

F \ Y]b!BYW_Uf! ? fY]g. '9]b 'F Y]gYZØ\ fYf`ni
BUhi fž' ? i `]bUf]_`i bX' ? i `hi f

9bhXYW_Yb`G]Y`XYb`F \ Y]b!BYW_Uf! ? fY]g. 'a U`Yf]gWXY`GhÅXhYž
_i `]bUf]gWXY`GdYn]U`]hÅhYbž`VYY]bXfi W_YbXY`BUhi fž
_i `hi fY`Y`GWÅhnY`i bX`gdUbbYbXY`J YfUbbghU`hi b[Yb`k UfhYb
Ui ZG]Y`



K]`_ca a Yb`ja `F \ Y]b!BYW_Uf! ? fY]g` `Y]bYa `XYf`\]XXYb`[Ya g
8Yi hgW`UbXgž`k c`UhYa VYfUi VYbXY`@UbXgW UZhYbž`W Ufa UbhY
GhÅXhY`i bX`Y]b`fY]W`Yg`_i `hi fY`Yg`9fVY`XUfUi Z`k UfhYbž`Yb`hXYW_h
ni `k YfXYb`"9]b[YVYhhYhink]gW`Yb`XYa `gdY`hU`i `ÀfYb`CXYbk U`X
i bX`XYb`gUbZhYb`<Ø[Y`b`XYf`J cfXYfdZU`nž`V]YhYh`X]YgYf`@UbX`fY]g
Y]bY`dYfZY`hY`?ca V]bUh]cb`Ui g`BUhi fž` ; YgW`]W`hY`i bX` ; Ybi gg"
<]Yf`[]VhYg`gc`j]Y`a Y`f`U`g`bi`f`X]Y`VYfØ`a`hYb`BUW`VUfghÅXhY
<Y]XY`VYf`[`i bX`A`Ubb`Y]a`"CV`G]Y`Y]b` : Y]bgW`a`YW`Yfž
; YgW`]W`hg`]YV\UVYf`cXYf`BUhi`f`]YV\UVYf`g]bXž`XYf`F \ Y]b!BYW_Uf!
?fY]g`VY[Y]ghYfh`YXYb`a`]h`gY]bYb`j]Y`Z`h[Yb`5b[YVchYb`"

⊕`X]YgYa`5fh]_Y`bY`a`Yb`k`]f`G]Y`a`]h`Ui`ZY]bY`9f`_i`bXi`b[`ghci`f`

Xi fW`X]YgY`ZUgn]b]YfYbXY`F Y[]cb"K]f`VY[]bbYb`a]h`Y]bYa`6`]W_
Ui ZX]Y`a U`Yf]gW`Yb`Gh`XhY`z`X]Y`a]h`]\fYf`\]ghcf]gW`Yb`5fW`hY`_hi`f
i bX`YVYbX][Yb`5ha`cgd`A`fY`VYghYW`Yb`"5bgW`Y]Y»YbX`Yb`hXYW`Yb
k]f`X]Y`_i`_]bUf]gW`Yb`<`O`Ydi`b`_hY`z`X]Y`G]Y`i`bVYX]b[h`d`f`c`V]YfYb
gc`hYb`":`Ø`f`X]Y`5VYb`hYi`Yf`i`gh][Yb`k`Uf`hYb`a`U`Yf]gW`Y`K`UbXYf!
i bX`F`UXk`Y[Y`X`Uf`Ui`Z`Y`f`c`VY`f`h`ni`k`Y`f`X`Y`b`"K`]f`ghY`Y`b`a`b`Y`b`Ui`W`
X]Y`_i`_hi`fY`Y`b`G`W`A`h`Y`X`Y`f`F`Y[]cb`j`c`f`_`j`cb`A`i`g`Y`Y`b`Ø`V`Y`f`
V`Y`Y]b`X`f`i`W`_`Y`b`X`Y`_`]\]ghcf]gW`Y`Gh`A`h`Y`b`"5i`»`Y`f`X`Y`a`k`Y`f`X`Y`b`k`]f`_`a`b`Y`b`
X]Y`k`]W`h][ghYb`J`Y`f`U`b`g`h`U`hi`b[Yb`i`bX`:`Y`ghY`U`b`g`<`Y`f`n`Y`[Yb`z`X]Y`
X`U`g`[U`b`n`Y`_`A`f`Ø`V`Y`f`Z`Ø`f`5`V`k`Y`W`g`i`b[`]g`c`f`[Yb`"i`b`X`ni`_`[i`h`Y`f`@`Y`h`h`
[Y`V`Y`b`k`]f`_`a`b`Y`b`Y]b`d`U`U`f`:`Y`Y]a`h]d`d`g`z`X`U`a`]h`_`a`f`5i`Z`Y`b`h`U`h`]a`
F`Y]b`!`B`Y`W`_`U`f`!`?`f`Y]g`i`b`j`Y`f`[Y`g`g`]W`k`]f`X`"G`W`b`U`d`d`Y`b`G]Y`g]W`U`g`c`
_`a`f`Y`b`F`Y]g`Y`Z`Ø`f`Y`f`i`b`X`"U`g`g`Y`b`G]Y`i`b`g`[Y`a`Y]b`g`U`a`X]Y`g`Y`
n`U`i`V`Y`f`_`U`Z`h`Y`F`Y[]cb`Y`f`_i`b`X`Y`b`"

9b`h`X`Y`W`_`i`b`[`X`Y`f`a`U`Y`f]g`W`Y`b`G`h`A`X`h`Y`]a` F`Y]b`!`B`Y`W`_`U`f`!`?`f`Y]g`

8`Y`f`F`Y]b`!`B`Y`W`_`U`f`!`?`f`Y]g`]b`6`U`X`Y`b`!`K`Ø`f`h`Y`a`V`Y`f`[`]g`h`Y]b`
Z`U`g`n]b]Y`f`Y`b`X`Y`g`N]Y`"Z`Ø`f`F`Y]g`Y`b`X`Y`z`X]Y`Y]b`Y`?`c`a`V]b`U`h]c`b`Ui`g`
_`]\]ghcf]gW`Y`b`Gh`A`X`h`Y`b`z`a`U`Y`f]gW`Y`b`@`U`b`X`g`W`U`Z`h`Y`b`i`b`X`_i`_hi`fY`Y`a`
F`Y]W`h`i`a`Y`f`Y`V`Y`b`a`Ø`W`h`Y`b`"8]Y`g`Y`F`Y[]cb`z`X]Y`g]W`i`a`X]Y`:`Ø`g`g`Y`
F`Y]b`i`b`X`B`Y`W`_`U`f`[f`i`d`d]Y`f`h`z`V`Y`Y`f`V`Y`f`[h`n`U`_`f`Y]W`Y`W`U`f`a`U`b`h`Y`
Gh`A`X`h`Y`z`Y`X`Y`a`]h`]\f`Y`a`Y][Yb`Y`b`7`_`U`f`U`_`h`Y`f`i`b`X`Y]b`Y`f`J]Y`n`U`_`j`c`b`
G`Y`Y`b`g`k`Ø`f`X][_Y]h`Y`b`"

9]b`Y`X`Y`f`V`Y`_`U`b`b`h`Y`g`h`Y`b`Gh`A`X`h`Y`]b`X`Y`f`F`Y[]cb`]gh`<`Y]X`Y`V`Y`f`["
6`Y`_`U`b`b`h`Z`Ø`f`_`]\f`Y`U`h`Y`i`b]j`Y`f`g]h`A`h`i`b`X`X`U`g`]a`d`c`g`U`b`h`Y`
<`Y]X`Y`V`Y`f`[Y`f`G`W`_`c`g`g`z`n]Y`_`h`X]Y`G`h`U`X`h`H`c`i`f]g`h`Y`b`Ui`g`X`Y`f`[U`b`n`Y`b`
K`Y`h`U`b`"9]b`G`d`U`n]Y`f`[U`b[`Y`b`h`U`b[`X`Y`f`D`]c`g`c`d`_`Y`b`k`Y`[z`Y]b`Y`a`
X`Y`f`g`W`Ø`b`g`h`Y`b`5i`g`g]W`h`g`d`i`b`_`h`Y`z`Y`f`a`Ø[`]W`h`Y]b`Y`b`
U`h`Y`a`V`Y`f`U`i`V`Y`b`X`Y`b`6`]W`_`Ui`Z`X`U`g`G`W`_`c`g`g`i`b`X`X]Y`G`h`U`X`h`i`g`Y`V`g`h`"8]Y`
5`h`g`h`U`X`h`a`]h`]\f`Y`b`Y`b[Y`b`:`U`g`g`Y`b`z`h`f`U`X]h]c`b`Y`Y`b`<`Y]X`Y`V`Y`f`[Y`f`
?`b`Y]d`Y`b`i`b`X`Y]b`Y`f`J]Y`n`U`_`U`b`:`Y`g`W`_`A`Z`h`Y`b`_`A`X`h`i`n`i`a`J`Y`f`k`Y]Y`b`
i`b`X`9`f`_i`b`X`Y`b`Y]b`"

9]b`k`Y]h`Y`f`Y`g`<][\`][\`h]g`h`X]Y`G`h`U`X`h`A`U`b`b`_`Y]a`z`X]Y`j`c`f`U`Y`a`Z`Ø`f`
`]\f`Y`b`ei`U`X`f`U`h]g`W`Y`b`G`h`U`X`h`d`U`b`V`Y``U`b`b`h]g`h`"A`U`b`b`_`Y]a`_`V]Y`h`Y`h`

Y]bY`YVYbX][Y`?i`hi fgnYbY`a]h`nU\`fY]WYb`A i gYbž`XUfi bhYf
XUg`F Y]gg!9b[Y`\`c fb!A i gYi a `i bX`XUg`VYfØ\`a hY`?i bgh\`U`Y
A Ub b\`Y]a ž`XUg`Y]bY`VYY]bXfi W`YbXY`GUa a `i b[`a cXYfbYf`i bX
nY]h[YbØgg]gWYf`?i bgh`VY\`YfVYf[h``8]Y`VYfØ\`a hY`K UggYfgd]Y`Y
]a `@]gYbdUf`_g]bX`YVYbZU``g`Y]b`VY`Y]VhYf`C fhž`i a `ni
YbhgdUbbYb`i bX`X]Y`B Uhi f`ni `[Yb]Y»Yb"

8]Y`GhUXh`@i Xk][g\`UZYb`Ua `F \`Y]bž`X]Y`[YfUXY`Y]ba U`Y]bYb
GhY]bk i fZj`cb`A Ub b\`Y]a `YbhZYfbh``Y[hž`\`Uh`YVYbZU``g`j]Y`ni
V]YhYb``<]Yf`Z]bXYb`6Ygi WYf`XUg`K]`\`Y`a g!< UZYb!; Y`ÀbXYž
Y]b`ZUgn]b]YfYbXYg`6Y]gd]Y`ZØf`a cXYfbY`5fW]hY`_hi f`i bX`i fVUbYg
8Yg][b``5i »YfXYa ``c\`bhY]b`6Ygi W`X`Yf`F Y]b\`c`X`K Øfh\`!< Ui gž
XUg`hc``Y`5i gghY``i b[Yb`nY]h[YbØgg]gWYf`?i bgh`i bX`8Yg][b
V]YhYh"

≈a `a U`Yf]gWYb`GW`f]Yg\`Y]a `_Ubb`a Ub`XYb`fY]nj`c``Yb`Gdi fYb
XYf`K`Y]b`_i`hi f`Zc`[Yb``8]Y`GhUXh``Y[h`Ua `i`i »`XYg`C`XYbk`U`XYg
i bX`]gh`i a [YVYb`j`cb`K`Y]bVYf[Ybž`X]Y`\`Yfj`c`ffU[YbXY`K`Y]bY
dfcXi`n]YfYb``8Yf`C`VYf`_]fWYb`k`Y[`ZØ\`fh`Xi`fW`X]Y`gUbZ`hYb
<Ø[Y``i bX`V]YhYh`gdY`_hU`_i`ÀfY`5i`gV`]W`Y`Ui`Z`X]Y`K`Y]b`UbX`gW`UZh
i bX`X]Y`B`YW`Uf!F`Y[]cb"

9]b`k`Y]hYfYg`↑`k`Y``]gh`<`c`W`Yb`\`Y]a`ž`XUg`b]W`h`bi`f`ZØf`gY]bY
VYfØ\`a`hY`F`Yb`bghfY`W`Y`VY`_Ubb`h`]ghž`gcbXYfb`Ui`W`ZØf`gY]b
W`Ufa`Ub`hYg`GhUX`h`nY`b`hfi`a``8]Y`GhUXh`\`Uh`Y]bY``Ub[Y`;`YgW`]W`hY
i bX`Y`b`h\`À`h`Y]b][Y`\`]ghc`f]gWY`Y`;`YV`Ài`XYž`XUfi`bhYf`X]Y`
7`\`f]ghi`g_]fWY`Y`i bX`XUg`5`hY`F`Uh\`Ui`gž`XUg`c`ZiØVYfgY\`Yb`k`]fXž
UVYf`j`]Y`ØVYf`X]Y`;`YgW`]W`hY`XYf`GhUXh`Yfn`À`\`h"

G]W`Y]b`XYf`B`Uhi`f`ni`j`Yf`YfYb`]gh`Ui`W`Y]b`B`YW`Uf[Ya`Ø`b`X
a`Ò[`]W``8]YgY`_`Y]bY`GhUXh`Ua`B`YW`Uf`di`b`_hY`h`a`]h`]fYa
\`]ghc`f]gWYb`GhUXh`_Yfb`i`bX`XYf`VYY]bXfi`W`YbXYb`?i`i`]ggY`XYf
i`a`Y[YbXYb`6Yf[Y``8]Y`6i`f[V`ÀgYf`j`cb`B`YW`Uf[Ya`Ø`b`Xž`X]Y
fY[Y`a`À»][`Ub`j`YfgW`Y]XYbYb`C`fhYb`]b`XYf`GhUXh`Ui`ZhY`hYbž
j`Yf`Y]\`Yb`XYf`F`Y[]cb`Y]bYb`<Ui`W`j`cb`H`fUX]h]cb`i`bX`@c`_U`_c`c`f]h"

GhUXh	GY\`Ybgk`ØfX][`_Y]hYb`6YgcbXYf\`Y]hYb	
<Y]XY`VYf[<Y]XY`VYf[`Yf	Y`hYghY`i`b]j`Yfg]h`h

GhUXh	GY\Ybgk ØFX][_Y]hYb	6YgcbXYf\Y]hYb
	GW`cggž`5`hY`6fØW_Y	8Yi hgW`UbXg
A Ubb\Y]a	?i bgh\U`Yž @]gYbdUf_	E i UXfUh]gWYf GhUXhd`Ub
@ Xk][g\UZYb	K]\Y`a g!<UZYb! ; Y`ÀbXYž`FY]b\c`X K Øfh!\<Ui g	A cXYfbYf 5fW]hY`hi fgh]`
GWf]Yg\Y]a	K Y]bVUi a i gYi a	K Y]bfY[]cb`Ua CXYbk U`X
<cW_Yb\Y]a	F YbbghfYW_Yž 7\ f]ghi_g_]fWY	F Ybbgdcfh\Y`XYb
BYW_Uf[Ya ØbX	5`hghUXhž`6i f[Ybž BYW_Ufdfca YbUXY	HfUX]h]cb`XYf 6i f[V`ÀgYf

8]Y`A]gW i b[`Ui g`?i `hi fž; YgW]W hY`i bX`UhYa VYfUi VYbXYf
 @UbXgW UZh`a UW h`XYb`F \Y]b!BYW_Uf!`fY]g`ni `Y]bYa
 Y]bn][Ufh][Yb`FY]gYn]Y`"C V`G]Y`Xi fW`X]Y`GhfU» Yb`j cb`<Y]XY`VYf[
 ZUb]YfYb`cXYf`]b`XYf`BUhi f`j cb`BYW_Uf[Ya ØbX`YbhgdUbbYb
 a ØW hYbž`YXY`GhUXh`V]YhYh`\fYb`Y][YbYbž`i bj Yf[Ygg`]W Yb
 7\ Ufa Y`"D`UbYb`G]Y`ÀfY`FY]gY`i bX`YbhXYW_Yb`G]Y`X]Y`J]Y`ZU`hž`X]
 XYf`F \Y]b!BYW_Uf!`fY]g`ni `V]YhYb`Uh`

? i `]bUf]gW Y`< Ø\Ydi b_hY. `GdYn]U`]hÀhYb`XYf
 F Y[]cb

8Yf`F \Y]b!BYW_Uf!`fY]g`]gh`b]W h`bi f`ZØf`gY]bY`a U`Yf]gW Yb
 @UbXgW UZhYb`i bX`W Ufa UbhYb`GhÀXhY`VY`Ubbhž`gcbXYfb`Ui W`ZØf
 gY]bY`_Øgh`]W Y`i bX`j]Y`ZÀ`h][Y`? ØW Y`" <]Yf`hfYZZYb`hfUX]h]cbY`Y
 F YnYdhY`Ui ZfY[]cbU`Y`Ni hUhYbž`X]Y`XUg`<Yfn`Y]bYg`YXYb
 : Y]bgW a YW_Yfg`\Ø\Yf`gW`U[Yb`UggYb`"J cb`\Yfn\UZhYb`GdY]gYb
 V]g`\]b`ni`gØ» Yb`? Øgh`]W_Y]hYb` `X]Y`_i `]bUf]gW Yb`< Ø\Ydi b_hY
 XYf`F Y[]cb`g]bX`Y]b`A i gg`ZØf`YXYb`6Ygi W Yf"

9]bY`XYf`VY`UbbhYghYb`GdYn]U`]hÀhYb`XYg`F \Y]b!BYW_Uf!`fY]gYg
]gh`XYf`<Y]XY`VYf[Yf`Nk]YVY`_i W Yb`"8]YgYf`\Yfn\UZhY
 ?i W Yb`VYghY`h`Ui g`Y]bYa ` _bi gdf][Yb`HY][VcXYbž`XYf`a]hY]bYf
 : Ø`i b[`Ui g`Nk]YVY`bž`6UW`b`i bX`GU`bY`[YZØ`h`k]fX`" ÆYU`ni a
 K Y]bž`VYgcbXYfg`VY]a `hfUX]h]cbY`Yb` Nk]YVY`_i W Yb`i bX

: YXYfk Y]» Yf ' 'Y]bYa '† b[Ybžj Yf[cfYbYb 'HfUi VYbgUZhi 'ja
< YfVgh" 8 cWk 'b]Wk h'bi f']b' < Y]XY'VYf['k]fX'X]YgYf' @YW_YfV]ggYb
[YgWk Åhnh'/Ui Wk ']b 'XYb 'i a ']Y[YbXYb 'GhÅXhYb 'Z]bXYh'a Ub ' \b ']b
j]Y'Yb '6ÅW_YfY]Yb 'i bX'K Y]bghi VYb"

9]b'k Y]hYfYg' <][\][\ h'g]bX'X]Y 'DZÅ`nYf'GUi a U[YbžX]Y 'Y]bY
YWk hY'8Y`_UhYggY'g]bX" 'C Zh'U'g' DZÅ`nYf'? ØbnY' 'VYnY]Wk bYhž
\UbXY'hYg'g]Wk 'XUVY]'i a 'Y]bY'5fh[YZØ`hYf'GWk k Y]bYa U[Ybž'XYf
a]h'? UfhcZY'bž; Yk ØfnYb 'i bX'fY[]cbU'Ya ' : 'Y]gWk 'ni VYfY]hYh
k]fX" '8]YgYg'fi gh]_U'Y'; Yf]Wk h']gh'b]Wk h'bi f']b'XYf'DZU`nž'gcbXYfb
Ui Wk 'ja 'F \ Y]b!BYW_Uf!?'fY]g'k Y]hj YfVfY]hYh'i bX'k]fX'\ Åi Z[']b
XYb'hfUX]h]cbY''Yb'; Ugh\ Åi gYfb'gYfj]Yfh" 6Y['Y]hYh'j cb'Y]bYa
; 'Ug'DZÅ`nYf'K Y]bž'k]fX'XYf'GUi a U[Yb'ni 'Y]bYa 'i bj Yf[Ygg']Wk Yb
; YgWk a UW_gYf'YVb]g"

8]Y'FY[]cb']gh'Ui Wk 'VYfØ\ a h'ZØf'\ fY'K Y]bdfcXi _h]cb" '8]Y
K Y]bVUi [YV]YhY'fi bX'i a 'XYb'F \ Y]b!BYW_Uf!?'fY]g'g]bX'HY]'XYf
fYbca a]YfhYb'XYi hgWk Yb'K Y]bYf[]cbYbž']b'XYbYb'Yi nY''Yb hY
K Y]bYž']bgVYgcbXYfY'F]Yg']b[Y'i bX'; fUi Vi f[i bXYfž'Ub[YVUi h
k YfXYb" 9]b'6Ygi Wk ']b'Y]bYa 'XYf'c_U'Yb'K Y]b[ØhYf']gh'Y]b
UVgc'i hYg'A i gg' <]Yf' _ØbbYb'6Ygi Wk Yf'b]Wk h'bi f'X]Y'K Y]bVYf[Y
VYg]Wk h[Ybž'gcbXYfb'Ui Wk 'Ub'J Yf_cghi b[Yb'hY]'bY\ a Yb 'i bX
a Y\ f'ØVYf'X]Y'K Y]bdfcXi _h]cb'YfZU\ fYb"

8 cWk 'X]Y' _i ']bUf]gWk Yb' < Ø\Ydi b_hY '\ ØfYb '\]Yf'b]Wk h'Ui Z' 8]Y'
VUX]gWk Yb': 'Ua a _i Wk Yb'g]bX'Y]bY'k Y]hYfY'GdYn]U'hÅhž'X]Y
a Ub 'i bVYX]b[h'dfcV]YfYb'gc`hY" 'Y\ b']Wk 'k]Y'Y]bY'D]nnUž'UVYf
XØbbYf'i bX'_bi gdf][Yfž'k]fX'XYf': 'Ua a _i Wk Yb'hfUX]h]cbY''a]h
Y]bYf'7fÅa Y'ZfU]Wk Y!6Ug]gž'Nk]YVY'b 'i bX'GdYW_ 'VY'Y[h'
J Uf]Uh]cbYb'a]h'gU]gcbU'Yb'Ni hUhYb'a UWk Yb'YXYg'9I Ya d'Uf
Y]bn][Ufh][" 'C V']b'Y]bYf[Ya Øh]Wk Yb'; UghghÅhY'cXYf'Ub'Y]bYa
: ccX'Hfi W_ 'k Å\ fYbX'Y]bYg': Ygh]j U'g' 'XYf': 'Ua a _i Wk Yb'[Y\ Øfh
Y]bZUWk 'ni f'fY[]cbU'Yb'? ØWk Y"

: Øf'B UgWk _UhnYb' []Vh'Yg']b'XYf'FY[]cb'Y]bY'J]Y'nU\ 'j cb'gØ» Yb
@YW_YfY]Yb" '8]Y'GWk k Ufnk Å'XYf'?]fgWk hc fhYž'X]Y'g]Wk 'Ui Wk
ja 'F \ Y]b!BYW_Uf!?'fY]g'[fc» Yf'6Y']YVh\Y]h'YfZfYi hž']gh'Y]bY'Ødd][Y
HcfhY'Ui g'GWk c_c'UXYž'GU\ bY'i bX'?]fgWk k UggYf" '8]YgY'ghY\ h'c Zh

Ui ZXYb`8YggYfh_UfhYb`j]b`7UZÅg`i bX`FYghUi fUbhg`i bX`]gh`Y]b
 dYfZY_hYf`5VgW`i gg`ZØf`Y]b`YW_YfYg`9ggYb`"5VYf`Ui W`X]Y`
 <Ai gg`Yf`? i W`Ybž`Y]b`: Ua`]`YbVYhf]YV`Ui g`XYf`FY` []cbž`V]YhYh
 Y]bY`5i gk U\`Ub`\Ui g[Ya UW`hYb`GdYn]U`]hÅhYbž`X]Y`X]Y`gØ»Yb
 NÅ\`bY`XYf`DUggUbhYb`[`ØW`]W`a UW`Yb"

K i gghYgh`Xi ž`XUgg`X]Y`FY` []cb`Ui W`ZØf`]\fY`6]Yf[`ÅfhYb`VY_Ubbh
]gh3`b`XYb`k Ufa Yb`A cbUhYb`j Yfk UbXY`b`g]W`j`]Y`Y`D`ÅhnY`]b`Y]b
 DUfUX]Yg`ZØf`6]Yf`]YV\UVYf`" <]Yf`\UVYb`6Ygi W`Yf`X]Y`A Ò[`]W`_Y]hž
 j YfgW`]YXYbY`fY` []cbU`Y`6]YfY`ni` [Yb]Y»Yb`i bX`g]W`a`]h
 hfUX]h]cbY`Yb`GbUW`g`k]Y`6fYnY`b`i bX`K i fghd`UhhYb`ni`ghÅf`_Yb`"
 8]Y`Gh]a`a`i`b[`]gh]a`a`Yf`ZfY`i`bX`]W`i`bX`Y]b`UXYbX`i`dYfZY`_hž`i`a
 X]Y`c`_U`Y`?`i`hi`f`\Ui`hbU`\ni`Yf`YVYb`"

I a`XUg`_i`]bUf]gW`Y`5b[YVch`XYf`FY` []cb`[YVØ\`fYbX`ni`ZY]Yfbž
 Z]bXYb`Å`f`]W`j`YfgW`]YXYbY`_i`]bUf]gW`Y`: YghY`ghUhh`"8]YgY
 V]YhYb`Y]bY`D`UhhZcfa`ZØf`c`_U`Y`5bV]YhYfž`i`a`]\fY`GdYn]U`]hÅhYb
 ni`dfÅgYbh]YfYb`i`bX`i`a`XYb`6Ygi W`Yfb`XUg`Ni`gUa`a`Ybgd]Y`j`cb
 [i`hYa`9ggYb`i`bX`\cW`k`Yfh][Ya`K`Y]b`bÅ\`Yfni`Vf]b[Yb`"9]b][Y
 XYf`VY_UbbhYghYb`: YghY`g]bX.

: Ygh	8 Uhi a	C fh
<Y]XY`VYf[Yf K Y]ba Uf_h	GYdhYa VYf	<Y]XY`VYf[
DZÅ`nYf`6UW`\Ui gZYgh	ž`]`	<cW`_Yb\`Y]a
K Y]bZYgh`@Y]a Yb	5i [i gh	@Y]a Yb

8]Y`_i`]bUf]gW`Yb`<Ò\`Ydi`b`_hY`XYg`F`Y]b!BYW_Uf!`?fY]gYg`g]bX
 b]W`h`bi`f`Y]b`: Ygh`ZØf`XYb`: Ui`a`Ybž`gc`bXYfb`Ui`W`Y`]bY
 k`i`bXYfVUfY`A`Ò[`]W`_Y]hž`X]Y`FY` []cb`i`bX`]\fY`HfUX]h]cbYb`bÅ\`Yf
 _YbbYbni`YfbYb`"K`Ybb`Xi`U`gc`XUg`bÅW`ghY`A`U`]b`XYf`: Y[YbX
 V]ghž`gc`hYgh`Xi`X]f`X]Y`NY]h`bY\`a`Ybž`X]Y`c`_U`Y`?ØW`Y`ni
 dfcV]YfYb`i`bX`X]Y`\Yfn`]W`Y`: UghZfY`i`bXgW`UZh`ni` [Yb]Y»Ybž`X]Y
 \]Yf`Ub`YXYf`9W`_Y`Ui`Z`X]W`k`UfhYh"

B Uhi f`di`f.`8]Y`gW`Øb`ghYb`K`UbXYf!`i`bX
 F`UXk`Y[`Y`

8Yf\F\Y]b!BYW_Uf!?fY]gž'Y]b[YVYhYh'ink]gWXYb'XYb'a U'Yf]gWXYb
 <Ø[Y'b'XYg'CYbk U'XYg'i bX'XYf'gUbZb'9VYbYb'XYf
 F\Y]bYVYbYž'V]YhYh'Y]bY'J]Y'nU\`j cb'UhYa VYfUi VYbXYb'K UbXYf!
 i bX'FUXk Y[Yb'"8]YgY'FY[]cb']gh'Y]b'k U\fyg'DUfUX]Yg'ZØf
 BUhi f`]YV\UVYf'i bX'V]YhYh'nU\`fY]WXY'A Ò[`]W_X]hYbž'X]Y
 i bVYfØ\fhY'BUhi f'U_hj] `ni `Yf'YVYb"

9]b'VY`Y]VhYf'K UbXYfk Y[`]gh'XYf'BYW_UfghY][ž'XYf'Ui Z'Y]bYf
 GhfYW_Y]j cb'ØVYf'%'&\$'?'`ca YhYfb'X]Y'gW'ØbghYb'5i gV`]W_Y
 Ybh'Ub[`XYg'BYW_Ufg'V]YhYh'"9f'ZØ\fh'Xi fW'a U'Yf]gWXY
 K Y]bVYf[Yž'X]W'hY'K `X'XYf'i bX'WUfa UbhY'8ØfZYf'"8]Y'9hUddYb
 g]bX'i bhYfgW]YX`]W`Ub[`i bX'Ubgdfi W'gj c`ž'gcXUgg'gck c`\`
 [YØVhY'K UbXYfYf'U'g'Ui W': Ua `]Yb'Ui Z]\fY'?cghYb'_ca a Yb"

9]b'k Y]hYfyg'<][\`][\h']gh'XYf'CYbk U'X'<_]b[`HfU]"'8]YgY'Fci hY
 YfghfYW_h'g]W'ØVYf' '\$\$'?'`ca YhYf'i bX'ZØ\fh'Xi fW'hY]`g
 i bVYfØ\fhY '@UbXgW'UZhYbž'X]Y'Xi fW']\fY'\Yff`]WXYb'5i gV`]W_Y'Ui Z
 XYa `gW'ØbghYb'HY]'XYg'CYbk U'XYg'VYghYWXYb'"i bhYfk Y[g'_Ubb
 a Ub'X]Y'J]Y`ZU'h'XYf': `cfU'i bX': Ui bU'VYk i bXYfb'i bX'Ub\U'hYbž
 i a `X]Y`\]ghcf]gWXYb'GY\Ybgk ØfX][_Y]hYb'ni `Yf_i bXYbž'X]Y
 Ybh'Ub[`XYg'K Y[Yg`]Y[Yb'"`

: Øf'FUXZU\fyf'[]Vh'Yg'\Yfj cffU[YbX'Ui g[YVUi hY'FUXk Y[Yž'X]Y
 g]W'Xi fW'X]Y'gUbZb'<Ø[Y`i bX'Ybh'Ub[`XYg'BYW_Ufg
 gW'Àb[Y'b'"8Yf'BYW_UffUXk Y[`]gh'VYgcbXYfg'VY`]YVh'i bX
 YfghfYW_h'g]W'ØVYf'') '\$'?'`ca YhYfž']XYU'`ZØf'Y]bY'YbhgdUbbhY
 FUXh'ci f'cXYf'Y]b'gdcfh]W'Yg'5VYbhYi Yf'"8]Y'Fci hY'ZØ\fh'Xi fW
 Y]b][Y'XYf'WUfa UbhYghYb'GhAXhY'i bX'[]Vh'Y]bYb'9]bV`]W`]b'X]Y
 FY[]cb g'_i `hi fY`Y'i bX'bUhi fbU\Y`≠Ybh]hAh"

<]Yf'g]bX'Y]b][Y'XYf'VYghYb'K UbXYffci hYb'i bX'FUXk Y[Y']a
 F\Y]b!BYW_Uf!?fY]g.

K UbXYf!#FUXk Hmd @Àb[Y 6YgcbXYf\Y]hY
 Y[b

BYW_UfghY][	K UbXYfk Y[	%&\$`_a	K Y]bVYf[Yž 5i gV`]W_Y
CXYbk U'X	K UbXYfk Y[	' \$\$`_a	I bVYfØ\fhY

K UbXYf!# UXk Y[	Hmd	@Àb[Y	6YgcbXYf\Y]hY b
<_]b[`HfU)`			B Uhi fž \]ghc f]gW\Y`GY\ Ybgk ØfX][_Y]hY b
BYW_UffUXk Y[	F UXk Y[	' ) \$`_a	7\Ufa UbhY GhÅXhYž: `i gg`U bXgW UZhYb
K]Yg`cW! F UXk Y[	F UXk Y[	' \$`_a	GhUXhnYbhf i a ž ?i fdZÀ`nYf @UbXgW UZh

9]bY`XYf`gW ÒbghYb`F ci hYb`ZØf`F UXZU\ fYfž`VYgcbXYfg`ZØf
: Ua `]`Ybž`]gh`XYf`]Xm`]gW`Y`K]Yg`cW!F UXk Y[``8]YgY`[Ya Øh]W\Y
GhfYW_Y`j cb`Yhk U`` \$`?)`ca YhYfb`ZØ\fh`Xi fW`X]Y`W Ufa UbhYb
C VYf!`i bX`i bhYfghUXhhY`]Y`j cb`K]Yg`cW`i bX`nY][h`X]Y`hmd]gW`Yb
A Yf_a U`Y`XYg`?i fdZÀ`nYf`<Ø[Y``UbXYg"`, VYf`X]Y`F ci hY`j YfhY`]hž
[]Vh`Yg`nU`\`fY]W`Y`F Ughd`ÀhnYž`Ub`XYbYb`a Ub`g]W`ghÅf`_Yb`i bX
X]Y`5i gg]W`h`[Yb]Y»Yb`_Ubb"

: Øf`5VYbhYi fYf`V]YhYh`XYf`<c\Yb`c\Yf`K UbXYfk Y[`Y]bY
Ubgdfi W`gj c``Y`<YfUi gZcfXYfi b[``8]Y`F ci hY`]gh`b]W`h`ZØf
gW`k UW`Y`BYfj Ybž`gcbXYfb`VY`c\bh`X]Y`K UbXYfYf`a `]h
i b[`Ui V`]W`Yb`5i gg]W`hYb`i bX`XYa` ; YZØ\`ž`k]f`_]W``]a` `9]b`_Ub[
a]h`XYf`B Uhi f`ni `gY]b``<]Yf`hf]Zh`a Ub`b]W`h`bi f`Ui Z
VYY]bXfi W`_YbXY`@UbXgW UZhYbž`gcbXYfb`Ui W`Ui Z`ZUgn]b]YfYbXY
H]YfUfhYbž`X]Y`Y]b`k]W`h][Yf`HY`]`XYf`F Y[]cb`g]bX"

8]Y`B Uhi fdUf_[YV]Yh`J cfXYfYf`C XYbk U`X`]gh`Y]b`k Y]hYfYf`Di b`_hž
XYb`a Ub`Ui Z`_Y]bYb`: U``j YfdUggYb`gc``hY``8]Y`nU`\`fY]W`Yb
K UbXYfk Y[Y`\]Yf`V]YhYb`Y]bY`[fc»Ufh][Y` ; Y`Y[Yb\Y]hž`X]Y`F Y[]cb
\Ui hbU`\ni`Yf`YVYb``NU`\`fY]W`Y`bUhØf`]W`Y`GY`Ybgk ØfX][_Y]hYbž
k]Y`X]Y` <c\Yb`c\Yf`GhY]bYž`a UW`Yb`X]YgYb`C fh`VYgcbXYfg
VYa Yf`_Ybgk Yfh``8]YgY`ZF]ghY`YbXYb`: Y`gZcfa Uh]cbYb`V]YhYb
b]W`h`bi f`Y]bY`UhYa VYfUi VYbXY`?i `]ggYž`gcbXYfb`g]bX`Ui W`Y]b
VY`]YVhYg`: chca ch]j "

8]Y`K UbXYf!`i bX`F UXk Y[Y`XYg`F`\\Y]b!BYW_Uf!`?fY]gYg`g]bX`b]W`h
bi f`Y]bY`[fc» Ufh][Y`A Ò[`]W`_Y]hž`X]Y`B Uhi f`ni `Yf`_i bXYb`/g]Y
ZòfXYfb`Ui W`Y]bYb`[Ygi bXYb`@YVYbggh]`i bX`V]YhYb`D`Uhn`Zòf`
_fYUh]j Y`Ci hXccf!5_h]j]h`hYb``C`V`a Ub`bi b`c`[[Ybž`k U`_Yb`cXYf`
Y]bZUW`bi f`Y]bYb`Yb`hgdUbb`hYb`GdUn]Yf[Ub[`a UW`Yb`a ÒW`hY`
XUg`5b[YVch]ghj]Y`Z`h]["

K Ybb`Xi`a Y`f`ØVYf`X]Y`K UbXYffci hYb`i bX`F UXk Y[Y`YfZU`fYb`
a ÒW`hYghž`_Ubbgh`Xi`X]Y`cZZ]n]Y``Y`K YVgY]hY`XYg`F`\\Y]b!BYW_Uf!
?fY]gYg`VYgi W`Yb``<]Yf`Z]bXYgh`Xi`? UfhYbž`XYhU]``]YfhY`
Fci hYbVYgW`fY]Vi b[Yb`i bX`k Y]hYfY`bØh`]W`Y`bZcfa Uh]cbYbž`i a
XY]bYb`5i ZYbh`U`h]b`X]YgYf`k i bXYfgW`ØbYb`FY[]cb`cdh]a U`ni
[YghU`hYb`"

? i `hi fY``Y`GW`ÀhnY.`A i gYYb`i bX`\\]ghcf]gW`Y`
Gh`ÀhhYb`

8Yf`F`\\Y]b!BYW_Uf!`?fY]g`]gh`b]W`h`bi f`Zòf`gY]bY`UhYa`VYfUi`VYbXYb`
@UbXgW`UZhYb`i bX`_i``]bUf]gW`Yb`; YbØggY`VY`_Ubbhž`gcbXYfb`Ui W`
Zòf`gY]bY`fY]W`\\U`h][Y`?i`hi f`i bX`; YgW`]W`hY``b`X]YgYf`FY[]cb`
Z]bXYh`a Ub`Y]bY`J]Y`nU`\\`j`cb`A i gYYb`i bX`\\]ghcf]gW`Yb`Gh`ÀhhYbž`
X]Y`X]Y`6Ygi W`Yf`]b`X]Y`J Yf[Ub[Yb`\\Y]h`YbhZò`fYb`i bX`
ZUgn]b]YfYbXY`9]bV`]W`_Y`]b`X]Y`c`_U`Y`?i`hi f`V]YhYb`"

9]b`\\Yfj`c`ffU[YbXYg`6Y]gd]Y``]gh`XUg`HYW`bc`gYi`a`A`Ubb`\\Y]a`ž`
XUg`U`g`Y]bYg`XYf`VYXYi`hYbXghYb`HYW`b]_a`i`gYYb`8Yi`hgW`U`bXg`
[]h`9g`V]YhYh]bhYfU`_h]j`Y`5i`gghY``i`b[Yb`ni`H`Y`a`Yb`k`]Y`
A`UgW`]bYbVUi`ž`J`Yf`_Y`f`i`bX`XYf`9bhk`]W`_i`b[]cb`HYW`bc`c`[]Yb`"
8]Y`\\]ghcf]gW`Y`:`UVf]_Ub`U[Y`i`bX`X]Y`nU`\\`fY]W`Yb`9I`dcbUHY`
a`UW`Yb`Y]bYb`6Ygi`W`ni`Y]bYa`gdUbbYbXYb`9f`YVb]g`Zòf`;`fc»`
i`bX`?`Y]b``6YgcbXYfg`VYa`Yf`_Ybgk`Yfh]g]bX`X]Y`fY[Y`a`À»][`
k`YW`gY`bXYb`GcbXYfUi`gghY``i`b[Ybž`X]Y`U`_hi`Y``Y`hYW`b]gW`Y`
9bhk`]W`_i`b[Yb`VY`Yi`W`hYb`"

9]bY`k`Y]hYfY`_i`hi`fY``Y`DYf`Y`]gh`XUg`?i`bghj`YfY]b`A`Ubb`\\Y]a`ž`
XUg`nY]h[YbØgg]gW`Y`?i`bgh`ZòfXYfh`i`bX`fY[Y`a`À»][`gdUbbYbXY`
5i`gghY``i`b[Yb`fY[]cbU`Yfž`bUh]cbU`Yf`i`bX`]bhYfbUh]cbU`Yf`?Øbgh`Yf`
df`AgYbh]Yfh``8]Y`F`Ai`a``]W`_Y]hYb`XYg`?i`bghj`YfY]bg`g]bX`Y]b`

k]W\h][Yf'HY]'XYf'_i 'hi fY''Yb '@UbXgW\UZh'i bX'V]YhYb'Y]b': cfi a
 ZØf'_fYUh]j Y'5i gY]bUbXYfgYhni b[Yb'i bX'8]g_i gg]cbYb"

⇒ 'GhUXha i gYi a '@ Xk][g\ UZYb '\]b[Y[Yb'_ØbbYb'6Ygi W\Yf
 a Y\f'ØVYf'X]Y'; YgW\]W\hY'XYf'GhUXh'YfZU\ fYb"J cb'XYf'; fØbXi b[
 V]g'ni f'9bhk]W'_i b['ni 'Y]bYf'VYXYi hYbXYb'ϕXi ghf]YghUXh'k]fX
 \]Yf'X]Y'_ca d'YhhY'7\ fcb]_YfnÅ\ 'h"8]Y'5i gghY''i b[Yb'i a ZUggYb
 Ui W\']bhYfYggUbhY'9]bV']W_Y']b'X]Y '@VYb'gk Y]gYb'XYf'A YbgW\Yb
]b'XYf'F Y[]cb'ØVYf'X]Y'ϕ\ f\i bXYfhY'\]bk Y[""

B UHØf']W\ 'XUfZ'Ui W\ 'X]Y'6i f[': fUb_YbghY]b'b]W\h'i bYfk Å\ bh
 V'Y]VYbž'X]Y'ØVYf'XYb'8ÅW\Yfb'j cb'8Ufa ghUXh'h\ fcbh"8]YgY
]a d'cgUbhY'a]hY'U'hYf']W\Y'6i f['V]YhYh'b]W\h'bi f'Y]bYb'\Yff']W\Yb
 5i gV']W_žgcbXYfb'Ui W\ 'Y]bY'ZUgn]b]YfYbXY'; YgW\]W\hY"G]Y'k i fXY
]a '%- "'ϕ\ f\i bXYfh'YfVUi h'i bX']gh'\Yi hY'U'g'8fY\c fh'ZØf
 nU\ 'fY]W\Y':]a Y'VY_Ubbh"6YgcbXYfg'Vf]gUbh'g]bX'X]Y
 ; fi gY[YgW\]W\hYbž'X]Y'g]W\ 'i a 'X]Y'6i f['fUb_Yb'i bX'g]Y'ni
 Y]bYa 'VY']YVhYb'N]Y''ZØf'Gdi _!Hci fYb'a UW\Yb"

8]Y'J]''U'GhfUgVci f[']'b'<Y]XY'VYf[']'gh'Y]b'k Y]hYfYg'6Y]gd]Y''ZØf
 XYb'F Y]W\h'i a 'Ub'\]ghcf]gW\Yb'GhÅhYb'ja 'F\Y]b!BYW_Uf!?'fY]g"
 8]YgYg'Y]bXfi W_gj c''Y'; YVÅi XY'Ui g'XYa '%- "'ϕ\ f\i bXYfh']gh
 b]W\h'bi f'Y]b'UfW\]hY_hcb]gW\Yg'<][\][\hžgcbXYfb'Ui W\ 'XYf'G]hn
 XYg'8Yi hgW\!: fUb nØg]gW\Yb'ϕbh]hi hgž'XUg'XYb'5i ghUi gW\
 nk]gW\Yb'VY]XYb '@ÅbXYfb'ZØfXYfh": Ø\fi b[Yb'Xi fW\ 'X]Y'J]''U
 [YVYb'9]bV']W_Y']b'X]Y'_i 'hi f\]ghcf]gW\Y'6YXYi hi b['XYf'GhUXh'i bX
 XYfYb'6Yn]Y\i b[Yb'ni ': fUb_fY]W\"

9]bY]bhYfYggUbhY'5i gk U\''Ub'A i gYYb'i bX'_i 'hi fY''Yb
 9]bf]W\h'i b[Yb'ja 'F\Y]b!BYW_Uf!?'fY]g'Àggh'g]W\ ']b'Y]bYf'HUVY''Y
 ni gUa a YbZUggYb.

HYW\bcgYi a A Ubb\Y]a	A Ubb\Y]a	HYW\b]_a i gYi a
?i bghj YfY]b A Ubb\Y]a	A Ubb\Y]a	?i bgha i gYi a
GhUXha i gYi a @ Xk][g\ UZYb	@ Xk][g\ UZYb	GhUXh[YgW\]W\h Y

6i f[: fUb_YbghY]b	8 Ufa ghUXh	<]ghc f]gWXY GhÅhhY
J]`U GhfUgVci f[	< Y]XY`VYf[	? i `hi f]bgh]hi h

8 Yf`< Y]XY`VYf[Yf`GWX`cgg`]gh`Y]b`k`Y]hYfYg`<][\`][`h`ZØf
; YgW]W]hg]bhYfYgg]YfhY`'9g`]gh`Y]bY`XYf`VY`UbbhYghYb`6i f[Yb
8 Yi hgW`UbXg`i`bX`n]Y`h`YXYg`Å\`f`A`]`]cbYb`j`cb`Hci f]ghYb`Ub`
6Ygi`W]Yb`G]Y`X]Y`VYY]bXfi`W`YbXYb` ; Ya`ÅW]Yf`i`bX`YfZU`fYb`G]Y
a`Y`f`ØVYf`X]Y`ZUgn]b]YfYbXY` ; YgW]W]hY`XYf`?i`fdZU`n`i`bX`]`fYf
F Yg]XYbnYb`"8 Ug`GWX`cgg`V]YhYh`b]W]h`bi`f`Å`]ghc f]gWXY`9l`dcbUHY`ž
gcbXYfb`Ui`W]`fY]nYbXY`J`YfUbghU`hi`b[`Yb`ž`k`]Y`X]Y`VYf`Ø`a`hYb
< Y]XY`VYf[Yf`GWX`cgg`ZYghgd]Y`Y`ž`X]Y`]a`Gca`a`Yf`ghUhh]bXYb`"

: Øf`X]Y`ž`X]Y`a`Y`f`ØVYf`X]Y`fY[]cbU`Y`?i`bgh`YfZU`fYb`a`ØW]hYb`ž`]gh
XUg`?i`fdZÅ`n]gWXY`A`i`gYi`a`]b`< Y]XY`VYf[`Y]b`A`i`gg`"9g
VY`YfVYf[h`VYXYi`hYbXY`GUa`a`i`b[`Yb`j`cb`XYf`5bh`_Y`V]g`ni`f
BYi`nY]hi`bX`nY][`h`K`Yf`_Y`VYf`Ø`a`hYf`?Øbgh`Yf`ž`X]Y`]b`XYf`F Y[]cb
[`Y`V`V`h`i`bX`[`Y`U`f`VY]hYh`Å`UVYb`"8]Y`J`YfV]bXi`b[`j`cb`?i`bgh`ž
; YgW]W]hY`i`bX`?i`hi`f`a`UW]h`X]YgYg`A`i`gYi`a`ni`Y]bYa`]`Ubn
VYgcbXYfYb`C`fh`ZØf`U`Y`?i`bgh`]YV`Å`UVYf`"

K`Yb`b`G]Y`g]W]`ZØf`c`_U`Y`HfUX]h]cbYb`i`bX`XUg`U`h`Å[]W]Y`@YVYb
Zf`Ø`YfYf`NY]hYb`]bhYfYgg]YfYb`ž`gc`h`Yb`G]Y`XUg`8 Yi`hgW]Y
5d`c`h`Å`Y`_Yb`!A`i`gYi`a`]b`< Y]XY`VYf[`VYgi`W]Yb`"8 Ug`A`i`gYi`a
[]Vh`9]b`V`]W`_Y`]b`X]Y`K`Y`h`XYf`D`Å`Ufa`Un]Y`j`ca`Å`]hY`U`hYf`V]g`ni`f
; Y[`Yb`k`Uf`h`i`bX`nY][`h`X]Y`9b`hk`]W`_i`b[`XYf`Å`YX]_Ua`Yb`hY`i`bX
XYfYb`Ni`VYfY]hi`b[]a`@Ui`ZY`XYf`Å\`f`Å`i`bXYfhY`"

Ni`gUa`a`Yb`ZUggYbX`Å`ggh`g]W]`gU[`Yb`ž`XUgg`XYf`F`Å`Y]b`!BYW`Uf`!`?`fY]g
a`]h`gY]bYb`nU`Å`fY]W]Yb`A`i`gY`Yb`i`bX`Å`]ghc f]gWXYb`GhÅhhYb`Y]b
k`U`Å`fYf`GW]Uhn`ZØf`?i`hi`f]bhYfYgg]YfhY`]gh`"9g`[]Vh`gc`j`]Y`ni
Yb`h`XYW`_Yb`ž`i`bX`Y`XY`9W`_Y`X]YgYf`F Y[]cb`Yfn`Å`Å`h`i`Å`fY`Y][`Yb`Y
; YgW]W]hY`"K`Yf`X]Y`?i`hi`f`XYf`F Y[]cb`Å`Ui`hb`U`Å`Yf`VYb`a`ØW]hY`ž
Å`Uh`Å`]Yf`X]Y` ; Y`Y[`Yb`Å`Y]h`X`Uni`"

J`YfUbghU`hi`b[`Yb`i`bX` :`YghY.`9]b`?`U`YbXYf
j`c`Yf`9f`YVb]ggY

8 Yf`F`Å`Y]b`!BYW`Uf`!`?`fY]g`]gh`b]W]h`bi`f`ZØf`gY]bY`U`b`XgW]UZh`]W]Y
GW]Øb`Å`Y]h`i`bX`_i`]bUf]gW]Yb` ; Yb`ØggY`VY`Ubb`h`ž`gcbXYfb`Ui`W]`ZØf
gY]bY`VYbX][`Y` :`Ygh`_i`hi`f`" ,`VYf`XUg`[`UbnY`Å\`f`j`YfhY]`h`Z]bXYb
nU`Å`fY]W]Y`J`YfUbghU`hi`b[`Yb`ghUhh`ž`X]Y`6Ygi`W]Yf`Ui`g`b`U`Å`i`bX`ZYfb
Ubn]Y`Å`Yb`"8]YgY` :`YghY`g]bX`b]W]h`bi`f`Y]bY`k`i`bXYfVUfY
; Y`Y[`Yb`Å`Y]h`ž`X]Y`c`_U`Yb`HfUX]h]cbYb`ni`Yf`VYb`ž`gcbXYfb`Ui`W]`ž

i a 'X]Y` \Yfn`]WXY ; UghZfYi bXgWUZh`XYf`FY []cb`ni` [Yb]Y»Yb"

9[U`ž`cV`G]Y`Ui Z`XYf`Gi WXY`bUW`hfUX]h]cbY`Yb`J`c`_gZYghYbž
`YV`UZhYb`GhUXhZYghYb`cXYf`_i`hi`fY`Yb`9j`Ybhg`g]bX`_`ja`F`Y]b!
BYW_Uf!`?`fY]g`[]Vh`Yg`Z0f`YXYb` ; YgW`a`UW`Yhk`Ug`Ni`XYb
<0`Ydi`b`_hYb`ja`_J`YfUbg`hU`hi`b`[g`_U`YbXYf`[Y`0fYb.

- <Y]a`UhhU`[Y`6`UXYb`!K`0fhhYa`VYf`[.`9]b`[fc»Yg` : Yghž
XUg`U`Y`nk`Y]`_`fY`]b`j`YfgW`]YXYbYb`Gh`XhYb`6`UXYb`!
K`0fhhYa`VYf`[g`ghUhhZ]bXYh`<`]YfVY]`ghY`Yb`fY`[]cb`U`Y`
HfUX]h]cbYbž?`i`bgh`UbXk`Yf`_i`bX`_i`_`]bUf]gWXY
GdYn]U`]h`hYb`ja`_A`]hhY`di`b`_h"
- 8`Ug`<`Y]XY`VYf`[Yf`GW`_c`ggZYgh`9]b`Y]bn][`Ufh][`Yg`
9j`Ybhž`XUg`]b`XYf`VY]bXfi`W`YbXYb`?`i`_`ggY`XYg`
<Y]XY`VYf`[Yf`GW`_c`ggYg`ghUhhZ]bXYh`i`bX`6`Ygi`WXYf`a`]h`
Y]bYa`_A`]i`Ui`g`A`i`g]_ž?`i`bghi`bX` ; Ughfcbca`]Y`
j`YfnUi`VYfh"
- K`Y]b`!`i`bX` ; Ya`0gYZYgh`]b`GW`k`Yhn]b`[Yb`_`_`XYg`_`f`
]a`_GYdhYa`VYf`j`Yfk`UbXY`h`g]W`GW`k`Yhn]b`[Yb`]b`Y]b`
GW`_UfUZZYb`UbXž`k`c`X]Y`VYghYb`K`Y]bY`XYf`FY`[]cb`i`bX`
Zf]gWXY`fY`[]cb`U`Y`DfcXi`_hY`ja`_A`]hhY`di`b`_h`ghY`Yb"
- 8`Yf`K`Y]`b`UW`hga`Uf`_h`]b`_A`Ub`b`Y]a`_9]bYf`XYf`
[f0»`hYb`i`bX`VY`_UbbhYghYb`K`Y]`b`UW`hga`_Af`_hY`]b`
8Yi`hgW`_UbXž`XYf`a`]h`ZYgh`]WXYf`6`Y`Yi`W`hi`b`[ž`
_UbX`[YZYfh][`hYb` ; YgW`Yb`_Yb`i`bX` ; `0`k`Y]b`_c`W`_h"
- F`Y]b`!BYW_Uf!`F`i`b`_9]bY`Gdcfhj`YfUbg`hU`hi`b`[ž`X]Y`@`Ai`ZYf`
U`Yf`5`hYfg`[fi`ddYb`ni`gUa`_a`YbVf]b`[h`<`]Yf`_0bbYb`G]Y`X]Y`
k`i`bXYfgW`0bY`_@`UbXgW`UZh`XYg`?`fY]gYg`[Yb]Y»Yb`i`bX`
[`Y]W`nY]h][`_U`_h]j`_gY]b"

9]b`k`Y]hYfYg`VYa`Yf`_Ybgk`YfhYg`9j`Ybh`]gh`XUg`6`Yf`[ghfU»`Y`
A`i`g]_ZYgh]j`U`ž`XUg`]b`j`YfgW`]YXYbYb`Gh`XhYb`XYf`6`Yf`[ghfU»`Y`
[YZY]Yfh`k`]fX`"9g`V]YhYhY]b`UVk`YW`g`i`b`[gfY]W`Yg`Dfc`[fUa`_a`_j`cb`
_`Ugg]gWXYf`A`i`g]_V]g`ni`_a`cXYfbYb`?`_Ab`[Yb`i`bX`n]Y`h`
A`i`g]_`]YV`UVYf`Ui`g`XYf`[Ub`nYb`FY`[]cb`Ub"

≠`XYf`Gca`_a`YfnY]h`c`W`Yb`Ui`W`X]Y`C`dYb`5]f`?`]bc`!5VYbXY`]b`
j`]Y`Yb`Gh`XhYb`XYg`F`Y]b`!BYW_Uf!`?`fY]gYg`W]bYUgh]gWXY`
<0`YbZ0[`Y`i`bhYf`XYa`_GhYfbYb`_ja`_a`Y`" <`]Yf`_0bbYb`
:]a`_`]YV`UVYf`_`fY`_@]YV`]b`[Y`]b`Y]bYf`YbhgdUbbhYb`5`ha`cgd`_AfY`
[Yb]Y»Ybž`c`Z`h`a`]h`Y]bYa`_ ; `Ug`K`Y]b`Ui`g`XYf`FY`[]cb"

8]Y`Gh`XhY`i`bX` ; Ya`Y]bXYb`ja`_F`Y]b`!BYW_Uf!`?`fY]g`g]bX`YVYbZU`g`
Z0f`_`]fY`GhUXhZYghY`VY`_Ubbhž`VY]`XYbYb`_c`_U`Y`?`0bghYfž`
<UbXk`Yf`_Yf`i`bX` ; Ughfcbca`Yb`_`]fY`DfcXi`_hY`j`cfghY`Yb`"8]YgY`
: YghY`g]bX`Y]bY`_Yfj`c`ffU`[YbXY`A`0`[`W`_Y]hž`X]Y`_c`_U`Y`?`i`hi`f`ni`

Yf`YVYb`i bX`X]Y`J YfVi bXYb\Y]h`XYf`6Øf[Yf`a]h`]\fYf`<Y]a Uhni
gdØfYb"

A cbUh	J YfUbgH`hi b[	C fh
ǂJbi Uf	BYi `U\fgYa dZUb[	A Ubb\Y]a
5df]`	: fØ\`]b[gYfk UW\Yb	<Y]XY`VYf[
ǂ`]	6UfcW_ZYgh GW\k Yhn]b[Yb	GW\k Yhn]b[Yb
Bcj Ya VYf	<Y]XY`VYf[Yf A ÆfW\YbH[U`Y	<Y]XY`VYf[
8YnYa VYf	K Y]\bUW\hga Uf_h	A Ubb\Y]a

8]Y`J]Y`ZU`h`Ub`J YfUbgH`hi b[Yb`]a `F`Y]b!BYW_Uf!`?fY]g`gd]Y[Y`h
b]W\h`bi f`X]Y`_i`hi fY`Y`J]Y`ZU`h`XYf`F`Y[]cb`k]XYfž`gcbXYfb`ghÆf_h
Ui W\`X]Y`; Ya`Y]bgW\UZh`i bX`ZØfXYfh`XYb`8]U`c[`nk]gW\Yb`XYb
A YbgW\Yb"J]Y`Y`X]YgYf`9j Ybhg`V]YhYb`ni XYa`Y]b`VfY]hYg
F`U`a`Ybdfc[fUa`a`a`]h`5_hj]h`h`Yb`ZØf`X]Y`[YgUa`hY`:`Ua`]]Yž`j`cb
?]bXYfUhfU_h]cbYb`V]g`]\b`ni`@j`Y!A`i`g]_`i`bX`_i`]\bUf]gW\Yb
; YbØggYb"

K Ybb`G]Y`X]Y`; Y`Y[Yb\Y]h`\UVYbž]a`F`Y]b!BYW_Uf!`?fY]g`ni`gY]bž
j`YfdUggYb`G]Y`b]W\h`X]Y`7`U`bW\ž`Y]bY`X]YgYf`VYgcbXYfYb
J YfUbgH`hi b[Yb`ni`VYgi`W\Yb"CV`]a`?fY]gY`j`cb`:`fYi`bXYb`cXYf
a`]h`XYf`:`Ua`]]Yž`X]Y`fY[]cbU`Yb`:`YghY`g]bX`Y]bY`ZUbHUGH]gW\Y
A`Ö`]\W\`_Y]hž`Y]bY`i`bj`Yf[Ygg`]W\Y`NY]h`ni`j`YfVf]b[Yb`i`bX`XUg
Y]bn][Ufh][Y`:`U]f`X]YgYf`VY`a`Yf`_Ybgk`YfhYb`F`Y[]cb`ni`Yf`YVYb"

6Ygi`W\Yb`G]Y`X]Y`cZZ]n]Y`Y`K`YVg]hY`XYg`F`Y]b!BYW_Uf!`?fY]gYg
ZØf`U`_hi`Y`Y`≠Zcfa`Uh]cbYb`ni`VY]`c`fghY`YbXYb`J YfUbgH`hi b[Yb
i`bX`:`YghYž`i`a`≠fYb`5i`ZYbh\U`h`cdh]a`U`ni`d`UbYb`i`bX`_Y]bY
<Ø\Ydi`b`_hY`ni`j`YfdUggYb`°

; Y\Y]a`h]ddg`ZØf`Y]bYb`i`bj`Yf[Ygg`]W\Yb
5i`ZYbh\U`h

8Yf`F`Y]b!BYW_Uf!`?fY]g]gh`Y]b`k`U`fYg`ǂ`k`Y`]a`<YfnYb
8Yi`hgW\`UbXg"5VgY]hg`XYf`Ui`g[YhfYhYbYb`DZUXY`[]Vh`Yg
nU`\fY]W\Y`; Y\Y]a`h]ddgž`X]Y`≠fYb`5i`ZYbh\U`h`i`bj`Yf[Ygg`]W\Y
a`UW\Yb`k`YfXYb"CV`[Y\Y]a`b]gj`c`Y`D`ÄhnYž`c`_U`Y
HfUX]h]cbgVYhf]YVY`cXYf`j`YfghYW`_hY`BUhi`fk`i`bXYf`:`\]Yf`g]bX
Y]b][Y`9a`dZY`\`i`b[Ybž`X]Y`G]Y`b]W\h`j`YfdUggYb`gc`hYb"

%`8]Y`k`Yb][Yf`VY`_Ubb`hYb`K`Y]b`c`fhY`Yf`YVYb

B]W\h`bi`f`<Y]XY`VYf[`]\Uh`K`Y]b`ni`V]YhYb`°9bhXYW`_Yb`G]Y`X]Y

W\ Ufa UbhYb`_`Y]bYb`K Y]bcfhY`XYg`F`Y]b!BYW_Uf!`fY]gYgž`k]Y`
J]Yfb`Y]a`cXYf`GW`f]Yg`Y]a`" <]Yf`_`ÖbbYb`G]Y`VY]
ZUa`]Y]Yb[YZ\fhYb`K]bnYfb`c`_`U`Y`K`Y]bY`dfcV]YfYb`i`bX`g]W`a`]h
fY[]cbU`Ya`K`]ggYb`j`Yfk`Ö`bYb`U`ggYb`"C`Zh`V]YhYb`X]Y`K`]bnYf
Ui`W` :` Ø`fi`b[Yb`Xi`fW`]\`fY`K`Y]b[ØhYf`Ubž`VY]`XYbYb`G]Y`U`Y`g
ØVYf`XYb`K`Y]bVUi`i`bX`X]Y`F`YVgc`fhYb`XYf`F`Y[]cb`YfZU`fYb`"

&" <]ghc`f]gW`Y`g` < Ub`X`k`Y`f`_`]b` < Y`X`X`Y`g`Y]a`

6Ygi`W`Yb`G]Y`X]Y` <]ghc`f]gW`Y`G`W`a`]Y`X`Y`]b` < Y`X`X`Y`g`Y]a` ž`k`c
hfUX]h]cbY`Y`Y`g` < Ub`X`k`Y`f`_`Y`V`Y`b`X][`]`Y`U`h`Y`b`k`]fX`" <]Yf`_`ÖbbYb`G]Y`
VY]`G`W`Ui`g`W`a`]Y`X`Y`b`ni`g`Y`Y`b`c`X`Y`f`gc[`U`f`g`Y`V`gh` < Ub`X`U`b`Y[`Y`b
i`b`X`Y]b`_`Y]bY`g`G`ci`j`Y`b]f`Ui`g`9]gY`b`g`W`a`]Y`X`Y`b`"8]Y`g`]gh`Y]b`Y
[`fc`»`U`fh][`Y`A`Ö[`]W`_`Y]hž`i`a`X]Y`?`i`h`i`f`i`b`X`H`f`U`X]h]cb`X`Y`g
< Ub`X`k`Y`f`_`g`]b`X]Y`g`Y`f`F`Y[]cb`U`i`h`b`U`ni`Y`f`Y`V`Y`b`"

'`" `B`U`hi`f`Y`f`Y`V`Y`b`]a`]S`N`Y`\`b`h`c`Z`S`V`Y]`G]b`g`Y]a`

9]b`k`Y]hY`fY`f` ;`Y`Y]a`h]dd`]gh`X`Y`f`N`Y`\`b`h`c`Z`]b`G]b`g`Y]a` ž`Y]b
_`Y]bY`g`DU`f`U`X]Y`g`Z`Ø`f`B`U`hi`f`Z`F`Y`i`b`X`Y`"8`Y`f`U`h`Y`6`Ui`Y`fb`c`Z`V]Y`h`Y`h
]b`h`Y`f`Y`gg]Y`f`h`Y`6`Y`gi`W`Y`f`U`b`ž`g]W`a`]h`X`Y`f`G`h`f`Y`i`c`V`ghk`]Y`g`Y`b`d`Z`Y[`Y`
j`Y`f`h`f`U`i`h`ni`a`U`W`Y`b`c`X`Y`f`V`Y]`X`Y`f`9`fb`h`Y`Z`f]g`W`Y`f`C`V`ghgc`fh`Y`b
a`]h`ni`Y`Z`Y`b`";`Y`b]Y`»`Y`b`G]Y`Y]b`Z`f]g`W`ni`V`Y`f`Y]h`Y`h`g`G`h`Ø`W`_`?`i`W`Y`b
Ui`g`Y][`Y`b`Y`a`C`V`gh`i`b`X`Y`f`b`Y`b`G]Y`a`Y`f`Ø`V`Y`f`b`U`W`\`U`h][`Y`
@`Ub`X`k`]f`hg`W`U`Z`h`"

(`" `5`V`g`Y]h`g`X`Y`f`H`ci`f`]gh`Y`b`d`Z`U`X`Y` .`8`Y`f`6`fi`W`g`U`k`Y[`

9]b`Y`f`X`Y`f`g`W`Ö`b`gh`Y`b`ž`U`V`Y`f`k`Y`b][`Y`f`V`Y`gi`W`h`Y`b`K`U`b`X`Y`f`k`Y[`Y`]gh
X`Y`f`6`fi`W`g`U`k`Y[`ž`X`Y`f`X`i`f`W`a`U`Y`f]g`W`Y`@`Ub`X`g`W`U`Z`h`Y`b`Z`Ø`f`h`
8]Y`g`Y`K`U`b`X`Y`f`i`b[`Z`Ø`f`h`G]Y`X`i`f`W`j`Y`f`h`Ä`i`a`h`Y`8`Ö`f`Z`Y`f`ž`j`c`f`V`Y]`U`b
: `Ø`gg`Y`b`i`b`X` < Ø[`Y`b`"DU`W`Y`b`G]Y`Y]b`D]W`_`b]W`_`Y]b`i`b`X`[`Y`b]Y`»`Y`b
G]Y`X]Y`5`i`gg]W`h`Ui`Z`X`U`g`F`Y]b`h`U`"X`Y`f`d`Y`f`Z`Y`_`h`Y`C`f`h`ni`a`
9`b`h`gd`U`b`b`Y`b`i`b`X`5`V`g`W`U`h`Y`b`"

)`" `?`i`b`gh`]a`]l`b`h`Y`f[`fi`b`X` .`l`b`h`Y`f]f`X]g`W`Y` ;`Ä`b[`Y`]b
G`W`k`Y`h`n]b[`Y`b`

≠`G`W`k`Y`h`n]b[`Y`b`_`ÖbbYb`G]Y`X`U`g` ;`Y`Y]a`b]g`X`Y`f`i`b`h`Y`f]f`X]g`W`Y`b
;`Ä`b[`Y`Y`b`h`X`Y`W`_`Y`b`"8]Y`g`Y` \]ghc`f]g`W`Y`b`H`i`b`b`Y`ž`X]Y`Y]b`gh`Z`Ø`f
a`]h`Ä`f]g`W`Y`N`k`Y`W`_`Y[`Y`V`U`i`h`k`i`f`X`Y`b`ž`g]b`X`Y]b`]b`h`Y`f`Y`gg`U`b`h`Y`g
,`V`Y`f`V`Y]V`g`Y`X`Y`f`J`Y`f[`U`b[`Y`b`Y]h`"9]b`Y`[`Y`Z`Ø`f`h`Y`H`ci`f`X`i`f`W`X]Y`g`Y
[`Y`Y]a`b]g]c`Y`b` ;`Ä`b[`Y`c`Z`Y`b`V`U`f`h` ;`Y`g`W`]W`h`Y`b`i`b`X`5`b`Y`_`X`ch`Y`b
Ø`V`Y`f`X]Y`G`h`U`X`h`i`b`X`]\`f`Y` ;`Y`g`W`]W`h`Y`"

*`" `?`i`]b`U`f]g`W`Y`9`b`h`X`Y`W`_`i`b[`g`f`Y]g`Y` .` <`c`Z`Ä`X`Y`b`i`b`X`A`Ä`f`_`h`Y`

DfcV]YfYb`G]Y`c_U`Y`8Y`[_UhYggYb`]b`XYb`nU`\fY]WXYb`<ÖZ`ÄXYb`ž
 X]Y`Zf]gWXY`fY[]cbU`Y`DfcXi`_hY`UbV]YhYb`"6Ygi`WXYb`G]Y`A`Äf`hY`]b
 GhÄXhYb`k`]Y`K`Y]b`Y]a`cXYf`D`Ub`_ghUXhž`i`a`_`UbX[`Ya`UWXhY
 fY[]cbU`Yb`?ÄgYž`6fch`i`bX`K`i`fgh`ni`j`Yf`_cghYb`"9]b][`Y`<ÖZ`ÄXYb
 V]YhYb`gc[`Uf`?`cW`_i`fgY`Ubž`]b`XYbYb`G]Y`YfbYb`ž`hfUX]h]cbY`Y`
 ;`Yf]WXY`hY`ni`ni`VYfY]hYb`"

5_hj]`]hÄhYb`	GhUbXcfhY`	6YgcbXYf\Y]hYb`
K`Y]bdfcVY`	J`]Yfb`Y]a`ž` GW`f]Yg`Y]a`	:`Ua`_]`Yb[`YZØ`fhY` K`]bnYfž` K`Y]bk`UbXYfi`b[`Yb`
<`UbXk`Yf`_`Yf`YVYb`	<`YXXYg`Y]a`	<`]ghcf]gWXY` GW`a`_]YXYž`Y][`YbY` Gci`j`Yb]fg[`YghU`hYb`
B`Uhi`fYf`_i`bXi`b[`	G]bg`Y]a`	:`f]gW[`YVUW`YbYf` C`Vgh`_i`WYbž`GhfYi`c` Vghk`]YgYbdZY[`Y`
K`UbXYfi`b[`	6fi`W`gU`k`Y[`	D`Ubc`fUa`UV`]W`_Ui`Z` X`Ug`F`Y]b`hU`
I`bhYf]fX]gWXY`; Äb[`Y` Yf`_i`bXYb`	GW`k`Yhn]b[`Yb`	;`YZØ`fhY`Hci`fYbž` \`]ghcf]gWXY` ;`YgW`]WXYb`
?`i`_]bUf]gWXY`A`Äf`hY`	K`Y]b`Y]a`ž` D`Ub`_ghUXh`	F`Y[]cbU`Y` GdYn]U`]hÄhYbž` ?`cW`_i`fgY`

A`]h`X]YgYb`;
 Y`Y]a`h]ddg`k`]fX`Äf`5i`ZYbh`U`h]a`F`Y]b!BYW`Uf!
 ?fY]g`b]W`h`bi`fi`bj`Yf[`Ygg`]W`ž`gcbXYfb`Ui`W`f]W`h][`
 UVk`YW`g`i`b[`gfY]W`"@UggYb`G]Y`X]Y`GY`Y`VUi`a`Y`bž`hUi`WXYb`G]Y`
 Y]b`]b`X]Y`c`_U`Y`?`i`hi`fi`bX`[`Yb]Y»Yb`G]Y`X]Y`Yfn`]WXY`
 ;`Ughž`fYi`bXgW`UZh`XYf`F`Y[]cb`"9g[]Vhij`]Y`ni`YbhXYW`Yb`°`

8YhU]`g`

6Ygi`WXYb`G]Y`i`bg`Ui`Z.`Y]bY!fY]gY`XY`