

9]bVfi W\ i bX ; YZU\ fYb. 'Dc`]nY]'VYf]W\ hYh
j cb 'J cfZÄ`Yb]b`>Yj Yf

DC@!K <J 'VYf]W\ hYh'ØVYf'9]bVfi W\ žJ Yf_Y\ fgi bZU`Zi W\ hi bX
6fUbX`]b`>Yj Yf'nk]gW\ Yb`&' "\$, "'i bX`&)"\$, "&\$&('5_hi Y`Y
9bhk]W`i b[Yb`i bX`8YhU]`g"

&)"\$, "&\$&(' '%' .&'

Dc`]nY]]bgdY_h]cb`K]\Y`a g\Uj Yb# f]Yg`UbX

5a`j Yf[Ub[YbYb`K cW\ YbYbXY`_Ua`Yg`]b`i bX`i a`>Yj Yf`ni
a`Y\ fYfYb`J cfZÄ`Ybž`X]Y`Ui g`i bhYfgW\]YX`]W\ Yb`; fØbXYb`X]Y
`c_U`Y`Dc`]nY]'VYgW\ ÄZh] [hYb`"8]YgY`9fY][b]ggY`fY]W\ Yb`j cb`Y]bYa
9]bVfi W\]b`Y]b`9]bZUa`]Y]b\Ui g`V]g`\]b`ni`Y]bYa`6fUbXž`XYf`XUg
9]b[fY]ZYb`XYf`; Yi Yfk Y\ f`YfZcfXYfhY`"8]Y`J cfZÄ`Y`j YfXYi h]W\ Yb
X]Y`<YfUi gZcfXYfi b[Ybž`a`]h`XYbYb`X]Y`G]W\ Yf\Y]hg_fÄZhY`]b`XYf
FY[]cb`_cbZfcbh]Yfh]g]bX"

9]bVfi W\ X]YVghU\`U`U`h`>Yj Yf`YfgW\ ØhhYfh`'`b`XYf
A ØbghYfa`UbbghfU»Y`bi`mhYb`i bVY`_UbbhY`HÄhYf`X]Y`5V`k`YgYb\Y]h
XYf`<Ui gVYk`c`b`Yfž`i`a`]b`XUg`i bVYk`c`b`hY`; YVÄi XY
Y]bni`VfYW\ Yb`"6Y]'XYa`J cfZU`k`i fXY`XUg`<Ui g`Xi`fW\ gi`W\ hž
`YXcW\`]gh`V]g`Ub[`i`b`_Ufž`c`V`Yhk`Ug`[`Yghc`\`Yb`k`i`fXY`"8]YgY`5fh
j`cb`?`f]a`]bU`]hÄh`]gh]a`a`Yf`U`Ufa`]YfYbXž`XU`g]Y`Y]b`; YZØ`\`XYf
l`bg]W\ Yf\Y]h]b`XYf`BUW\ VUfgW\ UZh`\]bhYf`Äggh`"8]Y`HÄhYf`_c`b`b`h`Y`b
i`bYf`_U`b`b`h`Y`b`h`_`c`a`a`Ybž`k`Ug`X]Y`9fa`]h`i`b[`Yb`XYf`Dc`]nY]
YfgW\ k`Yfh"

GW\ ÄXYb`Ub`ÖZZYb`h`]W\ Yb`9]b`f]W\ hi`b[`Yb

9]b`k`Y]hYfYf`J cfZU`YfY][`bYhY`g]W\`Ua`GUa`ghU[`UVYbX`]b`XYf

<Y`a ghYXYf`GhfU»Y`j]b`<c\Yb_]fWXYb" <]Yf`k i fXY`Y]b
N][UfYhhYbUi hca Uh`VYgW`AX][h"5bk c\bYf]b`VYcVUW`hYhYž`k]Y
I bVY`Ub`hY`X]Y`9`Y`hfcb]_`XYg`5i hca UhYb`a Ub]di` `]YfhYb"8]Y
Dc`nY]`k i fXY`gcZc`fh]bZc`fa]Yfh`i bX`Y]hYhY`Y]bY`]b`hYbg]j Y
Gdi fYbgi W`Y`Y]bž`i a`a`Ò[`]W`Y`<]bk Y]gY`Ui Z`X]Y`H`hYf`ni
Yf\U`hYb" `Gc`W`Y`J`UbXU`]ga i gU`hY`ghY`Yb`b]W`h`bi`f`Y]b
Z]bUb]n]Y`Yg`DfcV`Ya` `ZØf`X]Y`6YhfY]VYf`XUfž`gcbXYfb`gW`ØfYb`Ui`W`
6YXYb`_Yb` \]bg]W`h`]W`X`Yf`G]W`Yf\Y]h`]b`XYf` ; Ya`Y]bXY"

8]Y`Dc`nY]`k Uf`ni XYa`a`]hY]bYa`J`Yf`_Y`f`gi bZU` `]b`HYhhYbg
VYgW`ÅZh][h"5a` :`fY]hU[UVYbX`_Ua`Y`g`ni`Y]bYf` :`U`fYfZi`W`hž`U`g
Y]b`Xi`b`_Yg` :`U`fnYi` [`Y]bYb`dUf`_YbXYb`D?K`Ua`5i` »Ybgd]Y[Y`
VYgW`ÅX][hY`NYi` [Yb`XYg`J`cfZU`g` \UhhYb`XYb`Ni`gUa`a`Ybghc`»
VYcVUW`hYh`i`bX`X]Y`Dc`nY]`j`Yfgh`AbX][h" Hfcm`X]YgYf
6YcVUW`hi`b`[Yb`]gh`Yg`XYf`Dc`nY]`V]g`Ub[`b]W`h`[Y`i`b`[Ybž`XYb
I`bZU`j`Yfi`fgUW`Yf`ni`]XYbh]Z]n]YfYb"

8Ug`K`Y`hhYf`gd]Y`hY`YVYbZU`g`Y]bY`F`c`Y`VY]`XYb`9]bg`Å`h`Yb`XYf
Dc`nY]"9]b` \YZh][Yg` ; Yk`]hhYf`Ua`G`Ua`ghU[`ZØ`fhY`ni`a`Y`fYfYb
9]bg`Å`h`Ybž`XU`ghfYW`_Ybk`Y]gY`G`hfU»Yb`ØVYfgW`k`Ya`a`h`k`i`fXYb
i`bX`i`a` [YghØfnhY`6`Åi`a`Y` [YZ`Å`f`]W`Y`G]h`U]cbYb`gW`i`ZYb"
 ;`ØW`_`]W`Yfk`Y]gY`k`i`fXYb`_Y]bY`DYfgcbYb`j`Yf`Y`hnhž`XcW`gc`W`Y
K`Y`hhYfYfY][b]ggY`YfZc`fXYfb`]a`a`Yf`Y]bY`fUgW`Y`F`YU`_h]cb`XYf
9]bgUhn`f`Å`ZhY"

6fUbX`]a`9]bZUa`]`Yb` \Ui`g`

9]b`XfUa`Uh]gW`Yf`J`cfZU`YfY][bYhY`g]W`Ua`G`cbbhU[a`cf[Yb.` `⊕
Y]bYa`9]bZUa`]`Yb` \Ui`g`]a`C`W`gYb` \Ua`a`gk`Y[`VfUW`Y]b`6fUbX`]a
8UW`ghi` \`Ui`g" `I`a`\$+.%` `I` \f`[]b[Yb`VY]`XYf`Dc`nY]`a`Y`fYfY
B`chfi`ZY`Y]b"8]Y`gW`bY`Y]b[Yhf`c`ZY`bYb`9]bgUhn`f`Å`ZhY`VYgh`Å]h][hYb
X]Y`@U[Y` `a`Y`hYf`c`Y` :`Ua`a`Yb`gW`i` [Yb`Ui`g`XYa
8UW` [YgW`cgg"8]Y`VY]XYb`<Ui`gVYk`c\bYf`\UhhYb`g]W`fYW`h`hY]h][
]bg` :`fY]Y` [YfY`hYhž`a`i`gghYb`Y`XcW`k`Y[Yb`5hYa`VYgW`k`YfXYbž
j`Yfi`fgUW`h`Xi`fW`F`Ui`W` [UgYž`j`c`fgc`f[`]W` `]bg`?`fUb`_Yb` \Ui`g
 [YVfUW`h`k`YfXYb"8]Y` :`Yi`Yfk`Y`f`j`cb` `⌘`j`Yf`i`bX`7`Y`j`Yfbg`gY`hnhY
Y]bY`8`fY`\Y]hYf`Y]bž`i`a`X]Y` :`Ua`a`Yb`ni` `Ò`gW`Yb"8]Y`I`fgUW`Y
XYg`6fUbXYg`k`]fX`XYfnY]h`Yfa`]hY`hž`i`bX`k`Y]hYfY` `⊕`Zc`fa`Uh]cbYb

g]bX`bcW\`UVni k UfhYb"

⊕g[YgUa h`nY][Yb`X]YgY`9fY][b]ggYž`XUgg`X]Y`G]W\Yf\`Y]h`i]b`>]j Yf
]a a Yf`k]YXYf`Ui Z`X]Y`DfcVY`[YghY`h`k]fX"K `À\`fYbX`X]Y`6Y\`ÖfXYb
VYa Ø\`h`g]bXž`gW\`bY`ni`fYU[]YfYb`i bX`X]Y`H`hYf`ni`Z]bXYbž`V`Y]Vh
X]Y` , VYfk UW\`i b[`i bX`Df`Äj Ybh]cb`j cb`GhfUZhUhYb`Y]b`nYbhfU`Yg
5b`Y[Yb"8]Y`6Yf]W\`hYfghUhi b[`ØVYf`gc`W\`Y`J cfZ`Ä`Y`]gh`b]W\`h`bi`f
]bZcfa Uh]j`ZØf`X]Y`6Øf[Yfž`gc`bXYfb`gc`Ui W\`ni`f`K UW\`gUa`_Y]h
UbfY[Yb"9g]gh`k]W\`h][ž`XUgg`X]Y` ; Ya Y]bgW\`UZh
ni`gUa`a`YbUfVY]hYhi bX`j YfX`ÄW\`h][Y`5`_h]j]h`hYb`gc`Zc`f`h`a`Y`X`Y`hž
i`a`X]Y`G]W\`Yf\`Y]h`U`Yf`ni`[Yk `À\`f`Y]ghYb"

I a [Ub[`a]h`G]W\`Yf\`Y]h`i bX`Df`Äj Ybh]cb

⊕`5bVYhfUW\`h`XYf`Øb[ghYb`J cfZ`Ä`Y`]gh`Yg`j cb`YbhgW\`Y]XYbXYf
6YXYi hi b[ž`XUgg`6Øf[Yf`b]W\`h`bi`f`]\`fY`i`a`[YV`i`b[`]a`5i`[Y
VY\`U`hYbž`gc`bXYfb`Ui W\`A`U»bU\`a`Yb`Yf[fY]ZYbž`i`a`]\`f`9][Ybhi`a
ni`gW\`Ø`hnYb" `Df`Äj Ybh]cbgg`hfUhY[]Yb`_`Ö`b`b`Yb`X`U`ni`V`Y]hfU[Ybž
Ä\`b`]W\`Y`J cfZ`Ä`Y`]b`Ni`_`i`b`Z`h`ni`j`Y`fa`Y]XYb"; YgY`g`W\`UZh]W\`Yg
K UW\`gUa`_Y]hž`fY[Y`a`Ä»][Y`?`ca`a`i`b]_`Uh]cb`a`]h`XYb
G]W\`Yf\`Y]hgVY\`ÖfXYb`i bX`XUg`HY]`Yb`j cb`⊕`Zcfa`Uh]cbYb`ØVYf
j YfX`ÄW\`h][Y`5`_h]j]h`hYb`g]bX`k]W\`h][Y`G`W\`f]h`hYž`X]Y`X`Ug
G]W\`Yf\`Y]hg[YZØ\`i]b`XYf` ; Ya Y]bXY`gh`Äf`_`Yb`_`Ö`b`Yb"8]Y`Dc`nY]
V`Y]Vh`k`Y]hYf\`]b`Y]b`nYbhfU`Yf`5`bgd`fYW\`d`Uf`hbYf`ZØf`X]Y`6Øf[Yf`i`bX
Yfa`i`h][h`U`Y`ž`U`_h]j`ni`f`G]W\`Yf\`Y]h`VY]ni`hfU[Yb"

<]bhYf[fi bX]bZcfa Uh]cbYb`ni`f

? f]a]bU`]h`Ähg`U[Y`]b`>]j Yf

8]Y`G`hU`X`h`>]j Yfž`HY]`X`Y`g`@`U`b`X`_`f`Y]g`Y`g` :`f]Y`g`U`b`X`]b`B]Y`X`Y`f`g`U`W\`g`Y`b`ž
\`Uh]b`X`Y`b`Y`h`h`Y`b`>]\`f`Y`b`Y]b`Y`ghY][YbXY`?`f]a]bU`]h`Ä`hg`f`UhY
j`Y`fn`Y]W\`b`Y`h"⊕`&`\$`&&`i`U[Yb`X]Y` ; YgUa`h`n`U\`Y`b`ZØf`X]Y`Dc`nY]`]W\`Y
?`f]a]bU`ghU]gh]_`f`D?`G`E`]b`B]Y`X`Y`f`g`U`W\`g`Y`b`V`Y]`fi`b`X`)` '\$`\$\$`\$
fY[]ghf]Yf`h`Y`b`G`hf`U`Zh`U`h`Y`b`ž`k`U`g`Y]b`Ya`5`b`gh]Y[`j`cb`Y`h`k`U`*`ž`%`D`f`c`n`Y`b`h
]a`J`Y`f[`Y]W\`ni`a`J`c`f`U\`f`Y`b`h`g`d`f]W\`h"⊕`g`V`Y`g`c`b`X`Y`f`Y`9]b`V`f`Ø`W\`Y
i`b`X`G`U`W\`V`Y`g`W\`Ä`X][i`b[Yb`g]bX`]a`a`Y`f`k]Y`X`Y`f` ; Y[Yb`gh`U`b`X`X`Y`f
6`Y`f]W\`h`Y`f`gh`U`hi`b["8]Y`Dc`nY]`\`U`h`X`U`f`U`i`Z`f`Y`U[]Y`f`hž`]b`X`Y`a`g]Y

j YfghÀf_hY`DUhfci]`Yb`]b`DfcV`Ya fY[]cbYb`Y]bZØ\fhY`i bX
DfAj Ybh]cbga U» bU\`a Yb`]bg`@VYb`f]YŽ`i a`X]Y`6Øf[Yf`ØVYf
G]WYf\Y]hgj cf_Y\fi b[Yb`Ui Zni _`ÀfYb"

9]b`b]W`h`i bYf\YV`]W`Yf`HY`]`XYf`?f]a]bU`]h`h`k]fX`j cb`hYa dcf`ÀfYb
6Ygi W`Yfghf`Oa Yb`VYY]bZi gghž`Yhk U`k `À`fYbX`XYf` : Yf]YbnY]hYbž
k Ybb`j]Y`Y`6Yk c`bYf`UVk YgYbX`g]bX`"8]YgY`l a gh`AbXY`gW`UZZYb
; Y`Y[Yb`Y]hYb`ZØf`9]bVfi W`X]YVgh`À`Yž`k]Y`X]Y`_Øfn`]W`
[Ya Y`XYhY`GhfUZhUh]b`XYf`A ØbghYfa UbbghfU»Y`nY][h`8Yf`9]bZi gg
gc`W`Yf`gcn]c`O`cbca]gW`Yf` : U`hcfYb`Ui ZX]Y`?f]a]bU`]h`h`]b`XYf
FY[]cb`k]fX`k Y]hYf\]b`i bhYfgi W`hž`i a` [Yn]Y`hY`A U» bU\`a Yb`ni f
DfAj Ybh]cb`ni`Yf[fY]ZYb"

GhUh]gh]_Yb`i bX`8UhYb`ni f`?f]a]bU`]h`h`]b B]YXYfgUW`gYb

@Ui h`XYf`Dc`]nY`]W`Yb`?f]a]bU`]ghUh]gh]_`ZØf`B]YXYfgUW`gYb`&\$&&
k i fXYb`]bg[YgUa h`) "%- (`9]bVfØW`Y`]b`K c`b[YV`Ai XY`YfZUgghž
k Ug`Y]bYa `5bgh]Y[`j cb`%\$ž`*`DfcnYbh]a`J Yf[`Y]W`ni a`J cf`U\`f
Ybhgd]W`h`-a`@UbX`_fY]g` : f]Yg`UbX`k i fXYb`&\$&&]bg[YgUa h`%+(
Xc`_i a Ybh]YfhY`9]bVfØW`Y`j YfnY]W`bYh`"8]YgY`9btk]W`_i b[
gd]Y[Y`h]g]W`Ui W`]b`XYb`Øb[ghYb`9fY][b]ggYb`]b`>] Yf`k]XYfž`k c
X]Y`Dc`]nY`]ØVYf`Y]bYb`5bgh]Y[`j cb`9]bVfi W`gX]YVgh`À`Yb
VYf]W`hYh`\Uh`"8]Y`H`hYf`bi hnYb`\`Ai Z][`i bVYk c`b`hY` ; YV`Ai XYž
]bgVYgcbXYfY`k `À`fYbX`XYf`l f`Ui VgnY]h"

8]Y`Dc`]nY`]`U`h`X`Uni`A U» bU\`a Yb`Yf[f]ZZYbž`XUfi bhYf`X]Y
: ØfXYfi b[`j cb`B UW`VUfgW`UZh`gk UW`Yb`i bX`>Zcfa Uh]cbYb`ØVYf
9]bVfi W`gW`i h`n`Øgi b[Yb`ZØf`<Ui g`U`hY`"K Y]hYf\]b`nY][h`X]Y
GhUh]gh]_ž`XUgg`?]bXYf`i bX`> [YbX`]W`Y`cZi]b
GUW`VYgW`ÀX][i b[Yb`]bj`c`j]Yfh]g]bXž`k Ug`]b`J YfV]bXi b[`a]h`XYb
Øb[ghYb`]J cfZ`À`Yb`Ua`N][UfYhhYbUi hca UhYb`]b`<c`Yb_]fW`Yb
ghY`Yb`_ØbbhY`"8]YgY`6YfY]W`Y`ghY`Yb`]a` : c`_i g`XYf`dc`]nY`]W`Yb
DfAj Ybh]cbgUfVY]hž`i a`ni`_ØbZi][Y`J cfZ`À`Y`ni`j Yfa Y]XYb"

8]Y`NU\`Yb`j YfXYi h`]W`Yb`X]Y`B`chk YbX][_Y]hž`X]Y
G]W`Yf\Y]hgVYk i gghgY]b`]b`XYf`6Yj`Ø`_Yfi b[`ni`gh`Àf`_Yb`i bX
dfAj Ybh]j Y`G`W`f]hY`ni`i bhYfbY`a Ybž`i a`?f]a]bU`]h`h`ni

j Yff]b[Yfb" K Y]hYfY : ðZcfa Uh]cbYb`_ÖbbYb`Ui Z`XYf`K YVgY]hY`XYf`
Dc`nY]`B]YXYfgUW`gYb`[YZi bXYb`k YfXYb"

8YhU]`g

6Ygi W`Yb`G]Y`i bg`Ui Z.`b!U["XY