

A Ya a]b[Yb. '6Y`]YVhYf`F Y[]cbU`YI dfYgg
F 9' - * `g]W\ Yfh: U\ f[Ugh]bhYfYggY

Dc`h]_Yf'i bX`Dfc!6U\b!J YfhfYhYf`X]g_i h]YfYb`XUg
ni bY\ a YbXY: U\ f[UghUi Z_ca a Yb`ja `BU\!`i bX
: Yfbj Yf_Y\`f`]b`A Ya a]b[Yb"

8]Y`J Yf_Y\`fgj YfV]bXi b[Yb`nk]gW\Yb`A ØbW\Yb`i bX`NØf]W\
[Yk]bbYb`ni bY\ a YbX`Ub`6YXYi hi b["8]Yg`nY][h`g]W\ `b]W\ h
ni `Ymh`Ub`XYf`ghY][YbXYb`NU\`j cb: U\ f[ÅghYb`Ui ZX]YgYf
VY`]YVhYb`F ci hY"J YfhfYhYf`Ui g`XYf`Dc`h]_`gck]Y`XYf
: U\ f[Ughj YfVUbX`Dfc`6U\b`UVYb`g]W\`_Øfn`]W\`]b`A Ya a]b[Yb
[YhfcZYbž`i a `ØVYf`X]Y`9btk]W`i b[`ja `BU\!`i bX: Yfbj Yf_Y\`f`ni
X]g_i h]YfYb"

8]Y`?fYi ni b[`j cb`FY[]cbU`!`i bX: Yfbj Yf_Y\`f`k]fX`Ui W\`]b
Ni _i bZh`k]W\h][`V`Y]VYb"8]YgY`6]!A cXU`]hÅh`Yfa Ò[`]W\hYg
DYbX`Yfb`i bX`FY]gYbXYbž`ZYI]VY`ni `V`Y]VYb"8Uni` [Y\`Øfh`Ui W\
XYf`FY[]cbU`YI dfYgg`F 9' - * žXYf`hÅ[`]W\`i a `; `l`f`]b`A Ya a]b[Yb
UVZ\`fh`i bX`i a `-.\$(`l`f`Ua `A ØbW\`bYf`<Ui dhVU\b`cZ`Ub_ca a h"
?`Ui g`<c`YhgW\Y`ž`XYf`@UbXhU[gUV[YcfXbYhY`i bX`7GI !
: fU_h]cbgj cfg]hnYbXYž`\YVh`Yfj cfž`XUgg`X]YgYf`F 9' - * `VYgcbXYfg
ZØf`j]Y`Y`9]bdYbX`Yf`Y]bY`UhhfU_h]]Y`J YfV]bXi b[`XUfghY`h" A]h`XYf
9]bZØ\`fi b[`XYg`8Yi hgW\`UbXh]W_Yhg`\Uh`g]W\`X]Y`Bi hni b[`X]YgYg
Ni [Yg`gc[Uf`bcW\`Yf\`Ò`h"

9fk Y]hYfi b[`XYg`5b[YVc hg

I a `XYf`ghY][YbXYb`BUW`ZFU[Y` [YfYW\h`ni `k YfXYbž`\Uh`X]Y
8Yi hgW\Y`6U\b`ni gUa a Yb`a]h`XYb`6U\bYb`Ui g`² ghYffY]W\`fP 66Ł
i bX`XYf`GW`k Y]n`fG66Ł`XUg`5b[YVch`Ui ZX]YgYf`VY`]YVhYb`GhfYW_Y
XfUa Uh]gW\`Yfk Y]hYfh"GY]h`XYa `: U\ fd`Ub`k YW\`gY``&\$&(`[]Vh`Yg

bi b`Y]b`g]YVhYg`hÅ[`]WYg`Ni [dUUF`nk]gWYb`A ØbWYb`i bX
NØf]W`"8]Yg`]gh`Yfgh`XYf`5bZUb[.`5V`XYa` : U\fd`Ub`&\$&) `]gh`gc[Uf
Y]b`j c`ghÅbX][Yf`Nk Y]ghi bXYbhu`_h`a`]h`Y]bYa` `UW`hYb`Ni [dUUF
[Yd`Ubh"

6YcVUW`hi b[Yb`nY][Ybž`XUgg`X]Y`DUggU[]YfnU\`Yb`Ua
A Ya`a`]b[Yf`6U\`b\`cZ`b]W`h`bi`f`]a` : Yfbj Yf`_Y\`fž`gcbXYfb`Ui W`
VY]a` `B U\`j Yf`_Y\`f`UbghY][Yb`"8]Yg`n]Y\`hi`bk`Y][Yf`]W`X`Y
5i Za` Yf`_gUa` _Y]h`XYf`F`Y []cbU`dc`h]_`Ui`Z`g]W`ž`i`bX`X]Y` ; Ygd`f`Å`W`Y`ž
X]Y`_Øfn`]W`]b`A`Ya`a`]b[Yb`ghUhhZUbXYbž`g]bX`Y]b`X]fY`_hYg
9f[YVb]g`X]YgYg`K`UW`ghi`a`g"

7\`f]ghcd`\`6ØW`Y`Y`ž`6YUi`ZhfU[hYf`XYg` : U\`f[Ughj`YfVUbXg`Dfc`6U\`b
ZØf`A`Ya`a`]b[Yb`i`bX`XUg`i`bhYfU``[Åi`ž`\Uh`VYhcbhž`XUgg`X]Y
6Ya`Ø\`i`b[Yb`j`cb`<c`YhgW`Y`_i`bX`XYa` `J`Yf`_Y\`fga`]b]ghYf
7\`f]gh]Ub`6YfbfY]hYf`Yb`hgW`Y]XYbX`k`UfYbž`i`a` `XYb`F`9`-`*`ni
g]W`Yfb`"8]Y`dUggYbXY`?ca`V]Ui`g`B`U\`!`i`bX` : Yfbj Yf`_Y\`f`]gh
Yb`hgW`Y]XYbX`ž`gc`6ØW`Y`Y"

J`YfVYggYfi`b[Yb`]b`XYf`=bZfUghfi`_hi`f`

9]b`nYbhfU`Yg`H\`Ya`U`XYf`8]g`_i`gg]cb`k`Uf`X]Y`B`chk`YbX][`_Y]hž`X]Y
=bZfUghfi`_hi`f`b]W`h`bi`f`ni`Yf`U`h`Ybž`gcbXYfb`g]Y`Ui`W`
Ui`gni`V`Ui`Yb`"6ØW`Y`Y`ZcfXYfh`XYi`h]W`. `9g`]ghi`bYf`Ågg`]W`ž`XUgg
gck`c`\`XYf` : Yfb!`U`g`Ui`W`X`Yf`F`Y []cbU`j`Yf`_Y\`f`Ui`Z`XYf`GhfYW`_Y
a`]h`Y]bUbXYf`\`Ufa`cb]YfYbž`c`bY`XUgg`J`YfV]bXi`b[Yb`[`Yghf]W`Yb
k`YfXYb`a`ØggYb`"8]Y` : U\`f[`ÅghY`Y]XYb`c`Zi`i`bhYf`ØVYfZØ`hYb`i`bX
j`Yfgd`Å`h`Y`b`NØ[Ybž`k`Ug`X]Y`8`f]b[`]W`_Y]h`X]YgYf` : cfXYfi`b[
j`YfXYi`h]W`h"

9VYbZU``g`dcg]h]j`Yfk`Å\`bh`k`i`fXYb`U`_hi`Y`Y`=b]h]Uh]j`Yb`k`]Y`X]Y
8i`fW`gU[Yb`]b`XYb`NØ[Yb`j`cb`5F`J`9F`€`ž`X]Y`VYfY]hg`Ui`Z`X]Y
\`U`V`ghØ`b`X`]W`Yb`6i`gj`YfV]bXi`b[Yb`ni`a` : `i [\`UZ`Yb`A`Ya`a`]b[Yb
\`]bk`Y]gYb`"5i`W`X]Y`8Yi`hgW`Y`6U\`b`k`]fX`UV`8YnYa`VYf`&\$&(` `]fY
NØ[Y`i`a` `5bgW`i`gg\]bk`Y]gY`ni`a` : `i [\`UZ`Yb`Yfk`Y]hYfb`"8]Yg`k`]fX
XYb`F`Y]gYbXYb`\`Y`ZYbž`\`fY`C`dh]cbYb`VYggYf`ni`d`UbYb`i`bX`[]Vh
5bfY]nYž`X]Y`6U\`b`ni`bi`hnYb"

ægYZA]`Yfž`Y\Ya U`][Yf`GhUUhga]b]ghYf`i bX`Yb[U[]YfhYf
J YfZYW hYf`XYf`9`Y_hf]Zn]Yfi b[`nU\`fY]W Yf`6U\ bghfYW_Ybž`ghY`hY
ZYgh` 8i fW`X]Y`9`Y_hf]Zn]Yfi b[`XYf`6U\ bghfYW_Y`NØf]W!
A ØbW`Yb`k YfXYb`j]Y`Y`DUggU[]YfY`j cb`GhfU»Y`i bX`:`i [nYi [`ni f
6U\`b`i a ghY][Yb" `8]Yg`nY][hž`XUgg`X]YgY`6Ya Ø\i b[Yb`VYfY]hg
YfghY`9fZc`[Y`nY][Yb.`8]Y`F Y]gYbXYb`Yb`hgW`Y]XYb`g]W
ni bY\`a YbX`ZØf`XYb`Ni ["

8]Y`6YXYi hi b[`X]YgYf`9b`hk]W_`i b[Yb`_Ubb`U`gc`b]W`h`c`W`[Ybi [Y]b[YgW`Å`h`k`YfXYb" `9g`k`YfXYb`K`Y[Y[YVbYhž`i a `DYbX`Yfb
i bX`F`Y]gYbXYb`Y]b`i a ZUggYbXYfYg`i bX`VYggYfYg`5b[YVch`ni
i bhYfVfY]hYb" `8]Y`8]g_`i gg]cb`]b`A`Ya`a`]b[Yb`]gh`5i`gXfi`W`_Y]bYg
g]W`_`Ub[gUa``k`UbXY`bXYb`A`cV`]h`Å`hg`_`cb`nYd`hgž`XUg`XYb
6YXØfZb]ggYb`XYf`A`YbgW`Yb`]a` `ž\`f`&`\$`&(`F`Y`W`bi b[`hf`Å[h"

Dcg]h]j Y`9b`hk]W_`i b[Yb`]a` `J`Yf`_Y`f`g`Ub[YVch

æg[YgUa`h`k`]fX`Yf`_YbbVUfž`XUgg`gck`c`_`c`_U`Y`Dc`]h]_Yf`U`g`Ui`W`
J`YfV`Ub`X`gj`Yf`h`Y`h`Y`f`g]W`_`[`Ya`Y]bgUa` `ZØf`Y]bY`J`YfV`Y`gg`Yfi b[`XYf`
6U\`bj`YfV]bXi b[Yb`ghUf`_a`UW`Yb" `9g`]gh`Y]b`[i`hYg`N`Y]W`Ybž`XUgg
U`_Y`6Y`h`Y]][hYb`X]Y`6YXYi hi b[`XYf`J`Yf`_Y`f`g]bZfUghfi`_hi`f`ZØf`X]Y
F`Y[]cb`Yf`_YbbYb`i bX`Yb`hgd`f`Y`W`YbXY`A`U»bU\`a`Yb`Yf[fY]ZYb
k`c`_`Yb" `8]Y`:`c`fhgYhni b[`XYf`5`_h]j`]h`Å`hYb`]b`F`]W`hi b[`6U\`b`!`i`bX
:`Yfbj`Yf`_Y`f`nY][h`XUg`9b[U[Ya`Yb`h`ZØf`Y]bY`b`UW`_`U`h][Y`i`bX
_`]a`UgW`cbYbXY`A`cV`]h`Å`h"

8]Y`K`]W`h][_Y]h`Y]bYg`[i`h`Ui`g[YVUi`hYb`J`Yf`_Y`f`gbYhnYg`ZØf`X]Y
k`]fhgW`UZh]W`Y`9b`hk]W_`i b[`Y]bYf`F`Y[]cb`]gh`i`bVYghf]hYb" `9]b
j`Yf`Å`gg]W`Yf`B`U\`!`i`bX`:`Yfbj`Yf`_Y`f`hf`Å[h`b]W`h`bi`f`ni`f`A`cV`]h`Å`h
XYf`6Yj`Ø`_Yfi b[`VY]ž`gcbXYfb`i`bhYfghØ`h`h`Ui`W`X]Y`_`c`_U`Y
K`]fhgW`UZh" `8]Y`5bV]bXi b[`Ub`[fc»Y`k`]fhgW`UZh]W`Y`N`Y`b`hf`Yb`k`]Y
A`ØbW`Yb`]gh`ZØf`i`bhYfbY\`a`Yb`]a` `5`_`[Åi`i`bX`i`bhYfU`_`[Åi
Yb`hgW`Y]XYbX" `9]b`k`UW`gYbXYg`J`Yf`_Y`f`gbYhn`ZØf`XYfh`b]W`h`bi`f`
X]Y`DYbX`Yfj`YfV]bXi b[Ybž`gcbXYfb`Ui`W`X`Yb`Hci`f]ga`i`gž`]bXYa
Yg`6Ygi`W`Yfb`Yf`Y]W`hYfhž`X]Y`F`Y[]cb`ni`_YffY]W`Yb"

GhUh]gh]_Yb`nY][Ybž`XUgg`XYf`GW`]YbYbj`Yf`_Y`f`]a` `K`Y`h`h`V`Y`k`Y`f`V`a`]h
UbXYfYb`J`Yf`_Y`f`ghf`Å[Yfbž`k`]Y`XYa` `5i`hc`c`XYf`:`i [nYi [ž

ni bY\ a YbX`Ub`6YXYi hi b[` [Yk]bbh" @Ui h`XYa
6i bXYga]b]ghYf]i a `Z0f`8][]hU`Yg`i bX`J`Yf`_`Y`f`f`b`A`8`J`k`gh]Y[`X]Y
5bnU\`XYf`:`U\`f[`ÀghY`]a `G\W]YbYbj Yf`_`Y`f`&`\$`&` `i a `Yhk U`) `i `]a
J`Yf[`Y]W\`ni a `J`c`f`U`f`" `8]Yg`]gh`Y]b`NY]W\Yb`X`U`Z0f`ž`X`U`gg`F`Y]g`Y`b`X`Y
g]W\`j`Y`fa`Y`\`fh`Z0f`X]Y`6`U`b`Y`b`hg`W\`Y]X`Y`b`ž`k`U`g`U`i`W\`X`i`f`W\`X`Y
9]b`Z0\`fi`b[`X`Y`g`8`Y`i`hg`W\`U`b`X`h]W`_`Y`hg`[`Y`Z0`f`X`Y`fh`k`]f`X"

⇒b ZfUghfi _hi f`i bX`< YfUi gZcfXYfi b[Yb

Hfchn`XYf`dcg]h]j Yb`9bhk]W`_`i b[Yb`]a `B`U`j`Yf`_`Y`f`ž`[]Vh`Y`g
Yf\`Y`V`]W\`Y`<`Y`f`U`i`g`Z`c`f`X`Y`f`i`b[`Y`b`]a `<]b`V`]W`_`U`i`Z`X]Y`⇒`Z`f`U`g`h`f`i`_`h`i`f`"
8]Y`V`Y`gh`Y`\`Y`b`X`Y`b`]; `Y]g`Y`i`b`X`6`U`b`b`Ò`Z`Y`g]b`X`c`Z`h`Ø`V`Y`f`U`gh`Y`h`ž`k`U`g
ni`J`Y`f`gd`À`h`i`b[`Y`b`]i`b`X`Ø`V`Y`f`Z0`h`Y`b`N`Ø[`Y`b`Z0`\`fh`" `8`Y`f`
:`U\`f[`U`gh`j`Y`f`V`U`b`X`D`f`c`6`U`b`Z`c`f`X`Y`f`h`X`U`\`Y`f`Y]b`Y`b`_`c`b`g`Y`e`i`Y`b`h`Y`b
5i`g`V`U`i`X`Y`f`G\`W]Y`b`Y`b]b`Z`f`U`g`h`f`i`_`h`i`f`i`b`X`X`Y`f`<`U`h`Y`d`i`b`_`h`Y`ž`i`a`X`Y`b
gh`Y][`Y`b`X`Y`b`5`b`Z`c`f`X`Y`f`i`b[`Y`b`[`Y`f`Y`W\`h`ni`k`Y`f`X`Y`b`" `9]b
ni`_`i`b`Z`hg`Z`À`\][`Y`g`G\`W]Y`b`Y`b`b`Y`h`V`Y`b`Ø`h][`h`b]W\`h`i`b`i`f`a`Y`\`f`N`Ø[`Y`ž
g`c`b`X`Y`f`b`U`i`W\`a`c`X`Y`f`b]g]Y`f`h`Y`6`U`b`b`Ò`Z`Y`i`b`X`Y]b`Y`j`Y`f`V`Y`gg`Y`f`h`Y
Ni`[`À`b[`]W\`_`Y]h"

8]Y`9`Y`_`hf]Z]n]Yfi b[`j`c`b`6`U`b`g`h`f`Y`W`_`Y`b`ž`k`]Y`X`Y`a`5`V`g`W\`b]h`h`N`Ø`f]W\`!
A`Ø`b`W\`Y`b`ž`]gh`Y]b`k`]W\`h][`Y`f`G\`W`f]h`i]b`F`]W\`h`i`b[`Y]b`Y`f`
i`a`k`Y`h`Z`f`Y`i`b`X`]W\`Y`f`Y`b`A`c`V]j]h`À`h`" `8]Y`g`Y`A`U`»`b`U`a`Y`b`g]b`X`HY`]X`Y`f`
N]Y`Y`X`Y`f`6`i`b`X`Y`g`f`Y[]Yfi b[`ž`X`Y`b`5`b`h`Y`]X`Y`g`G\`W]Y`b`Y`b`j`Y`f`_`Y`f`g`ni
Y`f`\`Ø`Y`b`i`b`X`X]Y`f`Y]b`a`c`h`c`f]g]Y`f`h`Y`b`J`Y`f`_`Y`f`g`h`f`À[`Y`f`ni`Y`b`h`U`gh`Y`b`"
@Ui`h`Y]b`Y`f`G`h`i`X]Y`X`Y`g`i`a`k`Y`h`V`i`b`X`Y`g`U`a`h`Y`g`_`U`b`b`X`Y`f`6`Y`h`f]Y`V`j`c`b
Y`Y`_`hf]g`W\`Y`b`N`Ø[`Y`b`]a `J`Y`f[`Y]W\`ni`8]Y`g`Y`n`Ø[`Y`b`g][`b]Z`_`U`b`h`ni`f`
F`Y`X`i`_`h]c`b`j`c`b`7`C`&!`9`a`]gg]c`b`Y`b`V`Y]h`f`U[`Y`b`"

Ni _i bZhgdYfgdY_h]j Yb

8]Y`U`b`\`U`h`Y`b`X`\`c`\`Y`B`U`W\`Z`f`U[`Y`b`U`W\`X`Y`b
F`Y[]c`b`U`Y`i`d`f`Y`gg`j`Y`f`V]b`X`i`b[`Y`b`k`]Y`X`Y`a`F`9`-`*`n`Y][`h`ž`X`U`gg
⇒`j`Y`gh]h]c`b`Y`b`]b`X`Y`b`G\`W]Y`b`Y`b`j`Y`f`_`Y`f`X`f]b[`Y`b`X`b`c`h`k`Y`b`X][`g]b`X`"
8]Y`V`Y`j`c`f`gh`Y`\`Y`b`X`Y`b`9`f`k`Y]h`Y`f`i`b[`Y`b`X`Y`f`:`U`\`d`À`b`Y`V]g`&`\$`&`)`g]b`X
Y]b`G\`W`f]h`i]b`X]Y`f]W\`h][`Y`F`]W\`h`i`b[`ž`U`V`Y`f`Y`g`V`Y`X`U`f`Z`U`b`\`U`h`Y`b`X`Y`f`
5`b`g`h`f`Y`b[`i`b[`Y`b`ž`i`a`X]Y`E`i`U]h`À`h`i`b`X`J`Y`f`Z0[`V`U`f`_`Y]h`X`Y`g`5`b[`Y`V`c`h`g
b`U`W\`\`U`h][`ni`j`Y`f`V`Y`gg`Y`f`b`" ⇒`a`?`c`b`h`Y`i`h`X`Y`f`⇒`Z`f`U`g`h`f`i`_`h`i`f`Z`f`U[`Y`b`

gd]Y`Yb`Ui W`Z]bUbn]Y`Y`A]hY`Y]bY`YbhgWXY]XYbXY`F c`Y" `8Yf
U_hi Y`Y`6i bXYgj Yf_Y\fgk Y[Yd`Ub`g]Y\hj cfz`XUgg`V]g`&\$' \$
A]`]UfXYbVYhfA[Y`]b`X]Y`GWX]YbYbj Yf_Y\fg]bZfUghfi _hi f`]bj Ygh]Yfh
k YfXYb`gc`Yb"

Ni gÀh`]W`ni f`J YfVYggYfi b[`XYf`GWX]YbYb]bZfUghfi _hi f`]bX
]bbcj Uh]j Y`5bgÀhY`i bX`HYW`bc`c[]Yb`k]Y`X][]hU`Y
: U\ f[Ugh]bZcfa Uh]cb`i bX`a cXYfbY`H]W_Yh]b[!GmghYa Y`bchk YbX][ž
i a `XYb`?ca Zcfhi bX`X]Y`6Ybi hYfZfYi bX`]W`_Y]h`ni `Yf\Ò\Yb" `8]Y
≠hY[fUh]cb`j cb`a i `h]a cXU`Yb`J Yf_Y\fg`Ògi b[Ybž`VY]`XYbYb
6i ggYž`6U\`bYb`i bX`U`hYfbUh]j Y`J Yf_Y\fga]hY`bU`h`cg
a]hY]bUbXYf`j YfVi bXYb`g]bXž`k]fX`ni bY\`a YbX`Ub`6YXYi hi b[
[Yk]bbYb" `8UXi fW`_ÒbbYb`FY]gYbXY`j YfgW`]YXYbY
J Yf_Y\fghfA[Yf`YZZ]n]Ybh`_ca V]b]YfYb`i bX`X]Y`6Uff]YfYb`nk]gW`Yb
XYb`i bhYfgW`]YX`]W`Yb`GmghYa Yb`UVVUi Yb"

8YhU]`g

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