

GhYi YfVYUa hY j YfghÅf_Yb]\fY'? c b hfc`Y ØVYf'? fmdhc

⊖`XYb`YhnhYb`j]Yf`⊘\fYb`Uhg]W`X]Y`k]bn][Y`⊖gY`Di Yfhc`F]W`Ui g`Y]bYa` ; fi bX`gh]`gW`k Y][YbX`ni`Y]bYa`NYbhfi a`ZØf`? fmdhc k Å\fi b[g!A`j`]UfXÅfY`i bX`UbXYfY`⊖\UVYf`X][]hU`Yf`J Yfa` Ò[Yb`gk YfhY`Ybhk]W`_Y`h`GhYi`Yfb`"5`g`I`G! HYff]hcf]i a`gd]Y`h`X]Y`⊖gY`gY]h`&\$%&`a`]h`nk`Y]; YgYhnYbž`X]Y`ni`Y]bYf`XfUgh]gW`Yb`GYb`_i b[`XYf`GhYi`YfgÅhnY`ZØ\fhYbž`Y]b`GhØW`_j ca`GhYi`YfdUfUX]Yg!`?i`W`Yb`"8]Y`HfUbgZcfa`Uh]cb`YffY[hY`&\$%,`X]Y`5i`Za`Yf_gUa`_Y]h`XYf`⊖\UVYf`j`cb`? fmdhc k Å\fi b[Ybž`bUW`XYa`X]Y`YfghY`XfUa`Uh]gW`Y`F`U`m`Y`j`cb`6]hW`]b`j]Y`Y`ZfØ`Y`?`Åi`Zf`gY`f`fY]W`[`Ya`UW`h`UhhY`"6fcW`_D]YfW`ž`Y`Ya`U`][Yf`?]bXYfgW`Ui`gd]Y`Yf`i`b`X`A`]hYfZ]bXYf`XYf`? fmdhc k Å\fi b[`HYh`Yfž`k`Uf`Y]bYf`XYf`YfghYb`[`fc»`Yb`BUa`Ybž`XYf`X]Y`B]YXf][ghYi`Yf]bgY`ni`gY]bYf`bYi`Yb`<Y]a`Uh`k`Å`hY`"GY]hXYa`U`UVYb`j]Y`Y`/`Ua`d`Λ`Y`d`/`

⊖`XYb`YhnhYb`j]Yf`⊘\fYb`Uhg]W`X]Y`k]bn][Y`⊖gY`Di Yfhc`F]W`Ui g`Y]bYa` ; fi bX`gh]`gW`k Y][YbX`ni`Y]bYa`NYbhfi a`ZØf`? fmdhc k Å\fi b[g!A`j`]UfXÅfY`i bX`UbXYfY`⊖\UVYf`X][]hU`Yf`J Yfa` Ò[Yb`gk YfhY`Ybhk]W`_Y`h`GhYi`Yfb`"

5`g`I`G!HYff]hcf]i a`gd]Y`h`X]Y`⊖gY`gY]h`&\$%&`a`]h`nk`Y]; YgYhnYbž`X]Y`ni`Y]bYf`XfUgh]gW`Yb`GYb`_i b[`XYf`GhYi`YfgÅhnY`ZØ\fhYbž`Y]b`GhØW`_j ca`GhYi`YfdUfUX]Yg!`?i`W`Yb`"

8]Y`HfUbgZcfa`Uh]cb`YffY[hY`&\$%,`X]Y`5i`Za`Yf_gUa`_Y]h`XYf`⊖\UVYf`j`cb`? fmdhc k Å\fi b[Ybž`bUW`XYa`X]Y`YfghY`XfUa`Uh]gW`Y`F`U`m`Y`j`cb`6]hW`]b`j]Y`Y`ZfØ`Y`?`Åi`Zf`gY`f`fY]W`[`Ya`UW`h`UhhY`"6fcW`_D]YfW`ž`Y`Ya`U`][Yf`?]bXYfgW`Ui`gd]Y`Yf`i`b`X`A`]hYfZ]bXYf`XYf`? fmdhc k Å\fi b[`HYh`Yfž`k`Uf`Y]bYf`XYf`YfghYb`[`fc»`Yb`BUa`Ybž`XYf`X]Y`B]YXf][ghYi`Yf]bgY`ni`gY]bYf`bYi`Yb`<Y]a`Uh`k`Å`hY`"GY]hXYa`

\ UVYb`j`j]Y`Y`UbXYfY`XYb`[`Y]WXYb`GWf]hh[Ya UW hž`Ui`g`XYb
[`Y]WXYb`; fØbXYb"

≠`XYb`i`G5`_Ubb`X]Y`? Ud]hU`YfhfU[gghYi`Yf`Ui`Z`? fmdhc`k`À`fi`b[Yb
V]g`ni`" +`Dfc`nYb`h`VYhfU[Ybž`UVYf`@Ub[nY]hVYg]hnYf`_ØbbYb`X]Y
6YghYi`Yfi`b[`X][]hU`Yf`J`Yfa` Ò[Yb`gk`YfhY`Ui`Z`XYf`? Uf]V_]bgY`
j`c`gh`AbX][`j`Yfa`Y]XYb"

K`Y]h`k`Y[`j`cb`Di`Yfhc`F]Wč`ž`gU[Yb`Vf]h]gWXY`6YfUhYfž`XUgg`g]Y`Ui`W
Ui`ZY]bY`_`Y]bYž`UVYf`k`UW`gYbXY`? c`c`fhY`j`cb`A`Yb`gW`Yb`ghc`»`Ybž`
X]Y`XUfUb`]b`hYfYgg]Yfh`g]b`Xž`XUg`@Ub`X`Ui`g`; fØbXYb`XYf`? fmdhc!
GhYi`Yf`ni`k`YW`gY`b`"7`f]g`9`h`Yf]b[hc`bž`ghYi`Yf`]WXYf`DUf`hb`Yf`VY]
F`GA`ž`Y]bYf`K`]fhgW`Už`gd`fØž`b[g[YgY`gW`Už`ž`gU[hž`Yf`\`UVY`a`Y`f
5b`ZfU[Yb`j`cb`Øb[YfYb`?i`bXYb`VYa`Yf`hž`X]Y`gY`f`[YfbY`bUW
,`VYfgY`n]Y`Ybž`i`a`]`fY`9`fZU`fi`b[Yb`ni`_f]ghU`]g]YfYb`"Wč]b`]b
B]YXf][ghYi`Yf`ÀbXYfb`k`j]Y`XYb`J`YfY]b][hYb`5fUV]gWXYb`9a`]fUhYb"

5i`W`k`Ybb`X]Y`5V`k`UbXYfi`b[`Yi`hfYa`YfgWXY]bYb`a`U[ž
j`YfXYi`h]WXYb`X]YgY`A`U`»`bU`a`Yb`XUg`ghUf`_`Y`≠`hYfYggY`j`j]Y`Yf
5b`Y[Yf`Ub`Y]bYf`GhYi`Yfa`]b]a`]Yfi`b[`]b`X]YgYf`g]W`gW`bY`
Yb`hk`jW`_`Y`bXYb`bYi`Yb`5b`U[Y`_`UggY"

<A`F`Yj`Ybi`Y`/`7i`ghc`a`g`gU[hi`bj`YfV`Øa`hž`XUgg`Yg`? fmdhc!5ggYhg
U`g`Y]bY`5fh`9][Yb`hi`a`k`jY`5`_h]Yb`i`bX`5`_h]Ybž`; c`X`c`XYf
]a`dfYgg]cb]gh]gWXY`; Ya`À`XY`VYhfUW`hYh`5i`Z`X]Y`Yfn]Y`hYb
; Yk`]bbY`_ØbbYb`U`gc`GhYi`Yfb`_]bgVYgc`bXYfY
? Ud]hU`YfhfU[ghYi`Yf`Yf`c`VYb`k`YfXYb`"8]Y`i`G!GhYi`YfVY`\`ØfXY
≠`hYfbU`F`Yj`Ybi`Y`GYfj`jW`j`Yfhf]hh`X]Y[`Y]WXY`<`U`hi`b[ž`k`j]Y`Ui`W
X]Y`:]b`Ub`n`Aa`hYf`]b`j`j]Y`Yb`UbXYfYb`≠`Xi`ghf]Y`ÀbXYfb"

8]YgY`6Y`\`ØfXYb`_`Aa`dZYb`\`Ufh`XUZØfž`XUgg`X]Y`f]W`h][Yb
GhYi`YfVYhf`À[Y`[YnU`\`h`k`YfXYb`_`Ui`W`]bXYa`g]Y`8`UhYb`j`cb
? fmdhc!6ØfgYb`ØVYf`]fY`6Ybi`hnYf`UbZcfXYfb"

5VYf`Yg`V`Y]VYb`a`Y`fYfY`GhfY]hd`i`b`_`hY`"GhYi`YfYi`dYfhYb`gU[Ybž
XUgg`F`Y[Y`bž`X]Y`ZØf`X]Y`Y`fU`j`c`f`XYa`_`≠`hYfbYh`Yb`hk`jW`_`Y`h`k`i`fXYbž
]a`X][]hU`Yb`NY]hU`hYf`gW`k`Yf`Ubni`k`YbXYb`g]bX`"G]Y
Uf[i`a`Yb]YfYbž`XUgg`F`Y[Y`i`b[Yb`ZØf`J`Yfa` Ò[Yb`gk`YfhYž`X]Y

Y]bXYi h][']b`XYf`Y]bYb`cXYf`UbXYfYb`đ f]gX]_h]cb`Ub[Yg]YXY`h
g]bXž`b]W`h`Y]W`h`Ub`Y]bY`XYnYbhfU`Y`5b`U[Y`_`UggY`Ub[YdUggh
k YfXYb`_`ÖbbYbž`XYfYb` ; Y`X[YVYf`c`ZhiVY`Ui`dhYbž`g]Y`\\UVY
ØVYf`Ui`dh`_`Y]bY`<Y]a`Uh[Yf]W`hgVUf`_`Y]hž`'U`_`Y]b`<Y]a`Uh`UbX`"

9I dYfhYb`ZØ[Yb`\\]bni`ž`XUgg`Yg`]b` ; fc» Vf]hUbb]Yb`]b`6Yni` [`Ui`ZX]Y
ghYi`Yf`]W`Y`6Y`\\UbX`i`b[`j`cb`?`fmdhc!`5ggYhg`Ub`G]W`Yf`\\Y]h
a`Ub[Y`hž`XU`Yg`_`Y]b`gdYn]Z]gW`Yg`?`fmdhc!`GhYi`Yf[YgYhn`[`]Vh`8`Y
<A`F`7`\\Uh`@Y]h]b]Yb`ni`f`6YghYi`Yfi`b[`j`cb`?`fmdhc`k`Å`\\fi`b[Yb
\\YfUi`g[Y[YVYb`8`Yg`]gh`YXcW`_`Y]bY` ; YgYhn[YVi`b[`i`bX`k`]fX
Ui`Z`YXYb` : U`j`cb`Y]b][Yb`GhYi`YfZUW`Yi`hYb`Ub[YZcW`hYb`
Y]bgW`\\Y`»`]W`X`Yf`GcW]Yhmic`Z`Hfi`gh`UbX`9ghUhY`DfUW]h]cbYfg
fGhYdŁ`"

: Øf`XYb`GhYi`YfnU`\\Yf`]gh`XUg`bi`f`Y]bY`i`bUb[YbY`a`Y`G]hi`Uh]cbž
k`Y`]XUg` :]bUbnUa`h`bYi`Y`HYW`bc`c[`]Yb`]b`X]Y
GhYi`Yf[YgYhn[YVi`b[`Y]bVUi`hž`X]Y`Yg`gW`cb`gY`f`Ub[Y`[`]Vh`ž`gU[`h
Hca`K`U`UW`ž`8`]fY`_`hc`f`ZØf`GhYi`YfYfa`]h`i`b[Yb`VY`]XYf
6YfUhi`b[gZ]fa`U`K`HH`i`bX`Y`Y`a`U`][Yf`GhYi`Yf]bgdY`_`hc`f`8`Ug`7` ; H!
 ; YgYhn`[`]Vh`Yg`gY]h`XYb`%-`*\$Yf`đ`\\fYbž`U`g`?`fmdhc`Yhk`Ug`[Yk`YgYb
k`ÅfYž`XUg`a`Ub`[YgY`\\Yb`\\`ÄhhY`GhUf`HfY`_`"

: H`A`cbYm`k`]fZi`Y]bYb`6`]W`_`Ui`ZX]YgY`_`ca`d`Yi`Y`i`bX`a`UbW`a`U`
i`bXi`fW`g]W`h][Y`@UbXgW`U`Zhi`bX`j`Yfgi`W`hž`Y]bYb`K`Y[`Xi`fW`_`]fY
g]W`gW`bY`ÄbXYfbXYb`A`Yf`_`a`U`Y`ni`Z]bXYb`"

9]bY`bYi`Y` : fcbh`]b`Y]bYa`U`hYb`GhYi`YfghfY]h

8]Y`I`G!GhYi`YfVY`\\ØfXYb`[Y`hYb`k`Y]h`\\]b`U`g`X]Y`U[[fYgg] ghYb`]b
]`fYb`6Ya`Ø`i`b[Ybž`g]W`Yfni`ghY`Ybž`XUgg`5b`Y[Yf`X]Y`Ui`Z`?`fmdhc
ZÄ`][Yb`GhYi`Yfb`nU`\\Yb`8`Yf`≠`G`\\Uh`YfZc`[fY]W`[Yf]W`h]W`Y
J`cf`UXi`b[Yb`\\YfUi`g[Y[YVYbž`X]Y`U`g`æ`\\b`8`cY`Gi`a`a`cbg
VY`_`Ubbh`g]bX`i`bX`j`Yfk`YbXYh`k`YfXYbž`k`Ybb`XYf`BUa`Y`Y]bYf
DYfgcb`i`bVY`_`Ubbh]ghž`i`a`5b`Y[Yf]bZc`fa`Uh]cbYb`j`cb`XYb`?`fmdhc!
6ØfgYb`7c]bVUgYž`?`fU`_`Yb`i`bX`Dc`cb]Yi`ni`Yf`\\U`hYb`"

8]YgY`8`UhYb`k`i`fXYb`j`Yfk`YbXYhž`i`a`≠Zc`fa`Uh]cbYb`ni
ØVYfd`fØZYbž`X]Y`j`cb`<i`bXYfhhUi`gYbXYb`j`cb`?`fmdhc!`≠j`Yghc`fYb`Ub

XYb`≠G`ØVYfa]hY`h`k i fXYbž`i bX`i a `l bgh]a a][_Y]hYb`ni
]XYbh]Z]n]YfYb"" 9g`k Uf`gY`f`YfZc`[fY]W`ž`X]Y`@Yi hY`XUni`ni
Vf]b[Ybž`g]W`ni`a Y`XYb`i bX`Y]bY`[Y`ÀbXYfhY`GhYi YfYf`_`Àfi b[
UVni [YVYb ž`gU[h`G`U`i b`<i b`Ymž`GhYi YfVYfU`hYf`VY]`H`ca gcb
F`Yi hYfg`HUI / `5W`Łi bh]b[`a]h`G]m`]b`5h`Ub`hU"

⇒a `A U]`[UV`XYf`≠G`VY`_`Ub`bhž`XUgg`Yf`Y]b`GdYn]U`]ghYbhYUa`ni f
5bU`mgY`XYf`6`c`W`W`U]b` `XYf`HYW`bc`c`[]Y`ni f`Ghfca j Yfgcf[i b[
j cb`? fmdhc k `À`fi b[Yb` `Y]b[Yf]W`hYh`U`hž`i a
GhYi Yf`]bhYfn]Y`i b[`ni`VY`_`Aa dZYb""8]Y`A]gg]cb`Y]» h`C`dYfU]cb
<]XXYb`HfYUgi fY"

I bhYfXYggYb`g]bX`]a `F`U`a Yb`XYg`≠ZfUghfi`_`hi f[YgYhnYg`j cb
Df`Àg]XYbh`6]XYb`]b`<`Ø`Y`j cb`%`6]`]cb`I`G!8c`Uf`D`ÀbY`]a` ; Ub[Yž
Yg`ZØf`? fmdhc!6fc`_`Yf`ni a` ; YgYhn`ni`a UW`Ybž`X]Y` ; Yk]bbY`]`fYf
?i bXYb`X]fY`_`h`Ub`XYb`≠G`ni`a Y`XYb""8Yf` ; YgYhnYb`hk i fZ`XYf
DfchYgh[Y`Yi` `XYf`? fmdhc]bXi ghf]Y`Ui g[Y`Ògh`U`hž`k]fX`Yg`XYa
≠G`Yf`Y]W`hYfbž`≠Zcfa`Uh]cbYb`ni`gUa`a Y`b`U`g`Xi fW`X]Y
; Yf]W`hY"

K Ug`k]f`]b`X]YgYa`6YfY]W`gY`Yb`k YfXYbž`]gh`Y]bY`Yfnk i b[YbY
9]b`U`hi b[ž`X]Y`g]W`XYi`h`]W`j cb`XYa`_`U`_`hi Y`Yb`GmghYa
i bhYfgW`Y]XYhž`? fmdhc! ; Yk]bbY`ZfY]k]`][`ni`a Y`XYb ž`gU[h
<i b`Ym"

?f]h]_`Yf`Uf[i a Ybh]YfYbž`XUgg`X]Y`8YZ]b]h]cb`XYg` ; YgYhnYb`hk i fZgž
k Ug`Y]bYb`6fc`_`Yf`Ui ga UW`hž`ni`k`Y]h[YZUggh`]gh`i bX`XYa
Ui ZghfYVYbXYb`GY`_`hc`f`gW`UXYb`_`Òb`bhY""5VYf`hf`c`h`k`Ø`hYbXYf
@cVVmUfVY]h`g]Y`h`Yg`gc`Ui`gž`U`g`k`Ø`fXY`Yg`Xi`fW`[Y`Yb"

≠` ; fc» Vf]hUbb]Yb`U`h`X]Y`<`A`F`7`]b`XYb`Y`h`hYb`]`U`fYb`]`fY
6Yž [b]ggY`ni a`GUa`a Y`b`j cb`≠Zcfa`Uh]cbYb`[Ybi`h`hž`i a`@]ghYb
j cb`? fmdhc!≠j YghcfYb`j cb`6`ØfgYb`Ubni`ZcfXYfb"

⇒a` `U`f`&\$%-` []b[Yb`X]Y`6`ØfgYb`7c]bVUgYž`YHcfc`i bX`79L`"€`a`]h
XYf`B`UW`f]W`h`Ub`X]Y`6`ØfgYž`XUgg`<`A`F`7`6Ybi`h`nYfXU`hYb
Ub[YZcfXYfh`U`hYž`i a`≠j YghcfYb`ni`U[Ybž`X]Y`Vf]h]gW`Y`GhYi`Yfb
gW`i`XYb""I`bX`X]Y`GhYi`YfVY`Ø`fXY`U`VY`a`]h`gc`W`Yb

≠Zcfa Uh]cbgZcfXYfi b[Yb`k Y]hYf[Ya UW hž`gU[h`5XUa `7fU[[gž
DUfhbYf`VY]`F D7ž`Y]bYf`5bk U`hg_Ubn`Y]ž`X]Y`ZØf`Y]bY`? fmdhc!
5i ghUi gWXd`UhhZcfa `U[]Yfh"

8]Y`GhYi YfVY\ ÕfXYb`VYn]Y\Yb`Ui W`8UhYb`ØVYf`? fmdhc!
≠j YghcfYb`]b`X]Y`≠Zcfa Uh]cbYb`Y]bž`X]Y`g]Y`[fYbnØVYfgWfY]hYbX
gUa a Y`b`"9]bY`5bZfU[Y`ni f`≠Zcfa Uh]cbgZfY]\Y]h]j cb` ; \Yfgcb
Gc`]W]hcfgž`Y]bYf`5bk U`hg_Ubn`Y]ž`VYghÅh][hY`]b`X]YgYa `]U\ fž`XUgg
X]Y`< A F 7`j]\fY`6YZ [b]ggY`[Ybi hnh`\UhhYž`i a `≠Zcfa Uh]cbYb`ØVYf
? fmdhc! ≠j YghcfYb`]b`i bX`Ui » Yf\U`V` ; fc» Vf]hUbb]Ybg`ZØf`X]Y
GhYi Yf`U\ fY`&\$%+`#%, `V]g`Y]bgW`Y]» `]W`&\$%-`#&\$`ni`gUa a Y`b`"Ni
XYb`8YhU]`g`[Y\ ÕfhYb`X]Y`BUa Yb`i bX`5XfYggYb`XYf`5b`Y[Yf`i bX
XYf`K Yfh`XYf`[Y\U`hYbYb`? fmdhc!5ggYhg"

< A F 7`gU[hž`XUgg`Yg` fY[Y`a`À»][`8UhYb`Ui g`Y]bYf`F Y]\Y`j cb
≠Zcfa Uh]cbgei Y`Yb`gUa a Y`h`i bX`XUVY]`X]Y`6YZ [b]ggY`XYg
DUf`Ua Ybhg`bi hnh`8]Y`8UhYb`k YfXYb`j Yfk YbXYhž`i a`X]Y
≠hY[f]hÅh`XYg`GhYi YfgmghYa g`ni`j YfVYggYfb`i bX`X]Y`Yb][Yb`ni
]XYbh]Z]n]YfYbž`X]Y`]\fY` ; Yk]bbY`b]W`h`XY`_`Uf]Yfh`\UVYb` "

:]bUbnVY\ ÕfXYb` \ UVYb`A Ø\ Yž`GWf]hh`ni \ U`hYb

Hfchn`k]YXYf\c`hYf`8UhYbYf\YVi b[Yb`VYk Y[h]g]W`X]Y`6fUbW`Y`gc
gW`bY`ž`XUgg`6YUa hY`]a`5`][Ya Y]bYb`[Ynk`i b[Yb`g]bXž`]b`Y]bYa
Gd]Y`ž`XUg`bcW`Y]bYb`Ub[Yb`K Y[]c`f`g]W` \Uhž`Ui Zni` \c`Yb"

6Y]`XYf`6Y\UbX`i b[]j cb`? fmdhc!J Yfa Õ[Ybgk YfhYb`U`g`9][Ybhi a
ZØf`GhYi Yfnk YW`Y`j YfZc`[h`XUg`j YfY]b][hY`? Õb][fY]W`Y]bYb
UbXYfYb`5bgUhn`U`g`8Yj]gYbVYghÅbXYž`VY]`XYbYb` ; Yk]bbY`_Y]bY
7 ; H`Ubn]Y\Ybž`k Ybb`g]Y`ZØf`dYfgÕb`]W`Y`5i g[UVYb`Ui » Yf\U`V`XYg
J YfY]b][hYb`? Õb][fY]W`g`j Yfk YbXYh`k YfXYb`"5VYf`k]W`h][Y
fYW`h]W`Y`8YZ]b]h]cbYb`k]Y`Yhk U`ZØf` j]fhi Y`Y`K`À\fi b[`a`ØggYb
bcW` ; YgYhn`k YfXYb`"

≠nk]gW`Yb`\Uh`X]Y`fUgUbhY`9bhk]W`_i b[`XYg`GY`_hcf`g`ni a`6Y]gd]Y`
XUni`[YZØ\fhž`XUgg`Y]b`[Ubn`bYi Yf`GY`_hcf`YbhghUbXYb`]ghž`]b`XYa
J Yfa Õ[Ybgk YfhY`c`bY`a YbgW`]W`Y`J Yfa]hh`Yf`[Y`_Ui Zhž`j Yf`_Ui Zhž`

j Yf]Y\Yb'i bX'[Y]Y\Yb'k YfXYb'_ÖbbYbž'bi f'a]h
j cfdfc[fUa a]YfhYb'5'[cf]h\ a Yb"8]YgY'XYnYbhfU`g]YfhY
:]bUbn]bXi gh]Y`gh]b'bi f'Y]bYa 'š\ f'Ui Z*) 'A]`]UfXYb'i G!8c`Uf
Ub[Yk UW\gYb"

⇒a 'A U]`fY]W\hY`Y]bY'; fi ddY`j cb'6YZØfk cfhYfb`j cb
?fmdhc k Å\fi b[Yb'Y]bY'?`U[Y'[Y[Yb'X]Y`i G!GhYi YfVY\ÖfXYb'Y]b
i bX`VY\Ui dhYhYž'XUgg`X]Y`J YfY]b][hYb`GhUUhYb`Xi fW\`XYb
J Yfgi W\ž'GhYi Yfb'Ui Z; Yk]bbY`Ui g`bYi `YfghY`hYb'X][]h`Yb
A ØbnYb`ni `Yf\YVYbž`j Yfgi W\Ybž`XUg
6i bXYgY]b_ca a YbghYi Yf[YgYhn`ni `bi hnYbž'i a `Yhk Ug`bcW\`b]Y
XU[Yk YgYbYg`ni `hi b" k Ug`Y\Yf`_fYUh]j Y`HÅh[_Y]h`U`g`9]b_ca a Yb
VYghYi Yfh "

Ÿ\ b`]W\Y`GhfY]h][_Y]hYb`XØfZhYb`Ui W\`UbXYfgk c`YbhghY\Ybž`XU`X]Y
⇒Xi ghf]Y`X]Y'; fYbnYb`XYf`VYghY\YbXYb'; YgYhn[YVi b[`Ui g`chYh
i bX`X]Y`Hc`YfUbn`XYf`bUh]cbU`Yb'; YgYhn[YVYf`i bX`HYW\bc`c[]Y
bYi Y`DfcXi _hY`Yfj cfVf]b[h"9]b`?fmdhc!9! dYfhY`gU[hY` : H`A cbYmž
XUgg`ghÅbX][`bYi YfY`?fmdhc!5ggYhg`cb`]bY`_Åa Ybž`X]Y`Yg`XYb
GhYi YfVY\ÖfXYb`YfgW\k YfYb`k ØfXYbž; Y`XghfÖa Y`ni
YbhgW\`ØggY`bž[YgW\k Y][Y`XYbb`GhYi Yfb`ni `Yf\YVYb"

9g'[]Vh]j]Y`Y`XUHybgW\i hnVYnc[YbY`6`cW_W\U]bg"9]b`GnYbUf]c
]ghž`XUgg`a Y\ f'; Y`XYf`]b`df]j UhY`7c]bg`Z]Y» Yb` ž`gU[h`X]Y`DYfgcbž
X]Y`b]W\h'[YbUbbh`k YfXYb`k c`hY" 8]Y`U`[Ya Y]bY`⇒XY`]ghž`XUgg
?fmdhc`gW\`YW\h`ZØf`XYb`GhUUh]gh" GcVU`X`XYf`GhUUh`gY]b`Y][YbYg
; Y`X`b]W\h`a Y\ f`_cbhfc``]Yfhž`j YfgW\k]bXYb`U`X]YgY
GhYi YfY]bbU\ a Yb"

9]b`k Y]hYfYg`[fi bX`Y[YbXYg`i bX`i b[Y`ØghYg`DfcV`Ya `VYhf]Zh`X]Y
F YW\hgdFYW\i b[ž`Y]bY`_b]Z][Y`9bhgW\Y]Xi b[`]b`Y]bYa `A Uf_hž`XYf
b]f[YbXk c`cZZ]n]Y``UbgÅgg][`]gh"

6f]h]gW\Y`6Y\ÖfXYb`g]bX`XYf`5bg]W\hž`XUgg`XYf`GhUbXcfh`XYg
9][YbhØa Yfg`XYf`GW\`ØggY``]gh"5VYf`dfcZYgg]cbY``Y
Cf[Ub]gUh]cbYb`k]Y`GhYd`UVYb`Uf[i a Ybh]Yfhž`XUgg`X]Y`5bg]W\h
j cb`<A F 7`Ui ZdfU_h]gW\Yf` 6Yei Ya `]W_Y]h`i bX`b]W\h`Ui Z
; YgYhn`VYfi `h`i bX`]bgVYgcbXYfY`k Ybb`?fmdhc k Å\fi b[Yb`j cb

Y]bYf'6ÖfgY'cXYf'Y]bYa 'JYfk U\fyf'[Y\U'hYb'k YfXYbž'_ÖbbhY'X]Yg
ZU'gW\ 'gY]b"

8]Y'<A F 7'Uf[i a Ybh]Yfhž'XUgg']\fy'GW\ 'i ggZc`[Yfi b[ž'XUgg'? fmdhc!
5ggYhgž'X]Y'j cb'Y]bYa 'Vf]h]gWYb'9]bk c\byf'[Y\U'hYb'k YfXYbž
g]W\ 'ja 'JYfY]b][hYb'?Öb][fY]W\ 'VYZ]bXYbž'ni 'XYb'a Y]ghYb
HfUbgU_h]cbYb'dUggh"'8 Ug':]bUbnUa h'gU[hY'[Y[YbØVYf': H'A cbYmž
Yg'k c''Y' XYb'A YbgWYb'\Y'ZYbž'\fy'GhYi YfUb[Y'Y[Yb\Y]hYb
f]W\ h]['ni 'a UWYbž'i bX['Ui Vhž'XUgg'X]Y'GhYi YfnU\Yf'Yg'Ui W\
f]W\ h]['a UWYb'k c''Yb "'9g\Y]» higY]bY' XYhU]'Y]YfhY'5b'Y]hi b['Qg
XYg][bYXQi a 'i bgYfYb'?i bXYb'ni '\Y'ZYbž'XUg'GhYi YffYW\ h'Ui Z
'? fmdhc!5ggYhg'_c ffY_h'Ubni k YbXYb "

æbUh\Ub'DYU''ž'GhYi YfX]fy_hc'f'VY]'? DA ; 'I ? ž'a Y]bhž'XUgg'gc'WY
9f_`Äfi b[Yb'b]W\ h'Ui gfY]WYb"'9f'gU[h' 8 Ug'; YgYhn'a i gg'g]W\
Yb'k]W_Y'bž'i a 'X]Y'G]hi Uh]cb'ni '_cX]Z]n]YfYb"'5''YfX]b[g'VYk Y[h
g]W\ 'X]Y'? fmdhc k Y'hgc'gW\ bY''ž'XUgg'Yg'UVni k UfhYb'V'Y]Vhž'cV'XYf
' ; YgYhn[YVi b[gdfcnYgg'a]h\U'hYb'_Ubb"

8]Y'< YfUi gZc fXYfi b['ZØf'? fmdhc! =bj Yghc fYb

8]Y'HUhgUWYž'XUgg'? fmdhc k Ä\fi b[Yb'bcW\ 'bYi 'g]bXž'ghY''h'Ui W\
X]Y'cZhi bYfZU\fybYb'5b'Y[Yf'j cf'<YfUi gZc fXYfi b[Ybž'X]Y]'b'XYb
A Uf_h'[Ync[Yb'k YfXYb"

I a 'ni 'j Yfa Y]XYbž'XUgg'X]Y'GhYi YfVY\ÖfXYb']b'? cbZ]_h'[YfUhYbž
a ØggYb'X]Y'6Øf[Yf'ni bÄW\ gh']\fy'GhYi YfdZ]W\ hYb'_YbbYb'i bX
YfZØ''Yb'fb]Y\Y'? UghYb'ē''6YfUhf'k UfbYb'YXcW\ ž'XUgg'j]Y'Y'? fmdhc!
=bj Yghc fYbž'X]Y'j cb'XYf'6Y[Y]ghYfi b['i a '6]hW\]b'Ub[Ync[Yb
k YfXYbž'a Ö['W\ Yfk Y]gY'j Ö''['i bk]ggYbX'g]bXž'XUgg'g]Y'GhYi Yfb
Ui Z'? fmdhc! ; Yk]bbY'nU\Yb'cXYf'Y]bYb'GhYi YfVYf]W\ h'Y]bYf]WYb
a ØggYb"'5bXYfY'k]ggYb'Ygž'ghYW_Yb'UVYf'Y]bZUW\ 'XYb'? cdZ]'b'XYb
GUbX"

5'g'? fmdhc k Ä\fi b[g]bj Yghc f'_ÖbbhYb'G]Y'ØVYf'Y]bYb
'Äb[YfYb'NY]hfUi a 'ØVYf'X]Y'GW\ i 'hYf'gW\ Ui Yb

9]b][Y`Y]bnY`bY`GhYi YfnU\`Yf`k YfXYb`j`cfYfgh`Y]b`5i` [Y
ni`XfØW_Ybž`V]g`g]Y`g]Y`Y]b`c`Yb`i`bX`Y]bYb`VØgYb`GW`c`W_
VY`_ca`a`Yb`ž`d`f`c`[`bc`gh]n]Yfh`7`\Uf`c`hY`GU`UVUb`_ž`ghYi`Yf`]W`X`Y`
DUf`hb`Yf]b`VY]`?`UhhYb`A`i`W`]b`F`cgYba`Ub`"

K`U`U`W`Y`fa`i`h][`h`Y`XYbž`XYf`_Y]bY` ;`Yk`]bbY`XY`_Uf]Yfh`\Už`Y]bYb`
d`f`c`Z`Y`gg]c`b`Y`Y`b`6`Y`f`U`h`Y`f`U`i`Z`ni`g`i`W`X`Yb`"9`g`g`Y]`]a`a`Y`f`V`Y`gg`Y`f`ž`X`Y`f`
<`A`F`7` :`Y`\`Y`f`a`]hni`hY]`Ybž`U`g`ni`k`Uf`h`Y`bž`ZØ[`h`Y`f`\]bni`ž`X`U`X`Y`
G`h`f`U`Z`Y`b`g`h`Y][`Ybž`k`Yb`b`Y]bY`D`Y`f`g`c`b`Y`b`h`X`Y`W`_`h`k`]f`X`ž`U`b`g`h`U`h`i`g]W`X`
Z`f`Y]k`j`][`ni`a`Y`X`Y`b`"

8`U`g`V`f]h]g`W`X`Y` :`]b`U`b`n`U`a`h`_`U`b`b`i`Δ`f`Y`G`h`Y`i`Y`f`U`b`[`Y`Y`[`Y`b`\`Y]h`Y`b`j`]Y`f`
Δ`\`f`Y`U`b`[`U`V`X`Y`a`i`9`b`X`Y`X`Y`g`G`h`Y`i`Y`f`U`\`f`Y`g`d`f`Ø`Z`Y`bž`U`i`Z`X`U`g`g]W`X`
X]Y`J`Y`f`U`b`U`[`i`b`[`V`Y`n]Y`\`h`"8`]Y`g`Y`Y`f`\`Ø`\`h`g]W`X`U`i`Z`g`Y`W`X`g`Δ`\`f`Y`ž`
k`Y`b`b`Y]bY`D`Y`f`g`c`b`U`g`Z`U`\`f`À`gg][`c`X`Y`f`Z`U`\`f`À`gg][`Y]b`[`Y`g`h`i`Z`h`k`]f`X`ž`
i`b`X`g`c`[`U`f`U`i`Z`&\$`Δ`\`f`Y`ž`k`Y`b`b`X`Y`f`G`h`Y`i`Y`f`d`Z]W`X`h][`Y`X`Y`
C`Z`Y`b`Y`[`i`b`[`V`Y`k`i`g`g`h`j`Y`fa`]Y`X`Y`b`\`U`h`"

5`g`?`f`m`d`h`c`k`À`\`fi`b`[`g]b`j`Y`g`h`c`f`_`Ø`b`b`h`Y`a`U`b`Ø`V`Y`f`Y]b`Y`b`À`b`[`Y`f`Y`b`
N`Y]h`f`U`i`a`Ø`V`Y`f`X]Y`G`W`i`h`Y`f`g`W`U`i`Y`b`ž`k`U`f`b`h`9`h`Y`f]b`[`h`c`b`"K`Y`b`b`
G]Y`Y]b`Y`b` :`Y`\`Y`f`[`Y`a`U`W`X`h`\`U`V`Y`b`i`G]Y`_`Ø`b`b`Y`b`Y]b`Y`b`G`W`X`Y`»`_`Y`f`
V`Y`_`ca`a`Y`b`Ø`i`f`h`Y`f`X`c`k`b`h`Y`][`b`Y`Q`

9`h`Y`f]b`[`h`c`b`\`U`h`V`Y`a`Y`f`_`hž`X`U`g`g`j`]Y`a`Y`\`f`?`f`m`d`h`c`!`Δ`j`Y`g`h`c`f`Y`b`g]W`X`
G`c`f`[`Y`b`a`U`W`X`Y`bž`X`Y`f`<`A`F`7`ni`a`Y`X`Y`b`i`b`X`]\`f`Y`G`h`Y`i`Y`f`b`ni`
V`Y`f`Y`W`X`b`Y`b`"

Δ`X`Y`b`@Y]h]b]Y`b`X`Y`f`<`A`F`7`\`Y`»`h`Y`gž`X`U`g`g`5`b`Y`[`Y`f` ;`Yk`]bbY`
V`Y`f`Y`W`X`b`Y`b`i`b`X`X`Y`h`U]`Y`f`h`Y`5`i`Z`h`Y]W`X`b`i`b`[`Y`b`ZØ`f`Y`X`Y`b`<`U`b`X`Y`
ZØ`\`f`Y`b`a`Ø`g`g`Y`b`"8`]Y`g`_`U`b`b`g`W`X`k`]Y`f][`g`Y]bž`]b`g`V`Y`g`c`b`X`Y`f`Y`k`Y`b`b`
9]b`n`Y`d`Y`f`g`c`b`Y`b`H`f`U`X]b`[`!`6`c`h`g`j`Y`f`k`Y`b`X`Y`bž`X]Y`h`À`[`]W`X`H`U`i`g`Y`b`X`Y`
j`c`b`H`f`U`X`Y`g`U`i`g`ZØ`\`f`Y`b`_`Ø`b`b`Y`b`"ca`d`Y`I`Y`F`Y`[`Y`b`X`Y`W`_`Y`b`
 ;`Yk`]bbY`]b`5`V`\`À`b`[`][`_`Y]h`X`U`j`c`b`U`V`ž`c`V`J`Y`fa`Ø`[`Y`b`g`k`Y`f`h`Y`U`a`
g`Y`V`Y`b`H`U`[`i`b`X`#`c`X`Y`f`]b`b`Y`f`U`V`Y]b`Y`g`N`Y]h`f`U`i`a`g`j`c`b`" `\$`H`U`[`Y`b`
[`Y`_`U`i`Z`h`i`b`X`j`Y`f`_`U`i`Z`h`i`f`X`Y`b`"

5b`Y[Yf`j Yf`UggYb`g]W`cZi`Ui Z]\fYb`5i ghUi gW`ZØf
5i ZnY]W`bi b[Yb`"8]Yg`_ØbbhY`YXcW`f]g_Ubh`gY]bžXU`6ØfgYb
a Ò[`]W`Yfk Y]gY`i bhYf[Y`Yb`cXYf`8UhYb`b]W`h`Ub[Y`[Ybi [
Ui ZVYk U`fYbž`ZØ[h`GU`UVUb`_`]\bni "

8 Ug` ðbcj Uh]cbghYa dc`V]f[h`Ui W`dchYbn]Y`Y` : U`ghf]W_Y`ZØf
ðj Yghc`fYb`"B: Hg`cXYf`b]W`h`Zi b[]V`Y`Hc`_Yb`g]bX`\Yi hY`Y]b
6Y]gd]Y`ZØf`Y]bYb`A]`]UfXYb!8c`Uf!A Uf`hž`XYb`Yg`j cf`k Yb][Yb
ð\`fYb`bcW`b]W`h`[UV`" ð`X]YgYa` ð\`f`\Uh`X]Y`?i bghk Y`h`X]YgY
X][]hU`Yb`D`UhhZcfa Yb`Ub[Ybca`a Yb`i bX`bYi Y`K Yf`_Y`[YgW`UZZYbž
X]Y`ZØf`X][]hU`Y`A ØbnYb`j Yf`_Ui Zh`k YfXYb`"8Yf`FY`_cfX`]Y[h`VY]
ZUgh`+\$`A]`]cbYb`i G!8c`Ufž`Y]bY`X][]hU`Y`7c`U[Y`XYg
nY]h[YbØgg]gW`Yb`?Øbgh`Yfg`6YYd`Y`"

HY]`j cb`6YYd`Yg`) "\$\$\$`8Umg ž`XUg`X]YgYg`ð\`f`ZØf`ZUgh`+\$
A]`]cbYb`i G!8c`Uf`j YfghY][Yfh`k i fXY`|` ` 7`\f]gh]Yg` ða U[Yg`j]U
F9I H9FG

9g`[]Vh`Y]bY`J]Y`nU`j cb`5_h]cbYbž`X]Y`Y]bY`J Yf`Ài » Yfi b[
Ui g`ØgYb`_ØbbYbž`XUfi bhYf`XUg`GW`Yb`_Yb`j cb`?fmdhc!5ggYhgž`X]Y
J Yfk YbXi b[]j cb`?fmdhc`ni a`?Ui ZUbXYfYf`5ggYhg`i bX`XYf
5i ghUi gW`nk]gW`Yb`j YfgW`]YXYbYb`?fmdhc!5ggYhg`" @YhnhYfYg
_Ubb`j]Y`Y`@Yi hY`Yfk]gW`Yb` ž`gU[h`DYU`j cb`?DA ; "

B UW`XYb`@Y]h`]b]Yb`XYf`< A F 7`"Øgh`X]Y`J Yf`Ài » Yfi b[`Y]bYg
X][]hU`Yb`J Yfa Ò[Yb`gk Yf`hg`Y]bYb`7; H!5bgdfi W`Ui g`" @Ui h`DYU`
[]h`X]Yg`Ui W`XUbbž`k Ybb`X]Y` ð\`UVYf`j cb`Y]bYa`k YW`gY`b`W`b]b
ni `Y]bYa`UbXYfYbž`Ui W`k Ybb`Yg`g]W`i a`GhUV`YW`b]bg`\UbXY`hž
gdYn]Y`Y`ghUV]`g]Yfh`Y`X][]hU`Y`A ØbnYbž`X]Y` :]Uh`K À\fi b[Yb`i bX
j c`Uh]Y`?fmdhc!9]b\`Y]hYb`k]Y`6]hW`b]b`j YfV]bXYb`"

ð`Øb[YfYf`NY]h`_cbbhYb`9][Yb`Øa Yf`]fY`X][]hU`Yb`A ØbnYb
j Yf`Y`\Yb`cXYf` ghYW`Yb`i bX`Y]bY`F`YbX]hY`Yfn]Y`Ybž`Y]bY
5_h]j]h`hž`X]Y`a Ò[`]W`Yfk Y]gY`bYi Y`J YfV]bX`]W`_Y]hYb`gW`UZZYb
_ØbbhYž`ZØ[h`DYU`j cb`?DA ; "

9]b`k Y]hYfYg`dchYbn]Y`Yg`DfcV`Ya `ZØf`5b`Y[Yf`VYghY\h`XUf]bž
XUgg`g]Y`a Ò[`]WYfk Y]gY`Y]bYb` ; Yk]bb`i bX`Y]bY`7; H!
J YfdZ]W`hi b[`Ui ga UWYbž`UVYf`ZYghghY`Ybž`XUgg`]\f`DcfhZc`]c
ni a `NY]hdi b`h`XYf`NU\`i b[`XYf`GhYi Yfb`Ub`K Yfhj Yf`cfYb`\Uh
i bX`XU\Yf`b]W`h[Ybi [`k Yfh]ghž`i a `X]Y`J YfV]bX`]W`_Y]h`ni
XYW`_Yb"

8i `_Ub bgh`XY]bY`GhYi YffYW`bi b[`b]W`h`i]b`? fmdhc k `À\fi b[
VYnU\`Ybž`U`gc`a ØgghYgh`Xi `j Yf`_Ui ZYb`Qc`h\Yf`UggYhg`]bWi X]b[
Wfmdhc`X]Y`gY`VghY]bY`GhYi YfVY`Ughi b[`Ui g`ÒgYb`_`ÒbbhYž`U`g`cV
a Ub`g]Y`[Y[Yb`6Uf[Y`X`Y]bhUi gWYb`k ØfXYž`XUg`U`g`J YfÀi » Yfi b[
[Y`hYb`k ØfXY` ž`gU[h`GU`UVUb`_"

5VYf`hfc`h`X`Yf`G`W`k]Yf][`_Y]hYb`[]Vh`Yg`Y`X`Yb`5b`fY]n`ZØf
`b] Yghc`fYbž`? fmdhc! 6YhfY]VYf`i bX`GhYi YfVYUa hYž`U`Y`Ui Z`XYa
@Ui ZYbXYb`ni `V`Y]VYb``8U`XYf`? fmdhca Uf`h`Y`hnh`Ui Z`ZUgh`&
6]`]cbYb`l G!8c``Uf`[YgW`À`mh`k]fXž`g]bX`X]Y`dchYbn]Y`Yb` ; Yk]bbY
`i bX`X]Y`XUa]hj YfVi bXYbYb`GhYi Yfj YfV]bX`]W`_Y]hYb` `Y]bZUW`
ni `[fc» ž`i a `g]Y`ni `][bcf]YfYb"

E i Y`Y. :]bUbW]U`H]a Yg

8YhU]`g

6Ygi W`Yb`G]Y`i bg`Ui Z.`_fmdhc!bYk`g"Uh