

HfUi bghY]b. '5i hcZU\ fYf' b UWX '5b [f]ZZ
j Yf`Yhnh' `Dc`nY]`gi WX h'NYi [Yb`°

⊕`HfUi bghY]b`k i fXY`Y]b`&\$!`Ä\ f][Yf`5i hcZU\ fYf`j`cb`Y]bYa
l bVY_UbbhYb`Ub[Y[f]ZZb`"8]Y`Dc`nY]`gi WX h'bUWX`NYi [Yb`"

⊕`XYf`GhUXh`HfUi bghY]b`k i fXY`Y]b`&\$!`Ä\ f][Yf`5i hcZU\ fYf`Ua
5VYbX`XYg`&("5i [i gh'&\$&(`C dZYf`Y]bYg` , VYf[f]ZZg`"8]YgYg
i bYfk UfhYhY`9fY][b]g`YfY][bYhY`g]WX` [Y[Yb`&%.) \$`l` \f`a` `6YfY]WX
XYf`F Y]ZYbghi`Y`ghfU»Yž`k`c`XYf`↑`b[Y`A`Ubb`]b`gY]bYa` `gWX`k`UfnYb
GYUh`7i`dfU`j`cb`Y]bYa` `l`bVY_UbbhYb`Ub[Y\U`hYb`k`i`fXY`"

@Ui`h`6Yf]WX`hYb`XYf`Dc`nY]`F`cgYb`Y]a` `b`Ä\`YfhY`g]WX`XYf
i`bVY_UbbhY`HÄ`hYf`XYa` `5i`hc`XYg`HfUi`bghY]bYfg`i`bX`VY[`Ubb
gc`Zc`fhž`]\`b`j`YfVU`ni` `VY`Y]X][`Yb`"8]Y`G]hi`Uh]cb`Yg_U`YfhY`gWX`bY`ž
U`g`XYf`5b[`fY]ZYf`VY[`Ubb`ž`Ui`Z`XUg` :`U\`fnYi` [`Y]bni`gWX`U[`Yb`"8Yf
5i`hcZU\`fYf`j`Yfgi`WX`hY`XUfUi`Z`]\`b`ž`Ui`g`XYa` `5i`hc`Ui`gni`ghY][`Yb`ž
k`Ug`ni`Y]bYf`\`UbX[`fY]Z]WX`Yb`5i`gY]bUbXYfgYhni`b[`ZØ\`fhY`"⊕
X]YgYa` ;`YfUb[`Y`nc[`Yf`g]WX`Y]bY`GWX`i`hYfj`Yf`Yhni`b[`ni`ž
k`Ygk`Y[`Yb`Yf`Äfnh]WX`VY\`UbXY`h`k`YfXYb`a`i`gghY`"

8YhU]`g`ni`a` `J`c`f`ZU` ``i`bX`HÄ`hYf`VY`gWX`fY]Vi`b[

B`UWX`XYa` ` _ÖfdYf`]WX`Yb`5b[`f]ZZ`Zc`\`XYf`i`bVY_UbbhY`HÄ`hYf`j`ca
HUhc`fh`<`]bk`Y]gY`ni`f`DYfgcb`XYg`5b[`fY]ZYfg`[`]Vh`Yg`U`YfX]b[`g.`9f
k`]fX`]a` `5`hYf`j`cb`Yhk`U`)`\$`V]g`)`)` :Ä\`fYb`VYgWX`f]YVYb`ž`\`Uh`Y]bYb
8fY]hU[`YVUfh`i`bX`_i`fnY`<`UUfY`"Ni`XYa` `hfi` [`Yf`Y]b`VfUi`b!`[`fUi`Yg
H!G\]fhž`Y]bY`_i`fnY`<`cgY`i`bX`6UXYgWX`UddYb`"7\`UfU`_hYf]gh]gWX`ZØf
]\`b`k`Uf`Ui`WX`XYf`VUmYf]gWX`Y`8]U`Y`_hž`k`Ug`Ui`Z`c`_U`Y`<`Yf`_i`b`Zh
\`bXYi`hYh`"

8]Y`Dc`nY]`HfUi`bghY]b`\`Uh`Y]bY` :`U\`bXi`b[`bUWX`XYa` :`ØWX`h][`Yb`

Y]b[Y`Y]hYhi bX`]gh`Ui Z`XYf`Gi W`X`b`UW`NYi [Ybž`X]Y
a Ò[`]W`Yfk`Y]gY`k`Y]hYfY`ϕZcfa`Uh]cbYb`ni`XYa`J`cfZU``cXYf`XYa
HÀhYf`\UVYb"8]Y`Dc`nY]`V]hhYhž`U`Y`<]bk`Y]gY`i`bhYf`XYf
HY`Y`Zcbbi`a`a`Yf`\$,`*`%`#`,`+`,`!`\$`ni`a`Y`XYb"

8Yf`J`cfZU``\`Uh]b`XYf`FY[]cb`6Ygcf[b]g`Ui`g[Y`Ògh"?"`ÒfdYf`]W`Y
`VYf[f]ZY`X]YgYf`5fh`g]bX`]b`HfUi`bghY]b`i`b[Yk`Ò\b`]W`ž`k`Yg`U`V
Ui`W`X]Y`Òfh`]W`Y`Dc`nY]`]\fYb`GhY``i`b[bU`a`Yb`VYgcbXYfY
5i`Za`Yf`_gUa`_Y]h`k`]Xa`Yh`9]bY`h]YZYfY`5bU`mgY`XYf`<]bhYf[fØbXY
XYg`5b[f]Zg`ghY`h`bcW`Ui`gž`XU`V]g`Yf`_Y]b`c`ZYbg]W`h`]W`Yg`A`ch]j
ZØf`XUg`U[[fYgg]j`Y`J`Yf`U`hYb`XYg`HÀhYfg`VY`_Ubbh`]gh"

8]YgYg`9fY][b]g`k`]fZi: fU[Yb`Ui`Zž`k`]Y`Yg`ni`XYfUfhid`Òhm`]W`Yb
;`Yk`U`hUb`k`YbXi`b[Yb`]a`ÒZYbh`]W`Yb`F`Ui`a`_ca`a`Yb`_Ubb"8Yf
J`cfZU``_ÒbbhY`a`Ò[`]W`Yfk`Y]gY`Ui`W`Y]b`<]bk`Y]g`Ui`Z`ghY][YbXY
GdUbbi`b[Yb`c`XYf`i`bj`cf`YfgY`V`UfY`5[[fYgg]j`]hÀh`]a`5``hU[`gY]b"
ϕ`GhÀXhYbž`k`c`a`Ub`c`Zi`Ub`Y]b[Yk`]ggYg`A`U»`Ub`G]W`Yf`Y]h
[Yk`Ò\bh`]ghž`_ÒbbYb`gc`W`Y: À`Y`ni`Y]bYa`h]YZYb`9]bgW`b]h`]b
XUg`@YVYbg[YZØ`\`XYf`6Yk`c`bYf`ZØ`fYb"

Ni`gÀh`]W`VYi`bfi` \][YbX`]gh`\]Yf`X]Y`i`bVY`_Ubbh`Y]h`XYg`HÀhYfgž
k`Ug`X]Y`Gi`W`Y`bcW`g`W`k`]Yf][Yf`a`UW`h`8]Y`HUhgUW`Yž`XUgg`XYf
5b[fY]ZYf`a`]hY]bYa`Y`Yf`i`bgdYn]Z]gW`Yb`Ÿi`»`YfYb`i`bX`c`_U`Ya
8]U`Y`_h`VYgW`f]YVYb`k`]fXž`Àggh`XUfUi`Z`gW`Y]Y»`Ybž`XUgg`Yg`g]W`i`a
Y`a`UbXYb`\UbXYb`_ÒbbhYž`XYf`ni`a`i`a`ZY`X`XYf`GhUXh[Y`Òfh"
8]Yg`j`YfghÀf`_h`XUg;`YZØ`\`XYf`i`bg]W`Yf`Y]h"8]Y`Dc`nY]`UfVY]hYh
XUfUbž`X]Y`9fa`]h`i`b[gYf[YVb]ggY`gW`bY`gha`Ò[`]W`ni
dfÀgYbh]YfYbž`i`a`X]Y`6Øf[Yf`ni`]bZcfa`]YfYb`i`bX`ni`VYfi` \][Yb"

5i`Zfi`Z`ni`f`A`]h`]\`ZY

8]Y`Dc`nY]`UddY``]Yfh`Ub`X]Y`6Øf[Yf`j`cb`HfUi`bghY]b`i`bX`XYf
l`a`[YVi`b[ž`k`UW`gUa`ni`gY]b`i`bX`YXY`i`b[Yk`Ò\b`]W`Y`G]hi`Uh]cb
ni`a`Y`XYb"8Yf`GW`i`h`XYf;`Ya`Y]bgW`UZh`ghY`h`Ub`c`VYfghYf
GhY``Yž`i`bX`Yg`]gh`j`cb`YbhgW`Y]XYbXYf`6YXYi`hi`b[ž`XUgg
a`Ò[`]W`Yfk`Y]gY`j`cf`\UbXYbY`ϕZcfa`Uh]cbYb`ØVYf`XYb`J`cfZU``
gW`bY`gha`Ò[`]W`ni`f`J`YfZØ[i`b[`]`[YghY`h`k`YfXYb"ϕ`Y]bYf`NY]hž`]b
XYf`ÒZYbh`]W`Y`G]W`Yf`Y]h`]a`a`Yf`k`]W`h][Yf`k`]fXž`]Y[h`Yg`Ub`i`bg

U`Ybžni `YZYbžk c`k]f`_ÖbbYbž i a `gc`WXY`J cfZÄ`Y`ni
j Yf\]bXYfb"

⊕g[YgUa h`nY][h`X]YgYf`J cfZU`ž`k]Y`i bYfk UfhYh`i bX`gW`bY`
; Yk U`h`Ui ZhfYhYb`_Ubbž`i bX`k]Y`k]W`h][`Yg`]ghž`XUgg`X]Y
² ZZYbh]W`_Y]h]b`XYf`@U[Y`]ghž`gW`bY`ni `fYU[]YfYb`i bX
[Y[YVYbYbZU`g`X]Y`6Y\ÖfXYb`ni `]bZcfa]YfYb" `8Yf`GW`i h`n`XYf
Y][YbYb`G]W`Yf\Y]h`i bX`X]Y`G]W`Yf\Y]h`UbXYfYf`Y[h`]b`i bgYfYb
<ÄbXYb" `>XY`⊕Zcfa Uh]cb`_Ubb`Yb`hgW`Y]XYbX`gY]b"

⊕`XYb`YhnhYb`>\fYb`[UV`Yg`]b`8Yi hgW`UbX`Y]bYb`5bgh]Y[`j`cb
; Yk U`h`j YfvfYW`Yb`ja `ÖZZYbh]W`Yb`FUi a `8]Yg`VYhf]Zh`b]W`h`bi`f
[fc»Y`GhÄXhYž`gcbXYfb`Ui W`ÄbX`]W`Y; YV]YhY`k]Y`HfUi bghY]b"
@Ui h`Y]bYf`GhUh]gh]_`XYg`6i bXYg_f]a]bU`Ua hYg`f6?5L]gh`X]Y`NU\`
XYf`?ÖfdYfj Yf`Yhni b[Yb`]b`XYb`YhnhYb`ZØbZ`>\fYb`i a `Yhk U`%\$ı
[Ygh]Y[Yb" `8]Yg`k]fZh: fU[Yb`ni `XYb`i fgUW`Yb`i bX`XYb`gc`n]U`Yb
6YX]b[i b[Yb`Ui Zž`X]Y`ni `gc`W`Yb`J cfZÄ`Y`b`ZØ`fYb`_ÖbbYb"
8]j YfgY`Gh`X]Yb`nY][Yb`Y]bYb`Ni gUa`a`Yb`Ub[`nk]gW`Yb`gc`n]U`Yf
l b[`Y]W`Y]h`i bX`ghY][YbXYf`; Yk U`h`_f]a]bU`]hÄh`Gcn]U`Y
8]gdUf]hÄhYbž`5fVY]hg`cg][_Y]h`i bX`a`Ub[Y`bXY`DYfgdY`_h]j Yb
k YfXYb`cZh`U`g: U`hcfYb`[YbUbbhž`X]Y`ni `5[[fYgg]cbYb`i bX
; Yk U`h`ZØ`fYb`_ÖbbYb"

9]b`k]W`h][Yf`5gdY`_h]gh`X]Y`F`c`Y`XYf`Dc`]nY]i bX`XYf
GhfUz] YfZc`[i b[gVY\ÖfXYbž`X]Y`ni bY`a`YbX`[YZcfXYfh]g]bXž`]b
gc`W`Yb`G]h`i Uh]cbYb`gW`bY`ni `fYU[]YfYb" `8]Y`Dc`]nY]i]b
HfUi bghY]b`Ub`VYfY]hg`Ub[Y`_ØbX][hž`j YfghÄf`_h`DUhfci]`Yb`]b`XYf
GhUXh`Xi fW`ni ZØ`fYbž`i a `Y]b`[fÖ»YfYg`G]W`Yf\Y]hg[YZØ`VY]`XYf
6Yj Ö`_Yfi b[`ni `gW`UZZYb" `9g`V`Y]Vh`YXcW`UVni k UfhYbž`cV`X]YgY
A U»bU`a`Yb`Ui W`bUW`U`h][`k]f`_Yb`_ÖbbYb"

NYi [Yb\]bk Y]gY`i bX`G]W`Yf\Y]hgd`c`]h]_

8]Y`Dc`]nY]i`UddY`Yfh`Ub`X]Y`6Øf[Yfž`VY]`XYf`5i Z`Äfi b[`j`cb
J cfZÄ`Yb`k]Y`X]YgYa`_U`_h]j`a`]hni k]f`_Yb" `NYi [Yb`g]bX
Yb`hgW`Y]XYbX`ZØf`X]Y`9fa]h`i b[`]b`gc`W`Yb`i: Ä`Yb" `8U`Yf`g]bX
fY[Y`a`Ä`][Y`⊕Zcfa Uh]cbYb`ØVYf`X]Y`A`Ö[`]W`_Y]hYbž`k]Y`6Øf[Yf
<]bk Y]gY[YVYb`_ÖbbYbž`j`cb`[fc»Yf`6YXYi`hi`b[`Ni`gÄh`n]W`k`]fX

Ui Z'X]Y`K]W h][_Y]h]j cb`B UWVUfgW UZhkg UWYb`i bX`c_U`Yb
=b]h]Uh]j Yb`ni f` : ÒfXYfi b[`j cb`G]WYf\Y]h]a` GhUXh[YV]Yh
\b[Yk]YgYb`"Gc`WY`Dfc[fUa a Y`\UVYb`]b`j]Y`Yb`GhÅXhYb`XUni
VY][YhfU[Ybž`XUg`G]WYf\Y]hg[YZØ\`i bX`X]Y`DfÅj Ybh]cb`j cb
GhfUZhUhYb`ni `j YfVYggYfb"

9]bV`]W_Y`]b`6Yf]W hY`ØVYf`À\b`]WY`J cfZÅ`Y`]b`8Yi hgW`UbX
nY][Ybž`XUgg`Y]b`\c\Yf`5bhY]`XYf`5b[f]ZY`Ui Z`5i hcZU\fyf`cZh`Ui g
i bj cf\YfgY\VUFYb`GhfY]h][_Y]hYb`cXYf`A]ggj YfghÅbXb]ggYb
YbhghY`h"8]Y`Dc`]nY]`fÅh`5i hcZU\fyfbž`]b`gc`WYb`G]hi Uh]cbYb`F i \Y
ni `VYk U\fyb`i bX`_Y]bY`?cbZfcbhUh]cbYb`Y]bni [Y\Yb`"7mVYf!
, VYfk UW`i b[`i bX`X][]hU`Y`5`Ufa]Yfi b[gX]YbghY`_ÒbbhYb`]b
Ni _i bZh`YVYbZU`g`Y]bY`F c`Y`gd]Y`Ybž`i a`X]Y`G]WYf\Y]h]a
GhfU» Ybj Yf_Y\`f`ni `Yf\Ò\Yb`i bX`A YbgWYb`j cf`dchYbn]Y`
[YZÅ\`f`]WYb`G]hi Uh]cbYb`ni `k UfbYb"

8YhU]`g

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