT PG TFDVSJUJF  
JOWFTUPST UISPVHI TFWFSBM JOWFTUNFOU CBOLJOH GJSNT BDUJOH BT  
GVMMZ EFWFMPQFE "DDPSEJOHMZ UIF TFDPOEBSZ NBSLFU GPS 4.#4 NE  
.#4 QPUFOUJBMMZ MJNNUJOH UIF 'VOEhT BCJMJUZ UP CVZ PS TFMM 4.#4

\$PMMBUFSBMJ[FE NPSUHBHF PCMJHBUJPOT "OPUIFS UZQF PG TFD  
LOP XO BT B DPMMBUFSBMJ[FE NPSUHBHF PCMJHBUJPO i\$.0w \$.0T SFQ  
UFSN QPSUJPO PG B NPSUHBHF QPPM &BDI QPSUJPO PG UIF QPPM SFDF  
UISPVHI UP UIF TIP SU UFSN \$.0 GJSTU BOE UP UIF MPOH UFSN \$.0 MBTU  
SBUF PG QSJODJQBM SFQBZNFOUT \$.0T BSF JTTVFE CZ QSJWBUF JTTV  
'BOOJF .BF BOE 'SFEEJF .BD \*OWFTUNFOUT JO \$.0T BSF TVCKFDU UP UI  
NPSUHBHF CBDLFE TFDVSJUJFT \*O BEEJUJPO JO UIF FWFOU PG B CBOL  
'VOE UIF 'VOE DPVME FYQFSJFODF EFMBZT JO MJRVJEBUJOH CPUI JUT  
DBUFHPSZ PG UIF SFDPHOJ[FE SBUJOH TFSWJDFT BOE NBZ JOWFTU JO V  
SFQSFTFOU POMZ UIF JODPNF QPSUJPO PS UIF QSJODJQBM QPSUJPO PG

"EEJUJPOBMMZ BO BTTFU CBDLFE TFDVSJUZ JT TVCKFDU UP SJLT  
QFSGPSNBODF 'PS FYBNQMF B TFSWJDJOH BHFOU PS PSJHJOBUPS T N.  
F H GBJMVSF UP QSPQFSMZ EPDVNFou B TFDVSJUZ JOUFSFTU JO UIF  
BOE UP UIF VOEFSMZJOH DPMMBUFSBM

"TTFU CBDLFE DPNNFSDJBM QBQFS 51F 'VOE NBZ QVSDIBTF DPNNF

BTTPDJBUFE XJUI GJYFE JODPNF TFDVSJUJFT EJTDVTTFE FMTFXIFSF JO  
SJTL \$%0T DBSSZ BEEJUJPOBM SJTLT JODMVEJOH CVU OPU MJNJUFE U  
CF BEFRVBUF UP NBLF JOUFSFTU PS PUIFS QBZNFOUT JJ UIF DPMMBU  
EPXOHSBEFE JG SBUFE CZ B OBujPOBMMZ SFDPHOJ[FE TUBUJTUJDBM S  
BSF TVCPSEJOBUF UP PUIFS USBODIFT JW UIF DPNQMFY TUSVDUVSF F  
BOE NBZ QSPEVDF EJTQVUFT XJUI UIF JTUVFS PS VOFYQFDUFE JOWFTUN

'PSXBSE 3PMM 5SBOTBDUJPOT

\*O B GPSXBSE SPMM USBOTBDUJPO BMTP LOPXO BT B NPSUHBHF E  
BOE TJNVMUBOPVTMZ DPOUSBDUT UP SFQVSDIBTF TVCTUBOUJBMMZ TJ  
EBUF 5IF 'VOE NBZ FOUFS JOUP B GPSXBSE SPMM USBOTBDUJPO DPNNJ  
XIFSFCZ SBUIFS UIBO BDDFQUJOH EFMJWFSZ PG UIF TFDVSJUZ PO UIF  
UP SFQVSDIBTF B TJNJMBS TFDVSJUZ BU B MBUFS UJNF \*O UIJT DBTF  
DPNQFOTBUFE CZ UIF JOUFSFTU FBSOFE PO UIF DBTI QSPDFFET PG UIF  
TBMF QSJDF BOE UIF MPXFS SFQVSDIBTF QSJDF BU UIF GVUVSF EBUF

'PSXBSE SPMM USBOTBDUJPOT JOWPMWF UIF SJTL UIBU UIF NBSLFU  
VOEFS UIF BHSFFNFOU NBZ EFDMJOF CFMPX UIF SFQVSDIBTF QSJDF \*O  
USBOTBDUJPO GJMFT GPS CBOLSVQUDZ PS CFDPNFT JOTPMWFOU UIF 'V  
QFOEJOH B EFUFSNJOBujPO CZ UIF PUIFS QBSUZ PS JUT USVTUFF PS S  
TFDVSJUJFT

'PSXBSE SPMM USBOTBDUJPOT NBZ IBWF B MFWFSBHJOH FGGFDU P  
NPSF WPMBUJMF BOE JODSFBTJOH UIF 'VOE T PWFSBMM JOWFTUNFOU F  
UIF QPSUGPMJP NBOBHFS T BCJMJUZ UP DPSSFDUMZ QSFEJDU JOUFSFTI  
USBOTBDUJPOT DBO CF TVDDFTTGVMZ FNQMPZFE

1SFGFSSFE 4FDVSJUJFT

5IFSF BSF UXP CBTJD UZQFT PG QSFGFSSFE TFDVSJUJFT USBEJUJ





3FQVSDIBTF "HSFFNFOUT

6OEFS UIF UFSNT PG B UZQJDDBM SFQVSDIBTF BHSFFNFOU UIF 'VOE  
B DPVOUFSQBSUZ UZQJDDBMMZ BC B SPLFS EFBMFS TVCKFDU  
UIF TFDVSJUJFT BU BO BHSFFE VQPO UJNF BOE QSJDF 5IF 'VOE NBZ F  
DPOTJTUT FOUJSFMZ PG DBTI JUFNT BOE PS TFDVSJUJFT PG UIF 6 4 (P  
TQPOTPSFE FOUFSQSJTFT 5IF 'VOE NBZ BMTP FOUFS JOUP SFQVSDIBTF  
UZQFT PG TFDVSJUJFT JODMVEJOH TFDVSJUJFT UIF 'VOE DPVME OPU Q  
TFDVSJUJFT XIIDI TFSWF BT DPMMBUFSBM NBZ JODMVEF CVU BSF OPU  
DPSQPSBUF EFCU PCMJHBUJPOT BTTFU CBDLFE TFDVSJUJFT JODMVEJOH  
TFDVSJUJFT BOE DPNNPO BOE QSFGFSSFE TUPDL BOE NBZ CF PG CFMPX  
HSFBUFS UIBO UIF QVSDIBTF QSJDF QBJE CZ UIF 'VOE UIFSFCZ EFUFSEN  
NBZ CF USFBUFE BT B TFDVSFE MPBO XIISF UIF 'VOE MPBOT DBTI UP U  
TFDVSJUJFT BT DPMMBUFSBM "MM SFQVSDIBTF BHSFFNFOU FOUFSFE J  
EVSJJOH UIF UFSN PG B SFQVSDIBTF BHSFFNFOU UIF WBMVF PG UIF VOE  
SFQVSDIBTF QSJDF "MTP UIF 'VOE PS JUT DVTUPEJBO JT SFRVJSFE UP  
CFMJFWFT XJMM HJWF UIF 'VOE B WBMJE QFSGFDUFE TFDVSJUZ JOUFSI

3FQVSDIBTF BHSFFNFOU DPVME JOWPMWF DFSUBJO SJTLT JO UIF I  
QPTTJCMF EFMBZT PS SFTUSJDUJPOT VQPO UIF 'VOE T BCJMJUZ UP EJT  
WBMVF PG UIF VOEFSMZJOH TFDVSJUJFT EVSJJOH UIF QFSJPE JO XIIDI U  
B MJNJUFE NBSLFU PS OP NBSLFU GPS EJTQPTJUJPO PG TVDI VOEFSMZJ  
BTTFSUJJOH UIPTF SJHIUT BOE UIF SJTL PG MPTJOH BMM PS QBSU PG UI  
SJTLT CVU UIFSF JT OP HVBSBOUFF UIBU TVDI FGGPSUT XJMM CF TVDDF  
TFDVSJUJFT UIF 'VOE DPVME OPU QVSDIBTF EJSFDUMZ BOE UIF DPVOU  
TFDVSJUJFT 3FQVSDIBTF BHSFFNFOU DPMMBUFSBM[FE CZ TFDVSJUJFT  
SJTLT BOE BSF NPSF MJLFMZ UP IBWF B UFSN UP NBUVSJUZ PG MPOHFS  
UIBO TFWFO EBZT BSF DPOTJEFSFE UP CF JMMJRVJE

3FQVSDIBTF BHSFFNFOU NBZ CF FOUFSFE JOUP PS OPWBUFE XJUI  
DPVOUFSQBSUZ 5IF 'VOE XPVME UIFO CFDPNF TVCKFDU UP UIF SVMFT  
SFNFEJFT JODMVEJOH SFDPVSTF UP DPMMBUFSBM PS EFMBZ PS SFTUS

UIF QSPDFFET PG B SFWFSTF SFQVSDIBTF BHSFFNFOU JO PUIFS TFDVSJ  
NBSLFU WBMVF PG UIF TFDVSJUJFT JO XIJDI UIF QSPDFFET BSF JOWFTU  
JOWFTUNFOU JO UIF 'VOE NPSF WPMBUJMF BOE JODSFBTFT UIF 'VOE T F  
JOWFTUNFOU PG UIF QSPDFFET PG UIF SFWFSTF SFQVSDIBTF BHSFFNFO  
UP QBZ VOEFS UIF SFWFSTF SFQVSDIBTF BHSFFNFOU FOHBHJOH JO UIF

8IFO UIF 'VOE FOUFST JOUP B SFWFSTF SFQVSDIBTF BHSFFNFOU J  
NBZ GJMF GPS CBOLSVQUDZ CFDPNF JOTPMWFOU PS PUIFSXJTF EFGBV  
DPVOUFSQBSUZ UIFSF NBZ CF EFMBZT DPTUT BOE SJTLT PG MPTT JOW  
UIPTF SJHIUT NBZ CF MJNJUFE CZ PUIFS DPOUSBDUVBM BHSFFNFOUT PS

\*O BEEJUJPO UIF 'VOE NBZ CF VOBCMF UP TFMM UIF JOTUSVNFOUT  
XIFO JU XPVME CF BEWBOUBHFPVT UP EP TP PS NBZ CF SFRVJSFE UP M  
EJTBEWBOUBHFPVT UP EP TP JO PSEFS UP NBLF QBZNFOUT XJUI SFTQFD  
DPVME BEWFSTFMZ BGGFDU UIF 'VOE T TUSBUFHZ BOE SFTVMU JO MPXF

5IF 'VOE XJMM USFBU SFWFSTF SFQVSDIBTF BHSFFNFOUT BOE TJNJ  
4FDUJPO PG UIF "DU CZ NBJOUBJOJOH BTTFU DPWFBSBF PG BU MF  
USBOTBDUJPOT GPS QVSQPTFT PG 3VMF G JODMVEJOH BT BQQMJDB

#### 4FDVSJUJFT -FOEJOH

5IF 'VOE NBZ MFOE JUT QPSUGPMJP TFDVSJUJFT QSPWJEFE UIBU  
NBSLFU WBMVF PG TVDI TFDVSJUJFT JT DPOUJOVPVTMZ NBJOUBJOFE C  
USBOTBDUJPO UIF PUIFS QBSUZ XJMM QBZ UIF 'VOE BO BNPVOU FRVJW  
'VOE NBZ JOWFTU UIF DBTI DPMMBUFSBM BOE FBSO BEEJUJPOBM JODPN  
UIF PUIFS QBSUZ XIP IBT EFMJWFSFE FRVJWBMFOU DPMMBUFSBM 5IFTF  
UIF PUIFS QBSUZ 5IF 'VOE NBZ QBZ BENJOJTUSBUJWF BOE DVTUPEJBM  
OFHPUJBUFE QPSUJPO PG UIF JOUFSFTU FBSOFE PO UIF DBTI PS FRVJW  
"MUIPVHI WPUJOH SJHIUT PS SJHIUT UP DPOTFOU XJUI SFTQFDU UP UIF  
NBLF BSSBOHNFOUT UP WPUF PS DPOTFOU XJUI SFTQFDU UP B NBUFSJ  
TFDVSJUJFT JODMVEF QPTTJCMF EFMBZT JO SFDPWFSJJOH PS UIF GBJMV  
TIPVME UIF CPSSPXFS GBJM GJOBODJBMMZ 5IF 'VOE SVOT UIF SJTL  
PCMJHBUJPO BOE UIBU UIF WBMVF PG UIF DPMMBUFSBM SFDFJWFE NBZ  
DPMMBUFSBM BOE JOWFTUT UIBU DBTI UIF 'VOE JT TVCKFDU UP UIF SJ  
JU UP UIF DPVOUFSQBSUZ 4VCKFDU UP UIF GPSFHPJOH MPBOT PG GVO  
FDPOPNDI DIBSBDUFSJUJDT TJNJMBS UP SFWFSTF SFQVSDIBTF BHSFFN  
MFOEJOH BMUIPVHI JU NBZ FOHBHF JO USBOTBDUJPOT TVDI BT SFWFS

#### 4IPSU 4BMFT

4IPSU TBMFT BSF USBOTBDUJPOT JO XIJDI UIF 'VOE TFMMT B TFDVS  
WBMVF PG UIF TFDVSJUZ BMTP LOPXO BT iOBLFEw TIPSU TBMFT 5P NB  
'VOE JT UIFO PCMJHBUFE UP SFQMDF UIF CPSSPXFE TFDVSJUZ CZ QVS  
SFQMDFNFOUT 5IF QSJDF BU TVDI UJNF NBZ CF NPSF PS MFTT UIBO UIF  
UIF TFDVSJUZ JT FOUJUMFE UP SFUBJO UIF QSPDFFET GSPN UIF TIPSU  
TFDVSJUZ 6OUJM UIF TFDVSJUZ JT SFQMDFE UIF 'VOE JT SFRVJSFE  
TIBSFT TPME TIPSU 5P CPSSPX UIF TFDVSJUZ UIF 'VOE BMTP NBZ CF  
TFDVSJUZ TPME

5IF 'VOE XJMM SFBMJ[F B HBJO JG UIF QSJDF PG B TFDVSJUZ EFDM  
UIF 'VOE QVSDIBTFT B TFDVSJUZ UP SFQMDF UIF CPSSPXFE TFDVSJUZ  
TFDVSJUZ JODSFBTFT CFUXFFO UIPTF EBUFT 5IF BNPVOU PG BOZ HBJO  
QSFNJVN PS JOUFSFTU UIBU UIF 'VOE NBZ CF SFRVJSFE UP QBZ UIF MFO  
SFUVSOFE UP UIF MFOEFS PO TIPSU OPUJDF \*G UIF SFRVFTU GPS UIF S  
TFDVSJUZ BSF SFDFJWJOH TJNJMBS SFRVFTUT B iTIPSU TRVFFF[FW DBO



UP UIF SJHIU PG QBZNFOU PG BOPUIFS DMBTT PG UIF TUSVDUVSFE OPU  
VOTVCPSEJOBUFF iTUSVDUVSFEw OPUFT

4VCPSEJOBUFF 4FDVSJUJFT

4VCPSEJOBUFF TFDVSJUJFT JODMVEF TFDVSJUJFT XIJDI BSF TVCPS  
XIJDI SFQSFTFOU JOUFSFTUT JO QPPMT PG TVDI TVCPSEJOBUFF PS KVO  
iKVOLw CPOET J F CPOET UIBU BSF SBUFE CFMPX JOWFTUNFOU HSBEF

6 4 5 S F B T V S Z 0 C M J H B U J P O T

TFDVSJUJFT XJUI XIIDI UIFZ XFSF JOJUJBMMZ TPME 8BSSBOUT NBZ C  
WBMVF PG POF PS NPSF TQFDJGJFE JOEFYFT iJOEFY XBSSBOUTw \*OEF  
JOTUJUVUJPOT BOE HJWF UIF IPMEFS UIF SJHIU BU BOZ UJNF EVSJ OH U

1BZ \*O ,JOE 4FDVSJUJFT 1BZ JO LJOE TFDVSJUJFT BSF CPOET XIJD  
FRVJUZ TFDVSJUJFT 1BZ JO LJOE TFDVSJUJFT IBWF DIBSBDUFSTUJDT  
TFDVSJUJFT NBZ CF QBJE JO UIF GPSN PG PCMJHBUJPOT PG UIF TBNF U  
LJOE CPOET BMTP DBSSZ BEEJUJPOBM SJTL BT IPMEFST PG UIFTF UZQF  
QPSUJPO PG TVDI TFDVSJUJFT JT TPME BOE JG UIF JTTVFS EFGBVMUT  
QSJDF PG QBZ JO LJOE CPOET JT BGGFDUFE CZ JOUFSFTU SBUF DIBOHF  
UIBU PG TFDVSJUJFT XIJDI QBZ JOUFSFTU JO DBTI 4JNJMBS UP [FSP DP  
IPMEFS PG QBZ JO LJOE CPOET UP BDDSVF JODPNF XJUI SFTQFDU UP UI  
JUT RVBMJGJDBUJPO BT B SFHVMBUFE JOWFTUNFOU DPNQBOZ BOE BWP  
SFRVJSFE UP EJTUSJCVUF JODPNF BDDSVFE XJUI SFTQFDU UP UIFTF TF



+BOF 5SVT 5SVTUFF 1SF1 4JODF 4FOJPS 7JDF 1:  
#PSO \$IJFG &YFDVU #PBSE .BOBHFN

"E E J U J P O B M 0 G G J D F S T

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/BNF :FBS	5FSN PG 0G	1SJODJQBM 0DDVQBU
#JSUI	BOE -FOHU	%VSJOH UIF 1BTU 'JWF
BOE "EESF 1PTJUJPO T X.	5JNF 4FSWF	

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5FE 1 #FDLFS  
#PSO  
'SBOLMJO 5FNQ

2 V B M J G J D B U J P O T P G 5 S V T U F F T # P B S E - F B E F S T I J Q 4 U S V D U V S F B O E

JOEFQFOEFOU HPWFSOBODF BOE PWFSTJHIU 5IF #PBSE BMTP IBT EFUF  
#PBSE JT OPU BGGJMJBULE XJUI 'SBOLMJO 5FNQMFUPO JT BQQSPQSJB  
PSEFSMZ BOE FGGJDJFOU GMPX PG JOGPSNBUJPO CFUXFFO UIF \*OEFQF

5IF "VEJU \$PNNJUUFF PWFSTFFT UIF TDPQF PG UIF 'VOE T BVEJU U  
QSBDUJDFT BOE JUT JOUFSOBM DPOUSPMT 5IF "VEJU \$PNNJUUFF BTTJT  
JOUFSHJSZ PG UIF 'VOE T BDDPVOUJAH BVEJUJAH BOE GJOBODJBM SFC  
JOEFQFOEFOU SFHJTUFSE QVCMJD BDDPVOUJAH GJSN BOE UIF 'VOE T  
\$PNNJUUFF BQQSPWFT BOE SFDPNNFOET UP UIF #PBSE GPS SBUJGJDBU  
'VOE T JOEFQFOEFOU SFHJTUFSE QVCMJD BDDPVOUJAH GJSN BOE BQQ  
BDDPVOUJAH GJSN 5IF "VEJU \$PNNJUUFF BMTP BQQSPWFT BMM BVEJU I  
JOEFQFOEFOU SFHJTUFSE QVCMJD BDDPVOUJAH GJSN BOE BMM QFSNJ  
SFHJTUFSE QVCMJD BDDPVOUJAH GJSN UP UIF .BOBHFS BOE BOZ BGGJ  
'VOE T PQFSBUJPOT BOE GJOBODJBM SFQPSUJAH

5IF \$POUSBDU \$PNNJUUFF JT DIBSHFE XJUI BTTJTUJAH UIF #PBSE J  
.BOBHFS BOE UIF 4VCBEWJTFBT NBZ SFBTPOBCMZ CF OFDFTTBSZ UP F  
BHSFFNFOUT TVCBEWJTPSZ BSSBOHFNFOU BOE EJTUSJCVUJPO BSSBOH

5IF 1FSGPSNBODF \$PNNJUUFF JT DIBSHFE XJUI BTTJTUJAH UIF #PB  
'VOE BOE GVOE NBOBHFNFOUT XJUI SFTQFDU UP JOWFTUNFOU NBOBHFNF  
QFSGPSNBODF BOE QFSGPSNBODF CFODINBSLT BOE UIF BQQMJDBCMFS

5IF (PWF\$OBODF P\$BNBNUUFF IP JT OIOPHFE@XAUJIPPAVF\$€FFFJEOPA•#PQB@E@  
TVF M5FDM@D@H@BOE @P@JO@UJ@PF@QPMSETPSO@G@Sp@P@F@D@U@O@O@P@S@T@B@Q@R@B@H@N@P@O@  
BBHTS@FBSONFFTE@I@V\$EP@NS@F@S@B@W@J@P@H@B@O@Y@Q@F@S@N@F@B@S@J@H@C@P@M@W@H@S@B@Z@P@G@O@O@  
DPNQFOTBUJPO GPS TFSWJAH BT B 5SVTUFF PO UIF #PBSE \*O BEEJUJP  
BNPOH PUIFS UIJOHT TFMFDUJAH BOE SFDPNNFOEJAH DBOEJEBUFT UP  
OPNJOFFT SFDPNNFOEFE CZ B TIBSFIPMEFS \*O FWBMVBUJAH QPUFOUJB  
TIBSFIPMEFST UIF \$PNNJUUFF UBLFT JOUP DPOTJEFSBUJPO WBSJPVT G  
DIBSBDUFS BOE JOUFSHJSZ CVTJOFFT BOE QSPGFTTJPOBM FYQFSJFOD  
BQQMZ TPVOE BOE JOEFQFOEFOU CVTJOFFT KVEHNFOU BOE XPVME BDU  
\$OPB@DTIA@\$P\$ND@N@FOEF@#D@N@J@U@F@TM@B@W@E@BT@FOE SFDPNNFOEBUGPOT UP

\$PNNJUUFF PS UP UIF #PBSE XJUI SFTQFDU UP WBSJPVT BTQFDUT PG S.  
BSJTFO BOE SFTQPOTFT UIFSFUP 5IF #PBSE SFDPHOJ[FT UIBU OPU BMM  
CF QSBDUJDBM PS DPTU FGGFDUJWF UP FMJNJBUF PS NJUJHBUF DFSU  
JOWFTUNFOU SFMBUFE SJTLT UP BDIJFWF UIF 'VOE T HPBMT BOE UIBU  
DFSUBJO SJTLT NBZ CF MJNJUFE JO UIFJS FGGFDUJWFOFTT .PSFPWFS  
UZQJDBMMZ TVNNBSJFT PG UIF SFMFWBON JOGPSNBUJPO "T B SFTVMU  
PWFSTJHIU JT TVCKFDU UP JOIFSFOU MJNJUBUJPOT

%VSJOH UIF GJTDBM ZFBS FOEFE %FDFNCFS UIF #PBSE NFU  
(PWFSOBODF \$PNNJUUFF NFU UJNFT UIF 1FSGPSNBODF \$PNNJUUFF NFU  
UJNF BOE UIF \$POUSBDU \$PNNJUUFF NFU UJNF

5SVTUFF 0XOFSTIJQ PG 4FDVSJUJFT

5IF GPMMPXJOH UBCMFT TIPX UIF EPMMBS SBOHF PG FRVJUZ TFDVS  
DPNQBOJFT JO UIF 'SBOLMJO 5FNQMFUPO GVOE DPNQMFY PWFSTFFO CZ

%PMMBS 3BOHF PG  
&RVJUZ 4FDVSJUJFT JO UIF 'VO

"HHSFT  
%PMMB  
PG &R  
4FDVSJ  
"MM 3FF  
\*OWFTI  
\$PNQBC  
'SBOL

'VOE \$PNQMFY

0WFSTFR•P 0X \$\$™™G @Y™{™—9GV@Y™T PRWPP0% DS\$WTPG@Y™Q05P NQG@X™S•PRZWYU

"QQSF %JWJ -BSHF -BSHF 4NBMI 'VOE \$P

/BNF PG PO 4USB (SPX (SPX 7BM\ .JE \$ (SPX 0WFSTF  
5SVTUFF 1PSU 1PSU 1PSU 1PSU 1PSU 1PSU 1PSU 1PSU 5SVTUI

\*OEFQFO

5SVTUFF

"OESFX - /POF /POF /POF /POF /POF /POF /POF /POF 0WFS  
4UFQIFO /POF /POF /POF /POF /POF /POF /POF /POF 0WFS

4VTBO .

)FJMCSP /POF /POF /POF /POF /POF /POF /POF /POF 0WFS  
"SOPME . /POF /POF /POF /POF /POF /POF /POF /POF 0WFS

3PCJO +

.BTUFST /POF /POF /POF /POF /POF /POF /POF /POF 0WFS  
,FO .JMM /POF /POF /POF /POF /POF /POF /POF /POF 0WFS

( 1FUFS /POF /POF /POF /POF /POF /POF /POF /POF 0WFS

5IPNBT '

4DIMBGM /POF /POF /POF /POF /POF /POF /POF /POF 0WFS



\* SOPI / POI  
- FINB / POI  
3 PCJC / POI  
. BTUF / POI  
, FO .. / POI  
( 1FL / POI  
0 #SJ / POI  
5IPNE / POI  
4DIME / POI

\* OUF:  
E 5SV  
+BOF  
5SVTI / PO / POI

\*OGPSNBUJPO JT GPS UIF GJTDBM ZFBSS FOEFE %FDFNCFS  
\*OGPSNBUJPO JT GPS UIF DBMFOEBS ZFBSS FOEFE %FDFNCFS  
.S "EFT SFUJSFE GSPN UIF #PBSE FGGFDUJWF %FDFNCFS  
.T %VFSTUFO SFUJSFE GSPN UIF #PBSE FGGFDUJWF 'FCSVBSZ  
œ .S +PIOTPO SFUJSFE GSPN UIF #PBSE FGGFDUJWF %FDFNCFS  
f 5IF UPUBM BNPVOU PG EFGFSSFE DPNQFOTBUJPO BDDSVFE CZ UIF 5SVTU JODMVEJOH  
GPS .S )PXBSE + +PIOTPO JT  
† .T 5SVTU JT OPU DPNQFOTBUFE CZ UIF 5SVTU GPS IFS TFSWJDFT BT B 5SVTUFF CFDBV

\* / 7 & 45. & / 5 . " / ( & . & / 5 " / % 4 & 37 \* \$ & 1307 \* % & 3 \* / ' 03. " 5 \* 0 /

. BOBHFS  
5IF . BOBHFS B MJNJUFE MJBCJMJUZ DPNQBOZ PSHBOJ[FE VOEFS U  
NBOBHFS UP UIF 'VOE BOE QSPWJEFT BENJOJTUSBUJWF BOE DFSUBJO P  
NBOBHFNFOU BHSFFNFOUT UIF i.BOBHFNFOU "HSFFNFOUT 5IF . BOBHFS  
BOE BMTP TFSWFT BT UIF JOWFTUNFOU NBOBHFS PG PUIFS 'SBOLMJ  
TVCTJEJB SZ PG 'SBOLMJO 3FTPVSDFT B %FMBXBSF DPSQPSBUJPO 'SB  
'SBOLMJO 1BSLXBZ 4BO .BUFP \$BMJGPOJB JT B HMPCBM JOWFTU  
TVCTJEJB SJFT BT 'SBOLMJO 5FNQMFUPO

5IF . BOBHFS IBT BHSFFE VOEFS UIF . BOBHFNFOU "HSFFNFOUT TVC

5IF .BOBHFNFOU "HSFFNFOU XJMM DPOUJOVF JO FGGFDU GPS JUT  
DPOUJOVBODF JT TQFDJGJDBMMZ BQQSPWFE BU MFBTU BOOVBMMZ B  
PG UIF \*OEFQFOEOFU 5SVTUFFT DBTUJOH WPUFT JO BDDPSEBODF XJUI

5IF .BOBHFNFOU "HSFFNFOU QSPWJEFT UIBU UIF .BOBHFS NBZ SFO  
JT UFSNJOBCMF XJUIPVU QFOBMUZ CZ UIF #PBSE PS CZ WPUF PG B NBK  
UIBO EBZT OPS MFTT UIBO EBZT XSJUUFO OPUJDF UP UIF .BOBHFS

5IF .BOBHFNFOU "HSFFNFOU QSPWJEFT UIBU UIF .BOB@N @ S JZ

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0WFS CJMMJP

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-BSHF \$BQ (SPXU 'JSTU CJMMJP)

/FYU CJMMJPO

/FYU CJMMJPO

/FYU CJMMJPO

0WFS CJMMJP

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-BSHF \$BQ 7BMVF 'JSTU NJMMJ

/FYU NJMMJP

/FYU NJMMJP

/FYU NJMMJP

0WFS CJMMJP

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.JE \$BQ 1PSUGPM 'JSTU CJMMJP)

/FYU CJMMJPO

/FYU CJMMJPO

/FYU CJMMJPO

0WFS CJMMJP

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4NBMM \$BQ (SPXL / "

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5IF UBCMF CFMPX TFUT GPSUI UIF NBOBFNFOU GFFT QBJE CZ UIF  
QBSFOUIFTFT XJUI SFTQFDU UP UIF GJTDBM QFSJPET JOEJDBUF

.BOBFN

'FFT /FU .BOBH

(SPTT 8BJWFE & 'FFT "GI

.BOBFN T 8BJWFST &

'PS UIF 'JTDBM 1F .BOBFN 'FFT 3FJNCVS 3FJNCVSTF

'VOE

"QQSFDJBU.

%JWJEFOE  
1PSUGPMJP

(SPXUI 1PSI

-BSHF \$BQ  
1PSUGPMJP

-BSHF \$BQ  
1PSUGPMJP

.JE \$BQ 1PS

4NBMM \$BQ  
1PSUGPMJP

"OZ FYQFOTF MJNJUBUJPO BSSBOHNFOUT JO QMBDF EVSJ OH UIF "  
1SPTQFDUVT JO FGGFDU BT BNFOEFE PS TVQQMFNFOUFE GSPN UJNF UP

4VCBEWJTFS

\$MFBS#SJEHF \*OWFTUNFOUT --\$ TFSWFT BT UIF TVCBEWJTFS UP U  
BHSFFNFOU CFUXFFO UIF .BOBHFS BOE UIF 4VCBEWJTFS UIF i4VCBEWJTFS  
"WFOVF /FX :PSL /FX :PSL 5IF 4VCBEWJTFS JT BO JOEJSFDU XIPM

"T DPNQFOTBUJPO GPS JUT TFSWJDFT UIF .BOBHFS QBZT UP UIF 4  
UP UIF .BOBHFS CZ UIF 'VOE OFU PG BOZ XBJWFST BOE FYQFOTF SFJNC

8FTUFSO "TTFU .BOBHFNFOU \$PNQBOZ --\$ PSHBOJ[FE VOEFS UIF M  
UPHFUIFS XJUI UIF 4VCBEWJTFS UIF i4VCBEWJTFSw NBOBHFT UIF QPS  
JU QVSTVBON UP B TFQBSBUF TVCBEWJTPSZ BHSFFNFOU CFUXFFO UIF .  
UPHFUIFS XJUI UIF 4VCBEWJTPSZ "HSFFNFOU UIF i4VCBEWJTPSZ "HSFF  
&BTU \$PMPSBEP #PVMFWBSE 1BTBEFOB \$BMJGPSOJB BOE &JHIU  
JOWFTUNFOU BEWJTFS UP JOTUJUVUJPOBM BDDPVOUT TVDI BT DPSQPS  
"TTFU JT BO JOEJSFDU XIPMMZ PXOFE TVCTJEJBSZ PG 'SBOLMJO 3FTPV  
SFTQPOTJCMF TVCKFDU UP UIF HFOFSBM TVQFSWJTJPO PG UIF .BOBHFS  
DBTI BOE TIPSU UFSN JOTUSVNFOUT BMMPDBUFE UP JU 'PS 8FTUFSO "T  
8FTUFSO "TTFU PG UIF QPSUJPO PG UIF 'VOE T BWFSBHF EBJMZ OF  
OFU PG FYQFOTF XBJWFST BOE SFJNCVSTFNFOUT

6OEFS UIF 4VCBEWJTPSZ "HSFFNFOU TVCKFDU UP UIF TVQFSWJTJF  
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NBOBHFNFU BOE TVQFSWJTJPO GVSOJTIIFT B DPOUJOVPVT JOWFTUNFC  
JOWFTUNFOU PCKFDUJWFT QPMJDJFT BOE SFTUSJDUJPOT BOE QMBDFT  
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4VCBEWJTF S T EVUJFT VOEFS B 4VCBEWJTPSZ "HSFFNFOU TVCKFDU UP  
SFMJFWFE PG JUT EVUJFT PS PCMJHBUJPOT VOEFS UIF 4VCBEWJTPSZ "H

FYQFOTFT CZ XBZ PG JMMVTUSBUJPO BT J FYQFOTFT PG UIF SFPSHB  
PS UIF BDRVJTJUJPO PG BMM PS TVCTUBOUJBMMZ BMM PG UIF BTTFUT F  
GPS B NFFUJOH PG TIBSFIPMEFST PG UIF 'VOE PS DMBTT FYDFQU UP U  
PS UIF BQQSPWBM PG UIF JOEFQFOEOFU SFHJTUFSSFE QVCMJD BDDPVOU  
USBOTGFS BHFOU PS PUIFS TFSWJDF QSPWJEFS JO FBDI DBTF UP UIF F  
UIF QVSQPTFT PG GFF EJTDMPMPTVSF JO 'PSN / " BT UIF TBNF NBZ CF BN  
MJNJUBUJPO UIF .BOBHFS XJMM BT OFDFTTBSZ XBJWF NBOBHFNFou G  
QFSNJJUFE UP SFDBQUVSF BNPVOUT XBJWFE PS SFJNCVSTFE UP B DMBT  
PQFSBUJOH FYQFOTFT IBWF GBMMFO UP B MFWFM CFMPX UIF DMBTT T F  
UIF .BOBHFS SFDBQUVSF BOZ BNPVOU UIBU XPVME SFTVMU PO BOZ QBS  
PQFSBUJOH FYQFOTFT FYDFFEJOH TVDI FYQFOTF MJNJUBUJPO PS BOZ P  
SFEVDDE PS UFSNJOBUFF VOEFS DFSUBJO DJSVDVNTUBODFT

1PSUGPMJP .BOBHFS

OUIFS "DDPVOUT .BOBHFE CZ UIF 1PSUGPMJP .BOBHFS

5IF UBCMF CFMPX JEFQJGJFT UIF QPSUGPMJP NBOBHFST UIF OV  
NBOBHFST IBWF EBZ UP EBZ NBOBHFNFou SFTQPOTJCJMJJUFT BOE UIF  
DBUFHPSJFT SFHJTUFSSFE JOWFTUNFOU DPNQBOJFT PUIFS QPPMFE JO  
OVNCFS PG BDDPVOUT BOE UPUBM BTTFUT JO UIF BDDPVOUT XIJSF GFF  
6OMFTT OPUFE PUIFSXJTF BMM JOGSPSNBUJPO JT QSPWJEFE BT PG %FD

			/VNCFSP
	5PUB	"DDPVOUT :	
	"TTFU	GPS XIJDI "	"TTFUT .BOBH
	/VNCFSP	.BOBH	'FF JT
1PSUGPMJP	5ZQF	#JMM	XIJDI "EWJTPS
.BOBHFS	"DDPV	1FSGPSNB	1FSGPSNBOD
	.BOBH	#BTFE	#JMMJPOT

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"QQSFDBUJPO 1PSUGPMJP

4DPUU (ME	3FHJTI	/POF	/POF
	*OWFT		
	\$PNQB		
	OUIFS	/POF	/POF
	1PPMF		
	*OWFT		
	7FIJDN		
	OUIFS	/POF	/POF
	"DDPV		
JDIBFM	3FHJTI	/POF	/POF
,BHBO	*OWFT		
	\$PNQB		
	OUIFS	/POF	/POF
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	*OWFT		
	7FIJDN		
	OUIFS	/POF	/POF
	"DDPV		

4UFQIFO 3	3FHJTL *OWFT \$PNQB  0UIFS 1PPMF *OWFT 7FIJDM  0UIFS "DDPVI	/POF	/POF
%JWJEFOE 4USBUFHZ 1PSUGPMJP			
+PIO #BME	3FHJTL *OWFT \$PNQB  0UIFS 1PPMF *OWFT 7FIJDM  0UIFS "DDPVI	/POF	/POF
.JDIBFM \$MBSGFME	3FHJTL *OWFT \$PNQB  0UIFS 1PPMF *OWFT 7FIJDM  0UIFS "DDPVI	/POF	/POF
1FUFS 7BOEFSMF	3FHJTL *OWFT \$PNQB  0UIFS 1PPMF *OWFT 7FIJDM  0UIFS "DDPVI	/POF	/POF
(SPXUI 1PSUGPMJP			
&WBO #BV	3FHJTL *OWFT \$PNQB  0UIFS	/POF	/POF



.BSHBSFU 7JUSBOP	3FHJTL *OWFT \$PNQB	/POF	/POF
	0UIFS 1PPMF *OWFT 7FIJDM	/POF	/POF
	0UIFS "DDPVI		
-BSHF \$BQ 7BMVF 1PSUGPMJP			
%NJUSZ ,IBZLJO	3FHJTL *OWFT \$PNQB		
	0UIFS 1PPMF *OWFT 7FIJDM	/POF	/POF
	0UIFS "DDPVI	/POF	/POF
%FFQPO /I	3FHJTL *OWFT \$PNQB		
	0UIFS 1PPMF *OWFT 7FIJDM		
	0UIFS "DDPVI		
%FFQPO '	\$PNQB		



.JDIBFM ,BHBO /POF  
4UFQIFO 3JHP /POF

%JWJEFOE 4USBUFHZ 1PSUGPMJP

+PIO #BMEJ /POF  
.JDIBFM \$MBSGFM /POF  
1FUFS 7BOEFSMF| /POF

(SPXUI 1PSUGPMJP

&WBO #BVNBO /POF  
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%NJUSZ ,IBZLJO /POF  
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.JE \$BQ 1PSUGPMJP

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.BUUIFX -JMMJOH /POF

4NBMM \$BQ (SPXUI 1PSUGPMJP

+FGGSFZ #BJMJO /POF  
"SBN & (SFFO /POF

\*U JT BOUJDJQBUFE UIBU .S (MBTTFS XJMM TUFQ EPXO BT  
%FDNCFS 5IFSFBGUFS .S (MBTTFS XJMM DPOUJOV  
\$MFBS#SJEHF \*OWFTUNFOUT --\$  
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\*U JT BOUJDJQBUFE UIBU .S #PVSCFBV XJMM TUFQ EPXO B1  
%FDNCFS

1PUFOUJBM \$POGMJDUT PG \*OUFSFTU  
\*O UIJT TVCTFDUJPO BOE UIF OFYU TVCTFDUJPO UJUMFE i1PSUGPMJ  
\$MFBS#SJEHF \*OWFTUNFOUT --\$

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SFTQPOTJCJMJJFT XJUI SFTQFDU UP POF PS NPSF PUIFS GVOET PS PU

5IFSF JT OP HVBSBOUFF IPXFWFS UIBU UIF QPMJDJFT BOE QSPDFEVSF  
BOE PS QSFWFOU FWFSZ TJUVBUJPO JO XIJDI BO BDUVBM PS QPUFOUJB

"MMPDBUJPO PG -JNJUFE 5JNF BOE "UUFOUJPO " QPSUGPMJP NBOBH  
BDDPVOUT NBZ EFWPUF VOFRVBM UJNF BOE BUUFOUJPO UP UIF NBOBHF  
DPOGMJDU NBZ CF NPSF QSPOPVODFE XIFSF GVOET BOE PS BDDPVOUT  
JOWFTUNFOU TUSBUFHJFT

"MMPDBUJPO PG \*OWFTUNFOU 0QQPSUVOJUJFT \*G B QPSUGPMJP NB  
NVMUJQMF GVOET BOE PS BDDPVOUT UIF PQQPSUVOJUZ NBZ CF BMMPD  
GVOE T BCJMJUZ UP UBLF GVMM BEWBOUBHF PG UIF JOWFTUNFOU PQQP  
UIBU BMM BDDPVOUT JODMVEJOH UIF 'VOE BSF USFBUFE FRVJUBCMZ

1VSTVJU PG %JGGFSJOH 4USBUFHJFT "U UJNFT B QPSUGPMJP NBOB  
BQQSPQSJBGF GPS POMZ TPNF PG UIF GVOET BOE PS BDDPVOUT GPS XI  
UIBU DFSUBJO PG UIF GVOET BOE PS BDDPVOUT TIPVME UBLF EJGGFSJC  
QPSUGPMJP NBOBHFS NBZ QMBDF TFQBSBUF USBOTBDUJPOT GPS POF P  
TFDVSJUZ PS UIF FYFDVUJPO PG UIF USBOTBDUJPOT PS CPUI UP UIF E

4FMFDUJPO PG #SPLFS %FBMFST \*O BEEJUJPO UP FYFDVUJJOH USBE  
BT UIPTF UFSNT BSF EFGJOFE JO 4FDUJPO F PG UIF "DU XIJDI  
NJHIU IBWF PUIFSXJTF CFFO BWBJMBCMF 5IFTF TFSWJDFT NBZ CF NPSF  
SFBTPO UIF 4VCBEWJTFS IBT GPSNFE B CSPLFSBHF DPNNJUUFF UIBU S  
CSPLFS EFBMFST CFTU FYFDVUJPO BOE TPGU EPMMBS VTBHF

7BSJBUJPO JO \$PNQFOTBUJPO " DPOGMJDU PG JOUFSFTU NBZ BSJTF  
NBOBHFS EJGGFS BNPOH UIF GVOET BOE PS BDDPVOUT UIBU IF PS TIF N  
UIF QFSDFOUBHF QBJE UP UIF 4VCBEWJTFS EJGGFST BNPOH GVOET BO  
NBOBFNFNU FFT PS QFSGPSNBODF CBTFE NBOBFNFNU FFT UIF QF  
BOE PS BDDPVOUT PWFS PUIFST

5IF QPSUGPMJP NBOBHFS NJHIU CF NPUJWBUFE UP GBWPS GVOET BO  
UIF NBOBHFS BOE PS JUT BGGJMJBUFF IBWF JOUFSFTUT 4JNJMBSMZ U  
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\$POTFRVFOUMZ QPSUGPMJP NBOBFHST DBO IBWF UXP UIJSET PG U  
NBOBHFE QSPEVDUT 'PS DFOUSBMJ[FE SFTFBSDI BOBMZTUT UXP U  
POF PG NPSF PG 4VCBEWJTFS T NBOBHFE GVOET XIJMF POF UIJSE  
4VCBEWJTFS UIFO NBLFT B DPNQBOZ JOWFTUNFOU JO UIF QSPQSJF  
5IJT JOWFTUNFOU JT B DPNQBOZ BTTFU IFME PO UIF CBMBODF TIFF  
WFTUJOH SFRVJSFNFOU

'SBOLMJO 3FTPVSDF 3FTUSJDUF 4UPDL %FGFSSBM%oB NBOEBUPSZ  
DPNQFOTBUJPO JOUP 'SBOLMJO 3FTPVSDF SFTUSJDUF TUPDL 5IF  
SFRVJSFNFOU

4FWFSBM GBDUPST BSF DPOTJEFSFE CZ UIF 4VCBEWJTFS T 4FOJPS  
GPS QPSUGPMJP NBOBFHST 5IFTF JODMVEF CVU BSF OPU MJNJUFE UP

\*OWFTRD RCBQUBLSPZSOUQESBUDPQPAWQSPZSDGFP MFB SNBIOBWES STFD BNIQ EOETBTU  
GVOE BDDPVOUT NBOBHFE CZ UIF QPSUGPMJP NBOBHFS \*OWFTUNF  
NFBTVSFE BHBJOTU UIF BQQMJDBC MF QSPEVDU CFODINBSL F H B  
TFU GPSUI JO UIF OÀ Đ à P BOE V

\*OEFQFOEFOU 3FHJTUF SFE 1VCMJD "DDPVOUJ OH 'JSN  
1SJDFXBUFSIPVTF\$PPQFST --1 &BTU 1SBUU 4USFFU 4VJUF  
JOEFQFOEFOU SFHJTUF SFE QVCMJD BDDPVOUJ OH GJSN

FDPOPNJD USFOET BOE QPSUGPMJP TUSBUFHZ NBSLFU RV PUBUJPOT GP  
TFSWJDFT \*G B SFTFBSDI TFSWJDF BMTP BTTJTUT UIF 4VCBEWJTFS JO  
BENJOJTUSBUJWF GVODUJPOT UIFO POMZ UIF QFSDFOUBHF PS DPNQPC  
EFDJTJPO NBLJOH QSPDFTT NBZ CF QBJE JO DPNNJTTJPO EPMMBST 5IJ  
USBOTBDUJPO PS UIF PWFSBMM SFTQPOTJCJMJJFT UIBU UIF 4VCBEWJT  
FYFSDJTF JOWFTUNFOU EJTDUFUJPO 5IF 4VCBEWJTFS NBZ BMTP IBWF B  
SFTFBSDI TFSWJDFT UP UIF 4VCBEWJTFS JO FYDIBOHF GPS B DFSUBJO V  
8IJMF UIF QBZNFOU PG IJHIFS DPNNJTTJPOT JODSFBTFT UIF 'VOE T DPT  
CSPLFSBHF BOE SFTFBSDI TFSWJDFT TJHOJGJDBOUMZ SFEVDFT JUT FYQ  
TFSWJDFT GSPN CSPLFST TP DBMMFE iTPGU EPMMBSw BSSBOHFNFOUT  
BVUIPSJ[FE UP VTF TPGU EPMMBS BSSBOHFNFOUT JO PSEFS UP PCUBJO  
NBZ OPU CF BCMF PS NBZ DIPPTF OPU UP VTF TPGU EPMMBS BSSBOHFN  
PS GPS PUIFS SFBDPOT

3FTFBSDI TFSWJDFT GVSOJTIFFE UP UIF 4VCBEWJTFS CZ CSPLFST U  
CZ UIF 4VCBEWJTFS JO TFSWJDJOH PUIFS JOWFTUNFOU DPNQBOJFT BOE  
TFSWJDFT GVSOJTIFFE UP UIF 4VCBEWJTFS CZ CSPLFST UIBU FGGFDU TF  
XIJDI UIF 4VCBEWJTFS NBOBHFT NBZ CF VTFE CZ UIF 4VCBEWJTFS JO TF  
CZ UIF 4VCBEWJTFS JO NBOBHJOH BOZ QBSUJDVMBS BDDPVOU JODMVE.

'JSNT UIBU QSPWJEFF SFTFBSDI BOE CSPLFSBHF TFSWJDFT UP UIF 4  
QPPMFE JOWFTUNFOU WFIJDMFT BEWJTFE CZ UIF 4VCBEWJTFS BOE UIF  
GPS EPJOH TP 4VDI CSPLFSBHF CVTJOFTT JT QMBDFE PO UIF CBTJT PC  
CBTFE PO BOZ TBMFT PG UIF 'VOE PS PUIFS QPPMFE JOWFTUNFOU WFIJ  
5IF 'VOE DPOUFNQMBUFT UIBU DPOTJTUFOUT XJUI UIF QPMJDZ PG P  
DPOEVDUFE UISPVHI iBGGJMJBUFF CSPLFS EFBMFST w BT EFGJOFE JO U  
BDDPSEBODF XJUI 3VMF F VOEFS UIF "DU UP FOTVSF UIBU BMM C  
BOE GBJS JO UIF DPOUFYU PG UIF NBSLFU JO XIJDI TVDI BGGJMJBUFF P  
'VOE EJE OPU QBZ BOZ CSPLFSBHF DPNNJTTJPO UP JUT BGGJMJBUFF

"HHSFHBUFF #SPLFSBHF \$PNNJTTJPOT 1BJE  
5IF UBCMF CFMPX TIPXT UIF BHHSFHBUFF CSPLFSBHF DPNNJTTJPOT

<p>'VOE _____ "QQSFDJBujpo 1P</p>	<p>'PS UIF 'JTDBM %FDFNCFS _____ "HHSFHBUFF #S \$PNNJTTJPOT</p>
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4IBSFIPMEFST XIP PXO PS NPSF PG UIF PVUTUBOEJOH WPUJOP T  
 iDPOUSPMw UIF 'VOE NBZ CF BCMF UP EFUFNSNJOF PS TJHOJGJDBOUMZ J  
 TIBSFIPMEFST 5IVT UIF 1BSUJDQBUJOH \*OTVSBODF \$PNQBOJFT MJTU  
 /FWFSUIFMFTT XJUI SFTQFDU UP BOZ 'VOE TIBSFIPMEFS NFFUJOH B 1B

UJNFMZ WPUJOH JOTUSVDUJPOT GSPN JUT DPOUSBDU PXOFST JO BDDPS  
BQQMJDBCMFBQDPOUSBDU JTTVFE CZ UIF JOTVSBDFO DPNQBOZ BOE UP U

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'SBOLMJO %JTUSJCUPST --\$ BO JOEJSFDU XIPMMZ PXOFE CSPLF  
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BHSFFNFOU BT BNFOEFE UIF i%JTUSJCUPST "HSFFNFOUw



QSPWJEFE \*O BEEJUJPO UIF %JTUSJCVUPS UIF .BOBHFS BOE PS DFSU  
CBTJT GPS UIF JOJUJBM TFU VQ PG UIF 'VOE PO B 4FSWJDF "HFOUT TZ  
PS GPS PUIFS SFBDTPOT 'VSUIFSNPSF UIF %JTUSJCVUPS UIF .BOBHFS  
BOE USBJOJOH DPTUT PG 4FSWJDF "HFOUT JODMVEJOH JO TPNF DBTFT  
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PUIFS UPPMT BOE TVQQPSU TFSWJDFT UIBU GBDJMJJUBUF UIF NBSLFUJO  
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JODMVEF UIPTF GJSNT XJUI XIJDI UIF .BOBHFS UIF %JTUSJCVUPS BOE F  
BSSBOHFNFOU



ZPVS 4FSWJDF "HFOU UP PCUBJO NPSF JOGPSNBUJPO PO IPX UIJT DPNQ  
SFDPNNFOEBUJPO PG UIF 'VOE

%FBMFS \$PNNJTTJPOT BOE \$PODFTTJPOT

'SPN UJNF UP UJNF UIF %JTUSJCUPS PS UIF .BOBHFS BU JUT FYC  
iDPODFTTJPOTw UP EFBMFST UIBU TFMM PS BSSBOHF GPS UIF TBMF PC  
JT QBSU 4VDI DPODFTTJPOT QSPWJEFE CZ UIF %JTUSJCUPS PS UIF .E  
XJUI QSFBQQSPWFE DPOGFSFODFT PS TFNJOBST TBMFT PS USBJOJOH G  
FNQMPZFFT QBZNFOU GPS USBWFM FYQFOTFT JODMVEJOH MPEHJOH J  
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TFQBSBUF BDDPVOU T PS RVBMJGJFE QMBO T SFEFNQUJPO GSPN UIF 'VOE  
UP EJTQPTF PG UIF 'VOE TIBSFT

7"-6"5\*0/ 0' 4)"3&4

5IF /"7 QFS TIBSF PG FBDI DMBTT PG UIF 'VOE JT HFOFSBMMZ DBMD  
Q N &BTUFSO UJNF PO FBDI EBZ PO XIJDI UIF /:4& JT PQFO "T PG UIF  
FWFSZ XFFLEBZ FYDFQU JO UIF FWFOU PG BO FNFSHFODZ PS GPS UIF G  
:FBST %BZ .BSUJO -VUIFS ,JOH +S %BZ 1SFTJEFOU %BZ (PPE 'SJE  
\*OEFQFOEOFODF %BZ -BCPS %BZ 5IBOLTHJWJOH %BZ BOE \$ISJTUNBT %B  
TQFDJGJD FYQFOTFT UIF QFS TIBSF /"7 PG FBDI DMBTT PG UIF 'VOE XJ  
UIF QSPDFEV SFT VTFE CZ UIF 'VOE JO WBMVJOH JUT BTTFUT

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5IF .BOBHFS EFMFHBUFT UP UIF 4VCBEWJTFS UIF SFTQPOTJCJMJUZ  
UIF 4VCBEWJTFS 5IF 4VCBEWJTFS NBZ VTF JUT PXO QSPYZ WPUJOH QPI  
#PBSE SFWJFXT BOE BQQSPWFT UIF VTF PG UIPTF QPMJDJFT BOE QSPDF  
WPUJOH SFTQPOTJCJMJUZ GPS UIF 'VOE

4IPVME UIF .BOBHFS CFDPNF SFTQPOTJCMF GPS WPUJOH QSPYJFT  
QSPWJEF JOWFTUNFOU BEWJTPSZ TFSWJDFT UIF .BOBHFS TIBMM VUJM  
4VCBEWJTFS UP WPUF QSPYJFT VOIJM B OFX TVCBEWJTFS JT SFUBJOFE  
CZ UIF #PBSE \*O UIF DBTF PG B NBUFSJBM DPOGMJDU CFUXFFO UIF JO  
QFSTPOT SFTQPOTJCMF GPS WPUJOH BU UIF .BOBHFS BOE BOZ GVOE U  
BEESETT UIF DPOGMJDU BOE PS IPX UP WPUF UIF QSPYJFT 5IF .BOBHFS  
BQQMJDBCMFT FDFVSJUJFT MBXT BOE SFHVMBUJPOT

5IF .BOBHFS TIBMM CF SFTQPOTJCMF GPS HBUIFSJOH SFMFWBOUT  
4VCBEWJTFS BOE QSPWJEJOH UIFN UP UIF 'VOE BT SFRVJSFE GPS UIF 'V  
.BOBHFS TIBMM BMTP CF SFTQPOTJCMF GPS DPPSEJOBUIJOH UIF QSPWJ

QFSTPOOFM UIBU BSF OPU GVOE BGGJMJBULE QFSTPOOFM J VQPO UIF  
QSPWJEFE UIBU TVDI GJMJOHT BSF OPU NBEF VOIJM DBMFOEBS EBZT  
SFQPSU PS JJ OP TPPOFS UIBO CVTJOFTT EBZT BGUFS NPOUI FOE Q  
QVCMJD EJTDMPPTVSF 5ZQJDBMMZ QVCMJD EJTDMPPTVSF JT BDIJFWFE C  
'VOE T \*OUFSOFU TJUF UIBU JT BDDFTTJCMF CZ UIF QVCMJD PS UISPVH

5IF 'VOE DVSSFOUMZ EJTDMPPTFT JUT DPNQMFUF QPSUGPMJP IPMEJ  
JOGPSNBUJPO PO UIF 'VOE T XFCTJUF XXX GS BOLMJOUFNQMFUPO DPN

OOHPJOH "SSBOHFNFOUT

6OEFS UIF QPMJDZ UIF 'VOE NBZ SFMF BTF QPSUGPMJP IPMEJOHT J  
GVOE BDDPVOUJ OH BHFOU QSPYZ WPUJOH QSPWJEFS SBUJOH BHFO DZ  
XIFSF UIF QBSUZ SFDFJWJOH UIF JOGPSNBUJPO JT VOEFS B EVUZ PG DF  
JOGPSNBUJPO XJUI VOBVUIPSJ[FE TPVSDFT BOE USBEJOH VQPO OPO QV

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,BJMBTI \$PODFQUT	.POUIMZ	/POF
.JEEMF 0GGJDF 4PMVUJPOT --	%BJMZ	/POF
.PSHBO 4UBOMFZ \$BQJUBM *O	%BJMZ	/POF
.PSOJOHTUBS	%BJMZ	/POF
/BWJ4JUF *OD	%BJMZ	/POF
4UBS\$PNQMJBODF	%BJMZ	/POF
4UBUF 4USFFU #BOL BOE 5SVT	%BJMZ	/POF
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4VO(BSE 1SPUFHFOU GPSNFS	%BJMZ	/POF
5IF #BOL PG /FX :PSL .FMMPO	%BJMZ	/POF
5IF /PSUIFSO 5SVTU \$PNQBOZ	%BJMZ	/POF
5IF /PSUIFSO 5SVTU .FMCPVSC	%BJMZ	/POF
5IPNTPO	4FNJ BOOVE	/POF
5IPNTPO 3FVUFST	%BJMZ	/POF
71% 'JOBODJBM 4PGUXBSF \$PC	%BJMZ	/POF
8JMTIJSF "OBMZUJDT "YJPN B	%BJMZ	/POF

1PSUGPMJP IPMEJOHT JOGPSNBUJPO GPS UIF 'VOE NBZ BMTP CF SF  
XJUI UIF GPMPXPXJOH QBSUJFT

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#SPBESJEHF	%BJMZ	/POF
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(MBTT -FXJT \$P	%BJMZ	/POF
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4VO5SVTU

8FFLMZ 5VF #VTJOFTT %BZ  
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&YDMVEFE GSPN UIF MJTUT PG POHPJOH BSSBOHFNFOUT TFU GPSU  
EJTDMPPTVSF PG QPSUGPMJP IPMEJOHT JOGPSNBUJPO PDDVST DPODVSS  
JT JODMVEFE JO B QVCMJD GJMJOH XJUI UIF 4&\$ UIBU JT SFRVJSFE UP  
JOGPSNBUJPO JT NBEF BWBJMBCMF OP FBSMJFS UIBO UIF EBZ OFYU GP  
PO JUT XFCTJUF BT EJTDMPPTFE JO UIF 'VOE T 1SPTQFDUVT 5IF BQQSP  
PCUBJOFE CFGPSF FOUFSJOH JOUP BOZ OFX POHPJOH BSSBOHFNFOU PS  
QPSUGPMJP IPMEJOHT JOGPSNBUJPO PS XJUI SFTQFDU UP BOZ FYDFQU

3FMFBTF PG -JNJUFE 1PSUGPMJP )PMEJOHT \*OGPSNBUJPO  
\*O BEEJUJPO UP UIF POHPJOH BSSBOHFNFOUT EFTDSJCFC BCPWF  
PG QPTJUJPOT NBZ CF SFMFBTFE UP BOPUIFS QBSUZ PO B POF UJNF CE  
OPO EJTDMPPTVSF BOE DPOGJEFOUJBmjuz BHsFFNFOU BOE QSPWJEFE U  
'VOE T \$IJFG \$PNQMJBODF 0GGJDFS PS EFTJHOFF BT DPOTJTUFou XJUI  
OPO QVCMJD JOGPSNBUJPO BCPVU UIF 'VOE T QPSUGPMJP IPMEJOHT NB  
PUIFS JOWFTUNFOU NBOBHFS BTLFE UP QSPWJEF JOWFTUNFOU NBOBHFI

-JNJUBUJPOT PG 1PMJDZ

5IF 'VOE T QPSUGPMJP IPMEJOHT QPMJDZ JT EFTJHOFE UP QSFWFOP  
OP MFHJUJNBUF CVTJOFTT QVSQPTF GPS BDDFTTJOH UIF JOGPSNBujpo

4IBSFIPMEFS 7PUJOH

6OEFS UIF %FDMBSBUJPO UIF 5SVTUFFT IBWF CSPBE BVUIPSJUZ U  
QSPWJEFT GPS TIBSFIPMEFS WPUJOH BT SFRVJSFE CZ UIF "DU PS P  
.BSZMBOE MBX BDUJPOT CZ UIF 5SVTUFFT XJUIPVU TFFLJOH UIF DPOTF  
BNFOE UIF %FDMBSBUJPO PS BVUIPSJ[F UIF NFSHFS PS DPOTPMJEBUJPC  
BOZ TFSJFT PS DMBTT JOUP BOPUIFS USVTU PS FOUJUZ PS B TFSJFT PS  
5SVTU PS BOZ TFSJFT PS DMBTT UP BOPUIFS FOUJUZ PS B TFSJFT PS D  
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BQQSPWBM

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XFJHIUFE WPUJOHw XIJDI NFBOT UIBU B TIBSFIPMEFS T WPUJOH QPXF

4NBMM "DDPVOUT

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BDDPVOU JG UIF BDDPVOU GBMMT CFMPX B NJOJNVN BDDPVOU TJ[F XIJ  
UJNF "MUFSOBUFMZ UIF %FDMBSBUJPO QFSNJUT UIF 'VOE UP BTTFTT B  
TIBSFT JO UIF BDDPVOU UP DPWFS TVDI GFFT PS DPOWFSU UIF TIBSFT

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5IF %FDMBSBUJPO QSPWJEFT UIBU UIF 5SVTUFFT NBZ FTUBCMJTI T  
BOE UIBU UIF 5SVTUFFT NBZ EFUFSENJOF UIF SJHIUT BOE QSFGFSFODFT  
PXOFSTIJQ DPOWFSTJPO BOE FYDIBOHF GFBUVSFT NJOJNVN QVSDIBTF



Z JO UIF TFDVSJUJFT PUIFS UIBO UIF TFDVSJUJFT PG PUIFS SFHVMBU  
DPOUSPMT BOE UIBU BSF USFBUFE BT FOHBHFE JO UIF TBNF TJNJMBS  
NPSF iRVBMJGJFE QVCMJDMZ USBEFE QBSUOFSTIJQT w XIJDI HFOFSBMM

\*O HFOFSBM GPS QVSQPTFT PG UIF HSPTT JODPNF UFTU EFTDS

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SFTQFDU UP GUVVSF QBZNFOUT PO TVDI TXBQT PS NBZ FMFDU VOEFS D  
UBY QVSQPTFT BT PSEJOBSZ JODPNF PS MPTT

"OZ JOWFTUNFOUT CZ UIF 'VOE JO TP DBMMFE iTFDUJPO DPOUS  
DVSSFODZ GPSXBSE DPOUSBDUT USBEFE JO UIF JOUFSCBOL NBSLFU BO  
"OZ TFDUJPO DPOUSBDUT IFME CZ UIF 'VOE BU UIF FOE PG JUT UBYE  
MBUFS EBUFT BT QSFTDSJCFC VOEFS UIF \$PEF BSF SFRVJSFE UP CF NB  
UIPTF QPTJUJPOT XJMM CF JODMVEFE JO UIF 'VOE T JODPNF BT JG FB  
UBYBCMF ZFBS 5IF SFTVMUJOP HBJO PS MPTT XJMM CF DPNCJOFE XJUI  
DPOUSBDUT DMPTFE EVSJOPH UIF UBYBCMF ZFBS 1SPWJEFE TVDI QPTJU  
USBOTBDUJPOw OPS QBSU PG B iTUSBEEMF w PG UIF SFTVMUJOP OFU  
PG TVDI OFU HBJO PS MPTT XJMM CF USFBUFFE BT TIPSU UFSN DBQJU  
BDUVBMMZ IFME CZ UIF 'VOE

\*O HFOFSBM PQUJPO QSFNVNT SFDFJWFE CZ UIF 'VOE BSF OPU J  
QSFNVNT BSF SFDPHOJ[FE XIFO UIF PQUJPO DPOUSBDU FYQJSFT UIF P  
PUIFSXJTF UFSNJOBUT UIF PQUJPO F H UISPVHI B DMPTJOH USBOTBD  
TFMMT PS EFMJWFST UIF VOEFSMZJOPH TFDVSJUZ UIF 'VOE HFOFSBMMZ  
BOE UIF PQUJPO QSFNVNT SFDFJWFE CZ UIF 'VOE NJOVT C UIF 'VOE T  
UFSN PS MPOH UFSN EFQFOEJOH VQPO UIF IPMEJOH QFSJPE PG UIF VOE  
UP UIF FYFSDJTF PG B QVU PQUJPO XSJUUFO CZ JU UIF 'VOE HFOFSB  
DPTU CBTJT JO UIF TFDVSJUJFT QVSDIBTFE (BJO PS MPTT BSJTJOH JO  
PUIFS UIBO UISPVHI UIF FYFSDJTF PG UIF PQUJPO XJMM CF TIPSU UFSN  
CZ UIF 'VOE JT HSFBUFFS PS MFTT UIBO UIF BNPVOU QBJE CZ UIF 'VOE  
PQUJPO XSJUUFO CZ UIF 'VOE FYQJSFT VOFYFSDJTFE UIF 'VOE HFOFSB

\*O HFOFSBM HBJO PS MPTT PO B TIPSU TBMF JT SFDPHOJ[FE XIFO  
UP UIF MFOEFS OPU XIFO UIF CPSSPXFE QSPQFSUZ JT TPME (BJO PS M  
MPTT UP UIF FYUFQOU UIBO UIF QSPQFSUZ VTFE UP DMPTF UIF TIPSU TBM  
SFTQFDU UP DFSUBJO TJUVBUJPOT XIFSF UIF QSPQFSUZ VTFE CZ UIF 'V  
PG UIF TIPSU TBMF TQFDJBM SVMFT HFOFSBMMZ USFBU UIF HBJOT PO T  
UFSNJOBUF UIF SVOOJOH PG UIF IPMEJOH QFSJPE PG iTVCTUBOJBMMZ  
TBMF XJMM CF USFBUFFE BT B MPOH UFSN DBQJUBM MPTT JG PO UIF EB  
CZ UIF 'VOE GPS NPSF UIBO POF ZFBS

5IF 'VOE NBZ QVSDIBTF EFCU PCMJHBUJPOT XJUI PSJHJOBM JTTVF  
4PNF EFCU PCMJHBUJPOT XJUI B GJYFE NBUVSJUZ EBUF PG NPSF UIBO  
PCMJHBUJPOT XJUI B GJYFE NBUVSJUZ EBUF PG NPSF UIBO POF ZFBS G  
BSF JTTVF XJUI 0\*% (FOFSBMMZ UIF BNPVOU PG UIF 0\*% JT USFBUFFE  
BDDPSEJOHMZ SFRVJSFE UP CF EJTUSJCVUF CZ UIF 'VOE PWFS UIF U  
SFDFJWFE VOUJM B MBUFS UJNF VTVBMMZ XIFO UIF EFCU TFDVSJUZ NB  
JOGBUJPO JOEFYFE CPOET BMTP NBZ CF USFBUFFE BT 0\*% UIBO JT JOD

4PNF EFCU PCMJHBUJPOT XJUI B GJYFE NBUVSJUZ EBUF PG NPSF U  
UIF TFDPOEBSZ NBSLFU NBZ CF USFBUFFE BT IBWJOH iNBSLFU EJTDPOU  
SFEFNQUJPO QSJDF PG B EFCU PCMJHBUJPO PS JO UIF DBTF PG BO PCI  
QSJDF PG TVDI PCMJHBUJPO 6OEFS UIF \$PEF J HFOFSBMMZ BOZ HBJ  
QSJODJQBM PO B EFCU TFDVSJUZ IBWJOH NBSLFU EJTDPOU JT USFBUFFE  
EPFT OPU FYDFFE UIF iBDDSVFE NBSLFU EJTDPOUw PO TVDI EFCU TFD  
EJTDPOU DVSSFOUMZ JO XIIDI DBTF UIF 'VOE XJMM CF SFRVJSFE UP  
PSEJOBSZ JODPNF BOE UIVT EJTUSJCVUF JU PWFS UIF UFSN PG UIF E  
VOUJM B MBUFS UJNF VQPO QBSUJBM PG GVMM SFQBZNFOU PS EJTQPT  
EJTDPOU DVSSFOUMZ UIF SBUF BU XIIDI UIF NBSLFU EJTDPOU BDDSV  
XIIDI PG UIF QFSNJJUFE BDDSVBM NFUIPET UIF 'VOE FMFDUT

4PNF EFCU PCMJHBUJPOT XJUI B GJYFE NBUVSJUZ EBUF PG POF ZF

B SFGVOE JO SFTQFDU PG TVDI UBYFT JU NBZ DIPPTF OPU UP 5BY DPO  
SFEVDF PS FMJNJOBUF TVDI UBYFT JO TPNF DBTFT 5IF 'VOE EPFT OPU  
TIBSFIPMEFST XIP UIFSFGPSF XJMM OPU CF FOUJUMFE UP DSFEJUT PS  
'VOE 'PSFJHO UBYFT QBJE CZ UIF 'VOE NBZ SFEVDF UIF SFUVSO GSPN

60EFS DFSUBJO DJSDVNTUBODFT JG UIF 'VOE SFDFJWFT B SFGVOE  
'VOE TIBSFT DPVME CF BGGFDUFE PS BOZ GPSFJHO UBY DSFEJUT PS EF  
GPSFJHO UBYFT GPS UIF DVSSFOU ZFBS DPVME CF SFEVDDE

60EFS 4FDUJPO PG UIF \$PEF HBJOT PS MPTTFT BUUSJCVCUBCMF  
'VOE BDDSVFT JODPNF PS SFDFJWBCMF PS FYQFOTFT PS PUIFS MJBCJM  
BDUVBMMZ DPMMFDUT TVDI JODPNF PS QBZT TVDI MJBCJMJJUJFT BSF HF  
MPTTFT PO GPSFJHO DVSSFODZ GPSFJHO DVSSFODZ GPSXBSE DPOUSBD  
EJTQPTJUJPO PG EFCU TFDVSJUJFT EFOPNJOBUFFE JO GPSFJHO DVSSFODZ  
CFUXFFO UIF BDRVJUJPO BOE EJTQPTJUJPO EBUFT BSF BMTP USFBUF  
PUIFSXJTF

1BTTJWF 'PSFJHO \*OWFTUNFOU \$PNQBOJFT \*G UIF 'VOE QVSDIBTFT  
FRVJUZ JOUFSFTUT JO GPSFJHO FOUJUJFT USFBUFFE BT 1'\*\$T GPS 6 4  
FMFDUJPOT JU NBZ CF TVCKFDU UP 6 4 GFEFSBM JODPNF UBY PO B QP  
TVDI TIBSFT FWFO JG TVDI JODPNF JT EJTUSJCVCUFE BT B UBYBCMF EJW  
OBUVSF PG JOUFSFTU NBZ CF JNQPTFE PO UIF 'VOE JO SFTQFDU PG EFC

\*O HFOFSBM B 1'\*\$ JT BOZ GPSFJHO DPSQPSBUJPO JO XIJDI J  
JODPNF PS JJ UIF BWFSBHF QFSDFOUBHF PG UIF BTTFUT HFOFSBMMZ  
PS BSF IFME GPS UIF QSPEVDUJPO PG QBTTJWF JODPNF JT BU MFBTU  
JOUFSFTU JODMVEJOH JODPNF FRVJWBMFOU UP JOUFSFTU SPZBMUJF  
USBOTBDUJPOT BOE DPNNPEJUJFT USBOTBDUJPOT JODPNF GSPN DFSUE  
JODPNF GPS UIJT QVSQPTF EPFT OPU JODMVEF DFSUBJO UZQFT PG QBT

\*G UIF 'VOE XFSF UP JOWFTU JO B 1'\*\$ BOE UJNFMZ FMFDU UP USF  
UIF GJSTU ZFBS PG JUT IPMEJOH QFSJPE JO UIF 1'\*\$ TUPDL JO MJFV PO  
JODMVEF JO JODPNF FBDFI ZFBS B QPSUJPO PG UIF PSEJOBSZ FBSOJOHT  
EJTUSJCVCUFE UP UIF 'VOE 5IF 'VOE NJHIU IBWF UP EJTUSJCVCUFE TVDI B  
JNQPTJUJPO PG UIF FYDJTF UBY \*O PSEFS UP EJTUSJCVCUFE UIJT JODF  
MJRVJEBUF QPSUGPMJP TFDVSJUJFT UIBU JU NJHIU PUIFSXJTF IBWF DP  
MPTT \*O PSEFS UP NBLF UIF iRVBMJGJFE FMFDUJOPH GVOEw FMFDUJPO  
GSPN UIF 1'\*\$T JO XIJDI JU JOWFTUT XIJDI NBZ CF EJGGJDVMU PS JNQ

\*G UIF 'VOE XFSF UP JOWFTU JO B 1'\*\$ BOE NBLF B NBSL UP NBSLF  
SFQVSDIBTFT JUT TUPDL JO UIBU 1'\*\$ BU UIF FOE PG FBDFI ZFBS \*O TVD  
BOE XPVME EFEVDU BOZ TVDI MPTTFT BT PSEJOBSZ MPTTFT UP UIF FYU  
TFQBSBUFMZ GPS FBDFI 1'\*\$ PXOFE CZ UIF 'VOE BOE PODF NBEF XPVME  
VOMFTT SFWPLFE XJUI UIF DPOTFOU PG UIF \*34 #Z NBLJOPH UIF FMFDUJ  
DPOTFRVFODFT XJUI SFTQFDU UP JUT PXOFSTIJQ PG TIBSFT JO B 1'\*\$  
JO FYDFTT PG UIF EJTUSJCVCUJPO JU SFDFJWFT GSPN 1'\*\$T BOE JUT Q  
EJTUSJCVCUFE TVDI FYDFTT JODPNF BOE HBJO UP TBUJTGZ UIF EJTUSJC  
\*O PSEFS UP EJTUSJCVCUFE UIJT JODPNF BOE BWPJE B UBY BU UIF 'VOE M  
UIBU JU NJHIU PUIFSXJTF IBWF DPOUJOVFE UP IPME QPUFOUJBMMZ SFT

.-1T

.-1T BSF HFOFSBMMZ USFBUFFE BT QBSUOFSTIJQT GPS 6 4 GFEFSBM  
QBSUOFSTIJQ GPS 6 4 GFEFSBM JODPNF UBY QVSQPTFT JT OPU JUTFMG

EJTUSJCVUJPOT CFJOH USFBUFE BT EJWJEFOET UP UIF FYUFOU PG FBSC  
JOWFTUNFOU

\*G UIF 'VOE JOWFTUT JO BO .-1 UIF 'VOE XJMM CF SFRVJSFE UP J  
FBDI JUFN PG UIF .-1 T JODPNF HBJO MPTT BOE EFEVDUJPO GPS FBDI  
UBYBCMF ZFBS SFHBSEMFETT PG XIFUIFS UIF .-1 EJTUSJCVUFT DBTI UP U  
EFUFSNJOJOH XIFUIFS UIF 'VOE IBT TBUJTGJFE UIF EJTUSJCVUJPOT SFRV  
UIF \$PEF 5IF 'VOE NBZ BT B SFTVMU CF SFRVJSFE UP TFMM JOWFTUNFO  
OPU BEWBOUBHFPVT UP EP TP

" DBTI EJTUSJCVUJPOT GSPN B QBSUOFSTIJQ JT OPU JUTFMG UBYBC  
CBTJT JO JUT QBSUOFSTIJQ JOUFSFTU BOE JT USFBUFE BT DBQJUBM H  
CBTJT JO UIF QBSUOFSTIJQ \$BTI EJTUSJCVUJPOT JG BOZ UIBU UIF 'VO  
BO .-1 NBZ FYDFFE UIF OFU UBYBCMF JODPNF BMMPDBUFE UP UIF 'VOE  
BNPSUJ[BUJPO BOE EFQMFUJPO UIBU BSF BMMPDBUFE UP UIF 'VOE CZ U

%FQSFJDJBujpo PS PUIFS DPTU SFDPWFSZ EFEVDUJPOT QBTTFE UIS  
XJMM HFOFSBMMZ SFEVDF UIF 'VOE T DVSSFOU UBYBCMF JODPNF CVU U  
NPSF TVCTFRVFou ZFBST VQPO UIF 'VOE T EJTQPTJUJPO PG JUT JOUFSI  
XJMM HFOFSBMMZ CF UBYBCMF UP TIBSFIPMEFST BU UIF UJNF PG UIF E  
TIBSFIPMEFST NJHIU OPU IBWF IFME TIBSFT JO UIF 'VOE BU UIF UJNF UI  
TIBSFIPMEFST XJMM OPU IBWF DPSSFTQPOEJOH FDPOPND HBJO PO UIF  
SFDBQUVSF JODPNF PS UP GVOE SFEFNQUJPO SFRVFTUT UIF 'VOE NBZ  
BEWBOUBHFPVT UP EP TP XIJDI NBZ JO SFUVSO SFTVMU JO UIF SFDPHO

/PO DPSQPSBUF UBYQBZFST BSF HFOFSBMMZ FMJHJCMF GPS B EFE  
QBSUOFSTIJQ JODPNF w 4VCKFDU UP BOZ GVUVSF HVJEBODF UP UIF DPC  
SFTQFDU PG JODPNF BMMPDBUFE UP JU CZ BOZ .-1T PS PUIFS QVCMJDM  
PTUFOTJCMZ XJMM OPU CF BCMF UP DMBJN TVDI B EFEVDUJPO JO SFTQ

/P \$BQJUBM -PTT \$BSSZGPSXBSET

"T PG %FDFNCFS "QQSFJDJBujpo 1PSUGPMJP %JWJEFOE 4U  
1PSUGPMJP -BSHF \$BQ 7BMVF 1PSUGPMJP .JE \$BQ 1PSUGPMJP BOE 4N

5BYBUJPO PG /PO 6 4 4IBSFIPMEFST

6OEFS MFHJTMBUJPO DPNNPOMZ LOPXO BT i'"5\$" w UIF 'VOE JT SFR  
QBZT UP TIBSFIPMEFST UIBU GBJM UP NFFU QSFTDSJCFE JOGPSNBUJPO  
XJUIIPMEJOH XJMM CF SFRVJSFE XJUI SFTQFDU UP B 6 4 QFSTPO PS OF  
CZ UIF 'VOE PS JUT BHFOU PO B WBMJE \*34 'PSN 8 PS BQQMJDBCM \*3  
XJUIIPMEJOH JODMVEF GPSFJHO GJOBODJBM JOTUJUVUJPOT i'"\*Tw TV  
i'"&Tw 5P BWPJE XJUIIPMEJOH VOEFS "5\$" BO ''\* HFOFSBMMZ NVTU F  
XIJDI JU BHSFFT UP SFQPSU DFSUBJO JEFOUJGZJOH JOGPSNBUJPO JOD  
SFTQFDU UP JUT 6 4 BDDPVOU IPMEFST XIJDI JO UIF DBTF PG BO FO  
BOE BO /''& HFOFSBMMZ NVTU JEFOUJGZ BOE QSPWJEF PUIFS SFRVJSFE  
6 4 PXOFST JG BOZ 4VDI OPO 6 4 TIBSFIPMEFST BMTP NBZ GBMM JOU  
FTUBCMJTI FE CZ SFHVMBUJPOT BOE PUIFS HVJEBODF " OPO 6 4 TIBSF  
BHSFFNFou XJUI UIF 6 4 UP JNQMNFou "5\$" XJMM CF FYFNQU GSPN "  
BQQMJDBCM GPSFJHO HPWFSONFOU DPNQMZ XJUI UIF UFSNT PG TVDI E



<5IJT QBHF JOUFOUJPOBMMZ MFGU CMBOL

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\* 5 Z Q F T P G " D D P V O U T G P S 8 I J D I \$ M F B S # S J E H F 7 P U F T 1 S P Y J F T



\$MFBS#SJEHF T GJOBODF BSFB NBJOUBJOT BOE QSPWJEFT UP  
VQ UP EBUF MJTU PG BMM DMJFOU SFMBUJPOTIJQT UIBU IBWF  
HSFBUFS UIBO PG \$MFBS#SJEHF T OFU SFWFOVFT

"T B HFOFSBM NBUUFS \$MFBS#SJEHF UBLFT UIF QPTJUJPO UI  
VOJU BOE BO JTTVFS F H JOWFTUNFOU NBOBHFNFU SFMBU  
'SBOLMJO BGGJMJBDF EP OPU QSFTFOU B DPOGMJDU PG JOUF  
JTTVFS CFDBVTF \$MFBS#SJEHF PQFSBUFT BT BO JOEFQFOEOF  
CFDBVTF PG UIF FYJTUFODF PG JOGPNBUJPOBM CBSSJFST CF  
VOJUT "T OPUME BCPWF \$MFBS#SJEHF FNQMPZFFT BSF VOEF  
JODMVEJOH DPOGMJDUT PG JOUFSFTU XIIDI NBZ BSJTF CFDBV  
OPO \$MFBS#SJEHF 'SBOLMJO PGGJDFS PS FNQMPZFF UP JOGM  
\$MFBS#SJEHF \$PNQMJBODF

" MJTU PG JTTVFST XJUI SFTQFDU UP XIIDI \$MFBS#SJEHF IBT  
CFIBMG PG DMJFOU BDDPVOUT XJMM CF NBJOUBJOFE CZ \$MFBS  
QSPYJFT SFMBUJOH UP TVDI JTTVFST VOUJM JU IBT CFFO EFU  
NFUIPE GPS SFTPMWJOH UIF DPOGMJDU PG JOUFSFTU IBT CFF  
\*7 CFMPX

# 1SPDFEVSFT GPS "TTFTTJOH .BUFSJBMJUZ PG \$POGMJDUT P  
\$POGMJDUT PG \*OUFSFTU

\$MFBS#SJEHF NBJOUBJOT B 1SPYZ \$PNNJUUFF XIIDI BNPOH P  
JOUFSFTU CSPVHIU UP JUT BUUFOUJPO 5IF 1SPYZ \$PNNJUUFF  
PUIFST BU \$MFBS#SJEHF T SFRVFTU BT BSF EFTJHOBUE GS  
\$PNNJUUFF BSF TFU GPSUI JO UIF 1SPYZ \$PNNJUUFF T 5FSNT

"MM DPOGMJDUT PG JOUFSFTU JEFOUJGJFE QVSTVBOU UP UIF  
BUUFOUJPO PG UIF 1SPYZ \$PNNJUUFF GPS SFTPMVUJPO " QSF  
\$MFBS#SJEHF QPTJUJPO PO TVDI JTTVF PS JO BDDPSEBODF XJ  
HFOFSBMMZ JT OPU CSPVHIU UP UIF BUUFOUJPO PG UIF 1SPYZ  
\$MFBS#SJEHF T QPTJUJPO JT UIBU BOZ DPOGMJDU PG JOUFSFT  
EFUFSNJOFE QPMJDZ PS JO BDDPSEBODF XJUI UIF SFDPNNFOE

5IF 1SPYZ \$PNNJUUFF XJMM EFUFSNJOFE XIFUIFS B DPOGMJDU  
DPOTJEFSFE NBUFSJBM UP UIF FYUFOU UIBU JU JT EFUFSNJOFE  
JOGMVFODF \$MFBS#SJEHF T EFDJTJPO NBLJOH JO WPUJOH UI  
BO BTTFTTNFOU PG UIF QBSUJDVMBS GBDUT BOE DJSDVNTUBO  
NBEF CZ UIF 1SPYZ \$PNNJUUFF XJMM CF NBJOUBJOFE

\*G JU JT EFUFSNJOFE CZ UIF 1SPYZ \$PNNJUUFF UIBU B DPOGMJDU  
QSPYJFT OPUXJUITUBOEJOH UIF FYJTUFODF PG UIF DPOGMJDU

\*G à ðE ðñ P d ñP` P` 0 à 0 ðp ð`` ðñ P ð@ ` ITUB „ ðP ð@ 0 • @

BO BTTdP` EY•I JdP@ ð` 0 0 0 PJ€``` ðñ! ñIBU TVD à PP`` €• @• ð à ð 0

TVDI PUIFS NFUIPE BT JT EFFNFE BQQSPQSJBGF HJWFO UIF  
JNQPSUBODF PG UIF QSPYZ JTTVF\* UIF OBUVSF PG UIF DPOC  
" XSJUUFO SFDPSE PG UIF NFUIPE VTFE UP SFTPMWF B NBUFSJBM DP  
\$ 5IJSE 1BSUZ 1SPYZ 7PUJOH 'JSN \$POGMJDUT PG \*OUFSFTU  
8JUI SFTQFDU UP B UIJSE QBSUZ QSPYZ WPUJOH GJSN EFTDSJCF  
BTTFTT TVDI GJSN T QPMJDJFT QSPDFEVTS BOE QSBDUJDFT XJ  
JOUFSFTU

7 705\*/( 10-\*\$:  
5IFTF BSF QPMJDZ HVJEFMJOFT UIBU DBO BMXBZT CF TVQFSTFEFE TY  
CFOFGJDJB M PXOFST PG BDDPVOUT CZ UIF JOWFTUNFOU NBOBFNF  
CFJOH WPUFE 5IFSF NBZ CF PDBBTJPOT XIFO EJGGFSFOU JOWFTUNFO  
UIF DBTF PG 5BGU )BSUMFZ DMJFOUT \$MFBS#SJEHF XJMM DPNQMZ X  
\*OTUJUVUJPOBM 4IBSFIPMEFS 4FSWJDFT \*44 174 1SPYZ 7PUJOH (VJ  
\$\*0 HVJEFMJOFT

" &MFDUJPO PG %JSFDUPST  
7PUJOH PO %JSFDUPS /PNJOFFT JO 6ODPOUFTUFE &MFDUJPO  
B 8F XJUIIPME PVS WPUF GSPN B EJSFDUPS OPNJOFF XI  
BUUFOEFE MFTT UIBO QFSDFOU PG UIF DPNQBOZ T  
WBMJE FYDVTF JMMOFTT TFSWJDF UP UIF OBUJPO M  
DPNQBOZ  
SFDFJWFE NPSF UIBO QFSDFOU XJUIIFME WPUFT P  
FMFDUJPO BOE UIF DPNQBOZ IBT GBJMFE UP BEESFT  
JT B NFNCFS PG UIF DPNQBOZ T BVEJU DPNNJUUFF  
UP UIF BVEJUPS PS UIFSF BSF DISPOJD DPOUSPM JT  
DPOUSPM NFDIBOJTNT  
JT B NFNCFS PG UIF DPNQBOZ T DPNQFOTBUJPO DPN  
JHOPSF B TBZ PO QBZ QSPQPTBM UIBU B NBKPSJUZ P  
JT B NFNCFS PG UIF DPNQBOZ T OPNJOBUIJH DPNNJ  
UIF CPBSE PS UIPTF DVSSFOUMZ QSPQPTFE GPS FM  
DSJUFSJPO  
JT B NFNCFS PG UIF DPNQBOZ T OPNJOBUIJH DPNNJ  
EJWFSTJUZ PO UIF CPBSE PS UIPTF DVSSFOUMZ QSP  
UIBU DSJUFSJPO

C 8F WPUF PO B DBTF CZ DBTF CBTJT JO UIF GPMMPXJO  
4JHOJGJDBOU (SFFOIPVTF (BT ()( &NJUUFST o 8F X  
UIF CPBSE BOE UIF \$IBJS PG UIF SFTQPOTJCMF DPN  
() FNJUUFST JO DBTFT XIFSF UIF DPNQBOZ JT OPU U  

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&TQFDJBMMZ JO UIF DBTF PG BO BQQBSFOU BT PQQPTFE UP BDUVBM  
PG JOUFSFTU CZ TBUJTGZJH JUTFMG UIBU \$MFBS#SJEHF T QSPQPTFE  
OPU CFJOH JOGMVFODFE CZ UIF DPOGMJDU PG JOUFSFTU  
5IJT QPTJUJPO POMZ BQQMJFT UP "OHMP NBSLFUT XIJDI JT EFGJOFE B



B 4VCKFDU UP TVCQBSBHSBQIT BOE CFMPX XF WPUP  
JOEFNOJGJDBUJPO BOE MJBCJMJUZ QSPUFDUJPO

C 8F WPUF GPS QSPQPTBMT UP MNJNU BOE BHBJOTU QSPQ  
MJBCJMJUZ GPS NPOFUBSZ EBNBHFT GPS WJPMBUJOH UIF

D 8F WPUF BHBJOTU JOEFNOJGJDBUJPO QSPQPTBMT UIBU  
UP BDUT TVDI BT OFHMJHFODF UIBU BSF NPSF TFSJPVT  
DBSFMFTTOFTT

E 8F WPUF GPS POMZ UIPTF QSPQPTBMT UIBU QSPWJEF TV  
BCPWF JO DBTFT XIFO B EJSFDUPSht PS PGGJDFShT MFH  
GPVOE UP IBWF BDUFE JO HPPE GBJUI BOE JO B NBOOFS  
JOUFSFTUT PG UIF DPNQBOZ BOE JG POMZ UIF EJSFDU  
%JSFDUPS 2VBMJGJDBUJPOT

B 8F WPUF DBTF CZ DBTF PO QSPQPTBMT UIBU FTUBCMJTI  
JODMVEF IPX SFBTPOBCMF UIF DSJUFSJB BSF BOE UP XIB  
GSPN KPJOJOH UIF CPBSE

C 8F WPUF BHBJOTU TIBSFIPMEFS QSPQPTBMT SFRVJSJOH

# 1SPYZ \$POUFTUT  
7PUJOH GPS %JSFDUPS /PNJOFFT JO \$POUFTUFE &MFDUJPO

8F WPUF PO B DBTF CZ DBTF CBTJT JO DPOUFTUFE FMFDUJPO  
PG FWFOU MFBEJOH VQ UP UIF QSPYZ DPOUFTU RVBMJGJD  
EJTTJEFOU GPS JODVNCFOU XIFUIFS UIF CPBSE JT DPN  
LFZ DPNNJUUFFT J F OPNJOBUJOH BVEJU DPNQFOTBUJPO  
EJTDVTTJPO XJUI UIF SFTQFDUJWF QPSUGPMJP NBOBHFS T  
3FJNCVSTF 1SPYZ 4PMJDJUBUJPO &YQFOTFT

8F WPUF PO B DBTF CZ DBTF CBTJT PO QSPQPTBMT UP QSPV  
QSPYZ DPOUFTU \$POTJEFSBUJPOT JODMVEF JEFOUJUZ PG  
TPMJDJUBUJPO QFSDFOUBHF UIBU XJMM CF QBJE UP QSPYZ

\$ "VEJUPST  
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8F WPUF GPS QSPQPTBMT UP SBUJGZ BVEJUPST VOMFTT BC  
UIF DPNQBOZ BOE JT UIFSFGPSF OPU JOEFQFOEOFU PS UI  
BVEJUPS IBT SFOEFSFE BO PQJOJPO UIBU JT OFJUIFS BDDV  
QPTJUJPO PS UIFSF JT SFBTPO UP CFMJFWF UIF JOEFQFOEOF  
FUIJDBM DPOEVDU 4QFDJGJDBMMZ XF XJMM WPUF UP SBU  
BVEJU TFSWJDFT BOE TVDI PUIFS BVEJU SFMBUFE BOE OPO  
TVDI BVEJUPST UP MPTF UIFJS JOEFQFOEOFDF VOEFS BQQM  
'JOBODJBM 4UBUFNFOUT BOE %JSFDUPS BOE "VEJUPS 3FQP  
8F HFOFSBMMZ WPUF GPS NBOBFNFQ BOE QSPQPTBMT TFFLJO  
UIF EJTDIBSHF PG NBOBFNFQ BOE TVQFSWJTPSZ CPBSE N  
BDUJPOT PG UIF DPNQBOZ T BVEJUPST PS EJSFDUPST  
3FNVOFSBUJPO PG "VEJUPST

8F WPUF GPS QSPQPTBMT UP BVUIPSJ[F UIF CPBSE PS BO B  
SFNVOFSBUJPO PG BVEJUPST VOMFTT UIFSF JT FWJEFODF  
OBUVSF PG UIF DPNQBOZ  
\*OEFNOJGJDBUJPO PG "VEJUPST  
8F WPUF BHBJOTU QSPQPTBMT UP JOEFNOJGZ BVEJUPST  
% 1SPYZ \$POUFTU %FGFOTFT  
#PBSE 4USVDUVSF 4UBHHFSFE WT "OOVBM &MFDUJPOT  
B 8F WPUF BHBJOTU QSPQPTBMT UP DMBTTJGZ UIF CPBSE  
C 8F WPUF GPS QSPQPTBMT UP SFQFBM DMBTTJGJFE CPBS  
4IBSFIPMEFS "CJMJUZ UP 3FNPWF %JSFDUPST





8F WPUF GPS QSPQPTBMT UIBU TFFL UP CSJOH GPSUI PUIFS  
"EKPVSO .FFUJAH

8F WPUF PO B DBTF CZ DBTF CBTJT PO QSPQPTBMT UIBU TF  
TPMJDJU BEEJUJPOBM WPUFT  
-BDL PG \*OGPSNBUJPO

8F WPUF BHBJOTU QSPQPTBMT JG B DPNQBOZ GBJMT UP QSI  
XIJDI UP CBTF UIFJS WPUJAH EFDJTJPO

( \$BQJUBM 4USVDUVSF  
\$PNNPO 4UPDL "VUIPSJ[BUJPO

B 8F WPUF PO B DBTF CZ DBTF CBTJT PO QSPQPTBMT UP  
TUPDL BVUIPSJ[FE GPS JTTVF FYDFQU BT EFTDSJCFC E

C 4VCKFDU UP QBSBHSBQI CFMPX XF WPUF GPS UIF B  
TIBSFT JG UIF DPNQBOZ NFFUT DFSUBJO DSJUFSJB  
\$PNQBOZ IBT BMSFBEZ JTTVFE B DFSUBJO QFSDFOUE  
DPNQBOZhT BMMMPUNFOU

5IF QSPQPTFE JODSFBLT JT SFBTPOBCMF J F MFTT  
BO BOBMZTJT PG UIF DPNQBOZhT IJTUPSJDBM TUPDL  
DPNQBOZ

D 8F WPUF PO B DBTF CZ DBTF CBTJT CBTFE PO UIF JO  
JT HSFBUFS UIBO PG BO BDDPVOU  
4UPDL %JTUSJCVUJPOT 4QMJUT BOE %JWJEFOET

8F WPUF PO B DBTF CZ DBTF CBTJT PO NBOBHFNFQ QSPQPF  
B TUPDL TQMJI QSPWJEFE UIBU UIF TQMJI EPFT OPU SFTV  
NPSF UIBO BGUFS HJWJOH FGGFDU UP UIF TIBSFT OFFER  
3FWFSTF 4UPDL 4QMJUT

8F WPUF GPS NBOBHFNFQ QSPQPTBMT UP JNQMFNFQ B SP  
EPFT OPU SFTVMU JO BO JODSFBLT PG BVUIPSJ[FE CVU VOJ  
UP UIF TIBSFT OFFEFE GPS UIF SFWFSTF TQMJI

#MBOL \$IFDL 1SFGFSSFE 4UPDL

B 8F WPUF BHBJOTU QSPQPTBMT UP DSFBUF BVUIPSJ  
SFHBSE UP CMBOL DIFDL QSFGFSSFE TUPDL XJUI VOT  
EJTUSJCVUJPQ BOE PUIFS SJHIUT

C 8F WPUF GPS QSPQPTBMT UP DSFBUF iEFDMBXFEw C  
DBOOPO CF VTFE BT B UBLFPWFS EFGFOTF

D 8F WPUF GPS QSPQPTBMT UP BVUIPSJ[F QSFGFSSFE  
UIF WPUJAH EJWJEFOE DPOWFSTJPO BOE PUIFS SJ  
QSFGFSSFE TUPDL BQQFBS SFBTPOBCMF

E 8F WPUF GPS QSPQPTBMT SFRVJSJAH B TIBSFIPMEF  
JTTVFT

"EKVTU 1BS 7BMVF PG \$PNNPO 4UPDL

8F WPUF GPS NBOBHFNFQ QSPQPTBMT UP SFEVDF UIF QBS

1SFFNQUJWF 3JHIUT

0#3" 3FMBUFE \$PNQFOTBUJPO 1SPQPTBMT  
B "NFOENFOUT UIBU 1MBDF B \$BQ PO "OOVBM (SBOU PS "N  
8F WPUF GPS QMBOT UIBU TJNQMZ BNFOE TIBSFIPMEFS B  
PS QMBDF B DBQ PO UIF BOOVBM HSOUT BOZ POF QBSUJ  
PG 4FDUJPO N PG UIF \*OUFSOBM 3FWFOVF \$PEF  
C "NFOENFOUT UP "EEFE 1FSGPSNBODF #BTFE (PBMT  
8F WPUF GPS BNFOENFOUT UP BEE QFSGPSNBODF HPBMT  
UIF QSPWJTJPOT PG 4FDUJPO N PG UIF \*OUFSOBM 3FW  
D "NFOENFOUT UP \*ODSFBDTF 4IBSFT BOE 3FUBJO 5BY %FEV  
8F WPUF GPS BNFOENFOUT UP FYJTUJQH QMBOT UP JODS  
GBWPSBCMF UBY USFBUNFOU VOEFS UIF QSPWJTJPOT PG  
E "QQSPWBM PG \$BTI PS \$BTI BOE 4UPDL #POVT 1MBOT  
8F WPUF GPS DBTI PS DBTI BOE TUPDL CPOVT QMBOT UP FY  
QSPWJTJPOT PG 4FDUJPO N PG UIF \*OUFSOBM 3FWFOVF  
&YQFOTJQH PG 0QUJPOT  
8F WPUF GPS QSPQPTBMT UP FYQFOTF TUPDL PQUJPOT PO C  
4IBSFIPMEFS 1SPQPTBMT UP -JNJU &YFDVUJWF BOE %JSFDU  
B 8F WPUF PO B DBTF CZ DBTF CBTJT PO BMM TIBSFIPMEFS  
FYFDVUJWF BOE EJSFDUPS QBZ JOGPSNBUJPO \$POTJEFS  
WPUF GPS TVDI QSPQPTBMT JG BEEJUJPOBM EJTDMPPTVSF  
QVU UIF DPNQBOZ BU B DPNQFUJUJWF EJTBEWBOUBHF SF  
C 8F WPUF PO B DBTF CZ DBTF CBTJT PO BMM PUIFS TIBSF  
EJSFDUPS QBZ  
3FQPSUT UP "TTFTT UIF 'FBTJCJMJUZ PG \*ODMVEJQH 4VTUB  
8F WPUF JO GBWPS PG OPO CJOEJQH QSPQPTBMT GPS SFQPSU  
QFSGPSNBODF NFUSJD GPS TFOJPS FYFDVUJWF DPNQFOTBUJP  
8F IBWF B QPMJDZ PG WPUJQH UP SFBTPOBCMZ MJNJu UIF MF  
BSSBOHFNFOOUT BWBJMBCMF UP NBOBHFNFOU UP SFBTPOBCMZ  
DPNQFOTBUJPO 'PS PQUJPOT BOE FRVJUZ CBTFE DPNQFOTBU  
BNFOENFOUT UIBU XPVME SFTVMU JO UIF BWBJMBCMF BXBSET  
TIBSFT J F JG UIF DPNCJOFE UPUBM PG TIBSFT DPNNPO TIBS  
VOEFS BMM DVSSFOU BOE QSPQPTFE DPNQFOTBUJPO QMBOT J  
BWBJMBCMF BXBSET FYDFFE UIF UISFTIPME XF XPVME BMT  
PG JUT TQFDJGJD JOEVTSZ F H UFDIOPMPHZ GJSNT OUIFS  
GPMMMPXJQH  
\$PNQFOTBUJPO DPNNJUUFF DPNQSJTTE PG JOEFQFOEOF  
.BYJNVN BXBSE MJNJUT  
8E 3FQPSU DJOFH KJBIPOU TIBSFIPMEFS@BQ QSPWBM BQJAPM@B4b17E

(PMEFO 1BSBDIVUFT

B 8F WPUF GPS TIBSFIPMEFS QSPQPTBMT UP IBWF HPMEFO  
SBUJGJDBUJPO

5IFSF JT OP EJTDPOU PO UIF TUPDL QSJDF PO QVSDIE  
\*G UIF BCPWF EP OPU BQQMZ XF WPUF BHBJOTU UIF OP  
L &NQMPZFF #FOFGJU 1MBOT  
8F WPUF GPS QSPQPTBMT UP JNQMNFNU B L TBWJOHT C  
4UPDL \$PNQFOTBUJPO 1MBOT  
B 8F WPUF GPS TUPDL DPNQFOTBUJPO QMBOT XIIDI QSPWJ  
C 8F WPUF PO B DBTF CZ DBTF CBTJT GPS TUPDL DPNQFOT  
EPMMBS DBTI GPS TUPDL FYDIBOHF VTJOH B RVBOUJUBUJ  
%JSFDUPST 3FUJSFNFOU 1MBOT  
B 8F WPUF BHBJOTU SFUJSFNFOU QMBOT GPS OPO FNQMPZ  
C 8F WPUF GPS TIBSFIPMEFS QSPQPTBMT UP FMJNJOPUF S  
.BOBHFNFOU 1SPQPTBMT UP 3FQSJDF 0QUJPOT  
8F WPUF BHBJOTU NBOBHFNFOU QSPQPTBMT TFFLJOH BQQS  
4IBSFIPMEFS 1SPQPTBMT 3FHBSEJOH &YFDVUJWF BOE %JSF  
B 8F WPUF BHBJOTU TIBSFIPMEFS QSPQPTBMT TFFLJOH UP  
PUIFSXJTF EJDUBUF UIF BNPVOU PS GPSN PG DPNQFOTBU  
C 8F WPUF BHBJOTU TIBSFIPMEFS QSPQPTBMT SFRVJSJOH  
D 8F WPUF BHBJOTU TIBSFIPMEFS QSPQPTBMT UP FMJNJOP  
DIBOHF PG DPOUSPM  
E 8F WPUF GPS TIBSFIPMEFS QSPQPTBMT UP QVU PQUJPO  
F 8F WPUF GPS TIBSFIPMEFS QSPQPTBMT UIBU DBMM GPS  
PO QBZw \$PNQBOZ CPBSET XPVME BEPQU B QPMJDZ HJV  
NFFUJOH UP WPUF PO BO BEWJTPSZ SFTPMVUJPO UP SBU  
PGGJDFST TFU GPSUI JO UIF QSPYZ TUBUFNFNU T TVNNB  
G 8F WPUF iBOOVBMw GPS UIF GSFRVFODZ PG TBZ PO QBZ  
ZFBST  
H 8F WPUF PO B DBTF CZ DBTF CBTJT GPS BMM PUIFS TIBS  
EJSFDUPS QBZ UBLJJOH JOUP BDDPVOU DPNQBOZ QFSGPS  
JOEVTSZ BOE MPOH UFSN DPSQPSBUF PVUMPPL  
.BOBHFNFOU 1SPQPTBMT PO &YFDVUJWF \$PNQFOTBUJPO  
'PS OPO CJOEJOH BEWJTPSZ WPUFT PO FYFDVUJWF PGGJDF  
TFSWJDF QSPWJEFS BHSFF XF WPUF GPS UIF QSPQPTBM 8  
EJTBSFF UIF QSPQPTBM CFDPNFT B SFGFS JUFN \*O UIF D  
DPOTJEFSBUJPO XJMM JODMVEF UIF GPMMMPXJOH  
\$PNQBOZ QFSGPSNBODF PWFS UIF MBTU BOE ZFBS  
1FSGPSNBODF NFUSJDT GPS TIPSU BOE MPOH UFSN JODF  
\$&0 QBZ SFMBUJWF UP DPNQBOZ QFSGPSNBODF JT UIFSF  
5BY HSPTT VQT UP TFOJPS FYFDVUJWF  
\$IBOHF JO DPOUSPM BSSBOHFNFOU

1SFTFODF PG B DMBXCBDL QSPWJTJPO PXOFSTIJQ HVJE  
FYFDVUJWFT

4UPDL 3FUFOUJPO )PMEJOH 1FSJPE PG &RVJUZ "XBSET  
8F WPUF PO B DBTF CZ DBTF CBTJT PO TIBSFIPMEFS QSPQP  
TFOJPS FYFDVUJWFT UP SFUBJO BMM PS B TJHOJGJDBOU  
FRVJUZ DPNQFOTBUJPO QMBOT FJUIFS

8IJMF FNQMPZFE BOE PS GPS POF UP UXP ZFBST GPMMMPX  
'PS B TVCTUBOIJBM QFSJPE GPMMMPXJOH UIF MBQTF PG B  
SBUBCMF SFMFBTF PG B QPSUJPO PG UIF TIBSFT BOOVBM  
5IF GPMMMPXJOH GBDUPST XJMM CF UBLFO JOUP DPOTJEFST  
8IFUIFS UIF DPNQBOZ IBT BOZ IPMEJOH QFSJPE SFUFOUJ  
PXOFSTIJQ SFRVJSFNFOUT DVSSFOUMZ JO QMBDF  
"DUVBM TUPDL PXOFSTIJQ PG UIF DPNQBOZ T OBNFE FYF  
1PMJDJFT BJVFE BU NJUJHBUJAH SJTL UBLJOH CZ TFOJPS  
1BZ QSBDUJDFT BU UIF DPNQBOZ UIBU XF EFN QSPCMFN

\* 4UBUF \$PVOUSZ PG \*ODPSQPSBUJPO  
7PUJAH PO 4UBUF 5BLFPWFS 4UBUVUFT  
B 8F WPUF GPS QSPQPTBMT UP PQU PVU PG TUBUF GSFF[  
C 8F WPUF GPS QSPQPTBMT UP PQU PVU PG TUBUF EJTHPS  
7PUJAH PO 3F JODPSQPSBUJPO 1SPQPTBMT  
8F WPUF PO B DBTF CZ DBTF CBTJT PO QSPQPTBMT UP DIBOHF





G 8F WPUF BHBJOTU QSPQPTBMT UP BQQSPWF PUIFS CVTJ  
3PVUJOF "HFOEB \*UFNT  
\*O TPNF NBSLFUT TIBSFIPMEFST BSF SPVUJOFMZ BTLFE UP  
UIF PQFOJOH PG UIF TIBSFIPMEFS NFFUJOH  
UIBU UIF NFFUJOH IBT CFFO DPOWFOFE VOEFS MPDBM  
UIF QSFTFODF PG B RVPSVN  
UIF BHFOEB GPS UIF TIBSFIPMEFS NFFUJOH  
UIF FMFDUJPO PG UIF DIBJS PG UIF NFFUJOH  
SFHVMBUPSZ GJMJOHT  
UIF BMMPXBODF PG RVFTUJPOT  
UIF QVCMJD\_BUJPO PG NJOVUFT  
UIF DMPTJOH PG UIF TIBSFIPMEFS NFFUJOH  
8F HFOFSBMMZ WPUF GPS UIFTF BOE TJNJMBS SPVUJOF  
"MMPDBUJPO PG \*ODPNF BOE %JWJEFOET  
8F HFOFSBMMZ WPUF GPS NBOBFNFQ QSPQPTBMT DPODF  
EJWJEFOET VOMFTT UIF BNPOU PG UIF EJTUSJC  
4UPDL 4DSJQ %JWJEFOE "MUFSOBUJWFT  
B 8F WPUF GPS NPTU TUPDL TDSJQ EJWJEFOE QSPQPTB  
C 8F WPUF BHBJOTU QSPQPTBMT UIBU EP OPU BMMPX GPS  
UIBU UIF DBTI PQUJPO JT IBSNGVM UP TIBSFIPMEFS WBM  
\$MFBS#SJEHF IBT EFUFSNJOFE UIBU SFHJTUFSE JOWFTUNFO  
DPNQBOJFT SBJTF TQFDJBM QPMJDZ JTTVFT NBLJOH TQFDJGJ  
FYUFQ UIBU \$MFBS#SJEHF IBT QSPYZ WPUJOH BVUIPSJUZ XJU  
\$MFBS#SJEHF TIBMM WPUF TVDI TIBSFT JO UIF CFTU JOUFSFT  
QSJODJQMFT TFU GPSUI IFSFJO XJUIPVU SFHBSE UP UIF TQFD  
5IF WPUJOH QPMJDZ HVJEFMJOFT TFU GPSUI IFSFJO XJMM CF  
JUT TPMF EJTDSFUJPO

7\* 05)&3 \$0/4\*%&3"5\*0/4

\*O DFSUBJO TJUVBUJPOT \$MFBS#SJEHF NBZ EFUFSNJOF OPU UP W  
UIBU UIF FYQFDUFE CFOFGJU UP UIF DMJFOU PG WPUJOH TIBSFT J  
TJUVBUJPOT JO XIIDI \$MFBS#SJEHF NBZ EFUFSNJOF OPU UP WPUF

" 4IBSF #MPDLJOH

1SPYZ WPUJOH JO DFSUBJO DPVOUSJFT SFRVJSFT iTIBSF CMPDL  
QSPYJFT NVTU EFQPTJU UIFJS TIBSFT TIPSUMZ CFGPSF UIF EBU  
EFQPTJUBSZ %VSJOH UIF CMPDLJOH QFSJPE TIBSFT UIBU XJMM  
IBT UBLFO QMBDF BOE UIF TIBSFT IBWF CFFO SFUVSOFE UP DMJF  
XIFUIFS UP WPUF TIBSFT TVCKFDU UP TIBSF CMPDLJOH \$MFBS#S  
GBDUT BOE DJSDVNTUBODFT UIF FYQFDUFE CFOFGJU UP DMJFO  
CFJOH BCMF UP TFMM TVDI TIBSFT EVSJJOH UIF BQQMJDBCM  
QFS



\*O MJFV PG LFFQJOH DPQJFT PG QSPYZ TUBUFNFOUT \$MFBS#SJ  
TZTUFN BT XFMM BT PO UIJSE QBSUZ SFDPSET PG QSPYZ TUBUFNFOUT  
VOEFSUBLJOH UP QSPWJEF UIF EPDVNFOUT QSPNQUMZ VQPO SFF



5IF TG JOEJDBUPS GPS TUSVDUVSFE GJOBODF TFDVSJUZ SBUJOHT  
GVOEBNFOUBM TFDVSJUJFT NBZ IBWF EJGGFSFOU SJTL DIBSBDUFSJTUJD  
BDIJFWF CSPBE FYQFDUFE FRVJWBMFODF JO TUSVDUVSFE GJOBODF BOE  
QFSJPE PG UJNF

%FTDSJQUJPO PG .PPEZ T \*OWFTUPST 4FSWJDF \*OD T (MPCBM -POH  
"BB%0CMJHBUJPOT SBUFE "BB BSF KVEHFE UP CF PG UIF IJHIFTU R  
"B%0CMJHBUJPOT SBUFE "B BSF KVEHFE UP CF PG IJHI RVBMJUZ B  
"%0CMJHBUJPOT SBUFE " BSF KVEHFE UP CF VQQFS NFEJVN HSBEF  
#BB%0CMJHBUJPOT SBUFE #BB BSF KVEHFE UP CF NFEJVN HSBEF B  
QPTTFTT DFSUBJO TQFDVMBUJWF DIBSBDUFSJTUJDT  
#B%0CMJHBUJPOT SBUFE #B BSF KVEHFE UP CF TQFDVMBUJWF BOE  
#%0CMJHBUJPOT SBUFE # BSF DPOTJEFSFE TQFDVMBUJWF BOE BSF  
\$BB%0CMJHBUJPOT SBUFE \$BB BSF KVEHFE UP CF TQFDVMBUJWF P  
\$B%0CMJHBUJPOT SBUFE \$B BSF IJHIMZ TQFDVMBUJWF BOE BSF MJ  
PG QSJODJQBM BOE JOUFSFTU  
\$%0CMJHBUJPOT SBUFE \$ BSF UIF MPXFTU SBUFE BOE BSF UZQJD  
JOUFSFTU  
/PUF .PPEZ T BQQFOET OVNFSDBM NPEJGJFST BOE UP FBDI

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##%"O PCMJHBUJPO SBUFE i##w JT MFTT WVMOFSBCMF UP OPOQBZI  
POHPJOH VODFSUBJOUJFT PS FYQPTVSF UP BEWFSTF CVTJOFTT GJ  
PCMJHPS T JOBEFRVBUF DBQBDJUZ UP NFFU JUT GJOBODJBM DPNN  
#%"O PCMJHBUJPO SBUFE i#w JT NPSF WVMOFSBCMF UP OPOQBZNFI  
IBT UIF DBQBDJUZ UP NFFU JUT GJOBODJBM DPNNJUNFOUT PO UIF  
DPOEJUJPOT XJMM MJLFMZ JNQBJS UIF PCMJHPS T DBQBDJUZ PS XJ  
\$\$\$\$%"O PCMJHBUJPO SBUFE i\$\$\$\$w JT DVSSFOUMZ WVMOFSBCMF UP  
GJOBODJBM BOE FDPOPND DPOEJUJPOT GPS UIF PCMJHPS UP NFF  
BEWFSTF CVTJOFTT GJOBODJBM PS FDPOPND DPOEJUJPOT UIF P  
DPNNJUNFOUT PO UIF PCMJHBUJPO  
\$\$%"O PCMJHBUJPO SBUFE i\$\$w JT DVSSFOUMZ IJHIMZ WVMOFSBCM  
5IF i\$\$w SBUJOH JT VTFE XIFO B EFGBVMU IBT OPU ZFU PDDVSSFE

)PXFWFS BOZ TUBUFE HSBDF QFSJPE MPOHFS UIBO GJWF CVTJOFTT EB  
VTFE VQPO UIF GJMJOH PG B CBOLSVQUZ QFUJUJPO PS UIF UBLJOH PG  
DFSUBJOUZ GPS FYBNQMF EVF UP BVUPNBUJD TUBZ QSPWJTJPOT " SB  
EFCU SFTUSVDUVSJOH

%FTDSJQUJPO PG 4 1 (MPCBM 3BUJOHT .VOJDJQBM 4IPSU 5FSN /PUF 3B

"O 4 1 (MPCBM 3BUJOHT 6 4 NVOJDJQBM OPUF SBUJOH SFGMFDUT  
NBSLFU BDDFTT SJLT VOJRVF UP UIF OPUFT /PUFT EVF JO UISFF ZFB  
NBUVSJUZ PG NPSF UIBO UISFF ZFBST XJMM NPTU MJLFMZ SFDFJWF B M  
BTTJHO 4 1 (MPCBM 3BUJOHT BOBMZTJT XJMM SFWJFX UIF GPMMMPXJOH

"NPSUJ[BUJPO TDIFEVMF% UIF MBSHFS UIF GJOBM NBUVSJUZ SFMBUJW  
BOE

\$\$ "O PCMJHPS SBUFE i\$\$w JT DVSSFOUMZ IJHIMZ WVMOFSBCMF  
PDDVSSFE CVU 4 1 (MPCBM 3BUJOHT FYQFDUT EFGBVMU UP CF  
UP EFGBVMU

4% BOE % "O PCMJHPS JT SBUFE i4%w TFMFDUJWF EFGBVMU PS i%  
POF PS NPSF PG JUT GJOBODJBM PCMJHBUJPOT XIFUIFS MPOH PS TIPS  
JOTUSVNFOU DMBTTJGJFE BT SFHVMBUPSZ DBQJUBM PS JO OPOQBZNFC  
3BUJOHT CFMJFWFT UIBU UIF EFGBVMU XJMM CF B HFOFSBM EFGBVMU B  
PCMJHBUJPOT BT UIFZ DPNF EVF "O i4%w SBUJOH JT BTTJHOFE XIFO 4  
EFGBVMUFE PO B TQFDJGJD JTTVF PS DMBTT PG PCMJHBUJPOT CVU JU  
PG PCMJHBUJPOT JO B UJNFMZ NBOOFS " SBUJOH PO BO PCMJHPS JT M  
SFTUSVDUVSJAH

3BUJOHT GSPN i""w UP i\$\$\$\$w NBZ CF NPEJGJFE CZ UIF BEEJUJPO P  
XJUIJO UIF SBUJOH DBUFHPSJFT

4IPSU 5FSN \*TTVFS \$SFEJU 3BUJOHT

" "O PCMJHPS SBUFE i" w IBT TUSPOH DBQBDJUZ UP NFFU JUT  
DBUFHPSZ CZ 4 1 (MPCBM 3BUJOHT 8JUIJO UIJT DBUFHPSZ DI  
5IJT JOEJDBUFT UIBU UIF PCMJHPS T DBQBDJUZ UP NFFU JUT

" "O PCMJHPS SBUFE i" w IBT TBUJTGBDUPSZ DBQBDJUZ UP NFFU  
NPSF TVTDFQUJCMF UP UIF BEWFSTF FGGFDUT PG DIBOHFT JO  
JO UIF IJHIFTU SBUJOH DBUFHPSZ

" "O PCMJHPS SBUFE i" w IBT BEFRVBUFF DBQBDJUZ UP NFFU JU  
DPOEJUJPOT PS DIBOHJOH DJSDVNTUBODFT BSF NPSF MJLFMZ  
DPNNJUNFOU

# "O PCMJHPS SBUFE i#w JT SFHBSEFE BT WVMOFSBCMF BOE IB  
DVSSFOUMZ IBT UIF DBQBDJUZ UP NFFU JUT GJOBODJBM DPNN  
UIBU DPVME MFBE UP UIF PCMJHPS T JOBEFRVBUFF DBQBDJUZ

\$ "O PCMJHPS SBUFE i\$w JT DVSSFOUMZ WVMOFSBCMF UP OPOC  
BOE JT EFQFOEOFU VQPO GBWPSBCMF CVTJOFTT GJOBODJBM  
DPNNJUNFOU

4% BOE % "O PCMJHPS JT SBUFE i4%w TFMFDUJWF EFGBVMU PS i%  
POF PS NPSF PG JUT GJOBODJBM PCMJHBUJPOT XIFUIFS MPOH PS TIPS  
JOTUSVNFOU DMBTTJGJFE BT SFHVMBUPSZ DBQJUBM PS JO OPOQBZNFC  
3BUJOHT CFMJFWFT UIBU UIF EFGBVMU XJMM CF B HFOFSBM EFGBVMU B  
PCMJHBUJPOT BT UIFZ DPNF EVF "O i4%w SBUJOH JT BTTJHOFE XIFO 4  
EFGBVMUFE PO B TQFDJGJD JTTVF PS DMBTT PG PCMJHBUJPOT CVU JU  
PG PCMJHBUJPOT JO B UJNFMZ NBOOFS " SBUJOH PO BO PCMJHPS JT M  
SFTUSVDUVSJAH

%FTDSJQUJPO PG 4 1 (MPCBM 3BUJOHT %VBM 3BUJOHT

%VBM SBUJOHT NBZ CF BTTJHOFE UP EFCU JTTVFT UIBU IBWF B QV  
SBUJOH BEESFTTFTT UIF MJLFMJIPE PG SFQBZNFOU PG QSJODJQBM BOE  
POMZ UIF EFNBOE GFBUVSF 5IF GJSTU DPNQPOFOU PG UIF SBUJOH DBO  
BDDPSEJOHMZ VTF FJUIFS TIPSU UFSN PS MPOH UFSN SBUJOH TZNCPM  
JT BTTJHOFE B TIPSU UFSN SBUJOH TZNCPM GPS FYBNQMF i"""" w PS  
UIF 6 4 NVOJDJQBM TIPSU UFSN OPUF SBUJOH TZNCPM BSF VTFE GPS

%FTDSJQUJPO PG 4 1 (MPCBM 3BUJOHT "DUJWF 2VBMJGFST

4 1 (MPCBM 3BUJOHT VTFT UIF GPMMPXJOH RVBMJGFST UIBU MJNJ

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"T B SFTVMU JOEWJEBM PCMJHBUJPOT PG FOUJUJFT TVDI BT D  
UIBU FOUJUZ T JTTVFS SBUJOH PS \*%3 FYDFQU %\*1 PCMJHBUJPO SBUJC  
TDBMF 'JUDI QVCMJTIIFT FYQMJDJU 3FDPWFSZ 3BUJOHT JO NBOZ DBTFT

"" )JHIFTU \$SFEJU 2VBMJUZ i""w SBUJOHT EFOPUF UIF MPXFTU F  
DBTFT PG FYDFQUJPOBMMZ TUSPOH DBQBDJUZ GPS QBZNFOU PG GJOBO  
BGGFDUFE CZ GPSFTFFBCMF FWFOU

"" 7FSZ )JHI \$SFEJU 2VBMJUZ i""w SBUJOHT EFOPUF FYQFDUBUJPC  
DBQBDJUZ GPS QBZNFOU PG GJOBODJBM DPNNJUNFOU 5IJT DBQBDJUZ

" )JHI \$SFEJU 2VBMJUZ i"w SBUJOHT EFOPUF FYQFDUBUJPC  
DPNNJUNFOU JT DPOTJEFSFE TUSPOH 5IJT DBQBDJUZ NBZ OFWFSUIF  
DPOEJUJPOT UIBO JT UIF DBTF GPS IJHIFS SBUJOHT

### (PPE \$SFEJU 2VBMJUZ i##w SBUJOHT JOEJDBUF UIBU FYQFDU  
QBZNFOU PG GJOBODJBM DPNNJUNFOU JT DPOTJEFSFE BEFRVBUF CVU  
UIJT DBQBDJUZ

## 4QFDVMBUJWF i##w SBUJOHT JOEJDBUF BO FMFWBUFE WVMOFS  
DIBOHFT JO CVTJOFTT PS FDPOPND DPOEJUJPOT PWFS UJNF IPXFWFS  
GJOBODJBM DPNNJUNFOU UP CF NFU

# )JHIMZ 4QFDVMBUJWF i#w SBUJOHT JOEJDBUF UIBU NBUFSJBM D

\$\$\$ 4VCTUBOUJBM \$SFEJU 3JTL i\$\$w SBUJOHT JOEJDBUF UIBU TV

\$\$ 7FSZ )JHI -FWFMT PG \$SFEJU 3JTL i\$\$w SBUJOHT JOEJDBUF WF

\$ &YDFQUJPOBMMZ )JHI -FWFMT PG \$SFEJU 3JTL i\$w JOEJDBUFT F

5IF SBUJOHT PG DPSQPSBUF GJOBODF PCMJHBUJPOT BSF MJOLFE U  
GPS CBOLT BOE OPO CBOL GJOBODJBM JOTUJUVUJPOT CZ J SFDPWFSZ  
BTTJHOFE JO UIF DBTF PG MPX TQFDVMBUJWF HSBEF JTTVFST BOE JJ G  
QFSGPSNBODF SJTL SFMBUJWF UP UIF SJTL DBQUVSFE JO UIF \*%3 PS 7J

'PS QFSGPSNJOH PCMJHBUJPOT UIF PCMJHBUJPO SBUJOH SFQSFTF  
SFDPWFSJFT PO UIF DSFEJU SJTL TIPVME B EFGBVMU PDDVS

\*G UIF PCMJHBUJPO SBUJOH JT IJHIFS UIBO UIF SBUJOH PG UIF JTT  
FWFOU PG EFGBVMU \*G UIF PCMJHBUJPOT SBUJOH JT MPXFS UIBO UIF S  
EFGBVMU PDDVS

3BUJOHT JO UIF DBUFHPSJFT PG i\$\$w i\$\$w BOE i\$w DBO BMTP SF  
DBTF UIF SBUJOH EPFT OPU PQJOF PO EFGBVMU SJTL CVU SFGMFDUT U  
%FTDSJQUJPO PG 'JUDI 3BUJOHT \*TTVFS %FGBVMU 3BUJOHT

3BUFE FOUJUJFT JO B OVNCFS PG TFDUPST JODMVEJOH GJOBODJBM  
DPNQBOJFT BOE DFSUBJO TFDUPST XJUIJO QVCMJD GJOBODF BSF HFOF  
FOUFSQSJTFT JO HMPCBM JOGSBTUSVDUVSF QSPKFDU GJOBODF BOE Q'

"" )JHIFTU \$SFEJU 2VBMJUZ i""w SBUJOHT EFOPUF UIF MPXFTU F  
DBTFT PG FYDFQUJPOBMMZ TUSPOH DBQBDJUZ GPS QBZNFOU PG GJOBO  
BGGFDUFE CZ GPSFTFFBCMF FWFOU

" " 7FSZ )JHI \$SFEJU 2VBMJUZ i""w SBUJOHT EFOPUF FYQFDUBUJPC  
DBQBDJUZ GPS QBZNFOU PG GJOBODJBM DPNNJUNFOU 5IJT DBQBDJUZ

" )JHI \$SFEJU 2VBMJUZ i"w SBUJOHT EFOPUF FYQFDUBUJPOT PG M  
DPNNJUNFOU JT DPOTJEFSFE TUSPOH 5IJT DBQBDJUZ NBZ OFWFSUIFM  
DPOEJUJPOT UIBO JT UIF DBTF GPS IJHIFS SBUJOHT

### (PPE \$SFEJU 2VBMJUZ i##w SBUJOHT JOEJDBUF UIBU FYQFDU  
QBZNFOU PG GJOBODJBM DPNNJUNFOU JT DPOTJEFSFE BEFRVBUF CVU  
UIJT DBQBDJUZ

## 4QFDVMBUJWF i##w SBUJOHT JOEJDBUF BO FMFWBUFE WVMOFS  
DIBOHFT JO CVTJOFTT PS FDPOPND DPOEJUJPOT PWFS UJNF IPXFWFS  
PG GJOBODJBM DPNNJUNFOU

# )JHIMZ 4QFDVMBUJWF i#w SBUJOHT JOEJDBUF UIBU NBUFSJBM E  
'JOBODJBM DPNNJUNFOU BSF DVSSFOUMZ CFJOH NFU IPXFWFS DBQBD  
CVTJOFTT BOE FDPOPND FOWJSPOFOU

\$\$\$ 4VCTUBOUJBM \$SFEJU 3JTL 7FSZ MPX NBSHJO GPS TBGFUZ %  
\$\$ 7FSZ IJHI MFWFMT PG DSFEJU SJTL %FGBVMU PG TPNF LJOE BO  
\$ /FBS EFGBVMU " EFGBVMU PS EFGBVMU MJLF QSPDFTT IBT CFHW  
WFIJDMF QBZNFOU DBQBDJUZ JT JSSFWPDBCMZ JNQBJSFE \$POEJUJPOT  
5IF JTTVFS IBT FOUFSFE JOUP B HSBDF PS DVSF QFSJPE GPMMMPXJOH C  
5IF JTTVFS IBT FOUFSFE JOUP B UFNPQPSBSZ OFHPUJBUFE XBJWFS PS T  
GJOBODJBM PCMJHBUJPO  
5IF GPSNBM BOOPVODNFNU CZ UIF JTTVFS PS UIFJS BHFOU PG B EJTU  
" DMPTFE GJOBODJAH WFIJDMF XIFSF QBZNFOU DBQBDJUZ JT JSSFWPD  
QSJODJQBM JO GVMM EVSJOH UIF MJGF PG UIF USBOTBDUJPO CVU XIF  
3% 3FTUSJDUFE %FGBVMU i3%w SBUJOHT JOEJDBUF BO JTTVFS UI  
" O VODVSFE QBZNFOU EFGBVMU PS EJTUSFTT EFCU FYDIBOHF PO B C  
)BT OPU FOUFSFE JOUP CBOLSVQUZ GJMJOHT BENJOJTUSBUJPO SF  
IBT OPU PUIFSXJTF DFBBT FE PQFSBUJAH 5IJT XPVME JODMVEF  
5IF TFMFDUJWF QBZNFOU EFGBVMU PO B TQFDJGJD DMBTT PS D  
5IF VODVSFE FYQJSZ PG BOZ BQQMJDBCM FHSBDF QFSJPE DVS  
QBZNFOU EFGBVMU PO B CBOL MPBO DBQJUBM NBSLFUT TFDVS  
5IF FYUFOTJPO PG NVMUJQMF XBJWFST PS GPSCFBBSBODF QFSJPE  
GJOBODJBM PCMJHBUJPOT FJUIFS JO 0 OU PG GD` €PQQ ð@ ð

#

\* O BMM DBTFT UIF BTTJHONFOU PG B EFGBVMU SBUJOH SFGMFDUT  
DPOTJTUFOU XJUI UIF SFTU PG JUT VOJWFSTF PG SBUJOHT BOE NBZ EJ  
GJOBODJBM PCMJHBUJPOT PS MPDBM DPNNFSJDJB M QSBDUJDF  
% FTDSJQUJPO PG 'JUDI 3BUJOHT 4USVDUVSFE 'JOBODF -POH 5FSN 0CM  
3BUJOHT PG TUSVDUVSFE GJOBODF PCMJHBUJPOT PO UIF MPOH UF  
EFGBVMU 5IFTF SBUJOHT BSF UZQJDBMMZ BTTJHOFE UP BO JOEWJEVB  
"" )JHIFTU \$SFEJU 2VBMJUZ  
i "" "w SBUJOHT EFOPUF UIF MPXFTU FYQFDUBUJPO PG EFGBVMU SJTL  
DBQBDJUZ GPS QBZNFOU PG GJOBODJBM DPNNJUNFOU 5IJT DBQBDJUZ  
" " 7FSZ )JHI \$SFEJU 2VBMJUZ  
i "" "w SBUJOHT EFOPUF FYQFDUBUJPO PG WFSZ MPX EFGBVMU SJTL  
DPNNJUNFOU 5IJT DBQBDJUZ JT OPU TJHOJGJDBOUMZ WVMOFSBCMF U  
" )JHI \$SFEJU 2VBMJUZ  
i " w SBUJOHT EFOPUF FYQFDUBUJPO PG MPX EFGBVMU SJTL 5IF D  
TUSPOH 5IJT DBQBDJUZ NBZ OFWFSUIFMFTT CF NPSF WVMOFSBCMF U  
IJHIFS SBUJOHT  
### (PPE \$SFEJU 2VBMJUZ  
i ### w SBUJOHT JOEJDBUF UIBU FYQFDUBUJPO PG EFGBVMU SJTL  
DPNNJUNFOU JT DPOTJEFSFE BEFRVBUF CVU BEWFSTF CVTJOFTT PS F  
## 4QFDVMBUJWF  
i # w SBUJOHT JOEJDBUF BO FMFWBUFE WVMOFSBCJM JUZ UP EFGB  
PS FDPOPNJD DPOEJUJPOT PWFS UJNF  
# )JHIMZ 4QFDVMBUJWF  
i # w SBUJOHT JOEJDBUF UIBU NBUFSJBM EFGBVMU SJTL JT QSFTFOU  
BSF DVSSFOUMZ CFJOH NFU IPXFWFS DBQBDJUZ GPS DPOUJOVFE QBZN  
FOWJSPOFOU  
\$\$\$ 4VCTUBOUJBM \$SFEJU 3JTL  
7FSZ MPX NBSHJO GPS TBGFUZ %FGBVMU JT B SFBM QPTTJCJM JUZ  
\$\$ 7FSZ )JHI -FWFMT PG \$SFEJU 3JTL  
%FGBVMU PG TPNF LJOE BQQFBST QSPCBCMF  
\$ &YDFQUJPOBMMZ )JHI -FWFMT PG \$SFEJU 3JTL  
%FGBVMU BQQFBST JNNJOFOU PS JOFWJUBCMF  
% %FGBVMU  
\*OEJDBUFT B EFGBVMU %FGBVMU HFOFSBMMZ JT EFGJOFE BT POF  
'BJMVSF UP NBLF QBZNFOU PG QSJODJQBM BOE PS JOUFSFTU VOEFS U  
CBOLSVQUZ GJMJOHT BENJOJTUSBUPD SFDFJWFSTIJQ MJRVJEBUJF  
JTTVFS PCMJHPS PS  
EJTUSFTT FE FYDIBOHF PG BO PCMJHBUJPO XIFSF DSFEJUPST XFSF PG  
DPNQBSFE XJUI UIF FYJTUJOH PCMJHBUJPO UP BWPJE B QSPCBCMF QB  
% FTDSJQUJPO PG 'JUDI 3BUJOHT \$PVOUSZ \$FJMJOHT 3BUJOHT

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4USVDUVSFE 'JOBODF %FGBVMUT

\*NNJOFOU EFGBVMU DBUFHPSJ[FE VOEFS i\$w UZQJDMMZ SFGFST CZ UIF JTTVFS BOE JT BMM CVU JOFWJUBCMF 5IJT NBZ GPS FYBNQMF UZQJDMMZ IBT B HSBDF QFSJPE EVSJJOH XIJDI JU NBZ DVSF UIF QBZNFOU GPSNBMMZ BOOPVODFE B EJTUSFTTFE EFCU FYDIBOHF CVU UIF EBUF PGVUVSF

"EEJUJPOBMMZ JO TUSVDUVSFE GJOBODF USBOTBDUJPOT XIFSF B TVDI UIBU JU JT OPU FYQFDUFE UP QBZ JOUFSFTU BOE PS QSJODJQBM JEVSJJOH UIF MJGF PG UIF USBOTBDUJPO CVU XIFSF OP QBZNFOU EFGBVF UIF PCMJHBUJPO XJMM UZQJDMMZ CF SBUFE JO UIF i\$w DBUFHPSZ

4USVDUVSFE 'JOBODF 8SJUF EPXOT

8IFSF BO JOTUSVNFOU IBT FYQFSJFODFE BO JOWPMVOUBSZ BOE JO J F PUIFS UIBO UISPVHI BNPSUJ[BUJPO BOE SFTVMUJ OH JO B MPTT UP JOTUSVNFOU 8IFSF UIF BHFOZ CFMJFWFT UIF XSJUF EPXO NBZ QSPWF GVUVSF JG BOE XIFO QFSGPSNBODF JNQSPWFT UIF DSFEJU SBUJOH CF SFWFSTFE UIF DSFEJU SBUJOH XJMM CF SBJTFE UP BO BQQSPQSJBUT BT JSSFWFSTJCMF UIF DSFEJU SBUJOH XJMM CF MPXFSFE UP i%w

/PUFT

\*O UIF DBTF PG TUSVDUVSFE GJOBODF XIJMF UIF SBUJOHT EP OPU MPTT TFWFSJUZ BTTVNQUJPOT PO UIF VOEFSMZJOH BTTFUT BSF OPOFUI BTTVNQUJPOT BSF VTFE UP EFSJWF QPPM DBTI GMPXT BWBJMBCMF UP T

5IF TVGGJY iTGw EFOPUFT BO JTTVF UIBU JT B TUSVDUVSFE GJOBODF

&OIBODFE &RVJQNFOU 5SVTU \$FSUJGJDBUFT &&5\$T BSF DPSQPSB UP GJOBODF BJSDSBGU FRVJQNFOU %VF UP UIF IZCSJE DIBSBDUFSJTUJ CPUI UIF TUSVDUVSFE GJOBODF BOE DPSQPSBUF SBUJOH NFUIPEPMPHJ TUSVDUVSFE GJOBODF SBUJOHT &&5\$ SBUJOHT JOWPMWF B NFBTVSF P DPSQPSBUF GJOBODF BT EFTDSJCFC BCPWF

%FTDSJQUJPO PG 'JUDI 3BUJOHT 4IPSU 5FSN 3BUJOHT "TTJHOFE UP \*TT

" TIPSU UFSN JTTVFS PS PCMJHBUJPO SBUJOH JT CBTFE JO BMM DE BOE SFMBUFT UP UIF DBQBDJUZ UP NFFU GJOBODJBM PCMJHBUJPOT JO 4IPSU UFSN EFQPTJU SBUJOHT NBZ CF BEKVTFU GPS MPTT TFWFSJUZ NBUVSJUZ JT WJFXFE BT iTIPSU UFSNw CBTFE PO NBSLFU DPOWFQJPO NBUVSJUZ 5ZQJDMMZ UIJT NFBOT VQ UP NPOUIT GPS DPSQPSBUF PCMJHBUJPOT JO 6 4 QVCMJD GJOBODF NBSLFUT

' )JHIFTU 4IPSU 5FSN \$SFEJU 2VBMJUZ \*OEJDBUFT UIF TUSPOHFT DPNNJUNFOUT NBZ IBWF BO BEEFE i w UP EFOPUF BOZ FYDFQUJPOBMMZ

' (PPE 4IPSU 5FSN \$SFEJU 2VBMJUZ (PPE JOUSJOTJD DBQBDJUZ C

' 'BJS 4IPSU 5FSN \$SFEJU 2VBMJUZ 5IF JOUSJOTJD DBQBDJUZ GP

# 4QFDVMBUJWF 4IPSU 5FSN \$SFEJU 2VBMJUZ .JOJNBM DBQBDJUZ IFJHIUFOFE WVMOFSBCJMJUZ UP OFBS UFSN BEWFSTF DIBOHFT JO GJOBODF

\$ )JHI 4IPSU 5FSN %FGBVMU 3JTL %FGBVMU JT B SFBI QPTTJCJM

3% 3FTUSJDUFE %FGBVMU \*OEJDBUFT BO FOUJUZ UIBU IBT EFGBVF DPOUJOVFT UP NFFU PUIFS GJOBODJBM PCMJHBUJPOT 5ZQJDMMZ BQQ

% %FGBVMU \*OEJDBUFT B CSPBE CBTFE EFGBVMU FWFOU GPS BO

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