

9]bVfYWX Yf`gh]Y\`h`A YfWXYg`]b`6UX
K]\`Y`a g\`O\`Y` `Dc`]nY]`gi WXh`NYi [Yb

9]bVfYWX Yf`Ybh_ca a h]b`? UggY`a]h`A YfWXYg`bUWX
9]bVfi WX"Dc`]nY]`gi WXh`<]bk Y]gY`ni`HUhc`fh`i bX`:`U\`fnYi ["

⊕`XYf`BUWX`h`ni a `A]hk cWX`ž`[YbUi Yf`[YgU[h`nk]gWX`Yb`(`" \$`i bX
)" \$`i \fž`YfY][bYhY`g]WX`Y]b`9]bVfi WX`]b`? UggY`ž`XYf`ZØf
5i ZFY[i b[`gcf[h`9]b`I bVY_UbbhYf`a UWX`hY`g]WX`]b`Y]bYf`K c\bi b[
]b`XYf`K]\`Y`a g\`O\`Yf`5`YYž`]b`XYf`BÀ\`Y`XYf`6Ui bgVYf[ghfU» Yž`ni
gWX`UZZYb`"8]Y`6Yg]hnYf]b`XYf`K c\bi b[`VYa Yf`hY`b]WX`hgž`XU`g]Y
gWX`]Yž`k À\`fYbX`XYf`HÀ`hYf`X]Y`; Y`Y[Yb\`Y]h`bi hnhYž`i a`i b[YghØfh
j`cfni Xf]b[Yb"

8]Y`J`cf[Y\`Ybgk Y]gY`XYg`9]bVfYWX`Yfg`k Uf`fY`Uh]j`Y]bZUWX`ž`UVYf
YZZ`_hj`"9f`j YfgWX`UZZhY`g]WX`Ni [Ub[`ni f`K c\bi b[`Xi fWX`Y]bY
[Y_]ddhY`HYffUggYbhØf" ⊕`XYf`NY]h`gY]bYg`9]bXf]b[Ybg
Ybhk YbXYhY`Yf`b]WX`h`bi f`Y]b`HUV`Yh`i bX`Y]bYb`_`Y]bYb
; Y`XVYhfU[ž`gcbXYfb`Ui WX`Y]bYb`GWX`ØggY`ni`Y]bYa`gWX`k UfnYb
A YfWXYg`5!`?`UggYž`XYf`j`cf`XYa`A`Y\`fZJa`]`Yb\`Ui`g[YdUf`_`h`k`Uf`

8 YhU]`g`ni a`HUhc`fh`i bX`ni f`6Yi hY

8Yf`A`YfWXYgž`Y]b`:`U\`fnYi [`a`]h`Y]bYa`K`Yfhj`cb`Yhk`U`%(`\$\$\$
9i fcž`k`i`fXY`X]fY`_`h`bUWX`XYa`9]bVfi WX`j`cb`XYa`HÀ`hYf
Ybhk`YbXYh`@Ui`h`5b[UVYb`j`cb`Dc`]nY]gdFYWX`Yf]b`I`f`_`Y`GWX`UU`_`Y
k`i`fXY`XUg`:`U\`fnYi [`a`]h`XYa`Ua`h`]WX`Yb`?`YbbnY]WX`Yb`?`G!`»`&%`
[Yghc`\`Yb`"Hf`ch`]bhYbg]j`Yf`:`U\`bXi`b[ga`U»`bU\`a`Yb`]gh`V]g`Y`hnh
_`Y]bY`Gdi`f`j`cb`XYa`fi`bX`nk`Ò`Z`»\`fY`U`hYb`5i`hc`[YZ`bXYb
k`cfXYb"

8]Y`Dc`]nY]`\`Uh`VYfY]hg`Y]bY`ÖZZYbh`]WX`Y`Gi`WX`Y`bUWX`XYa`:`U\`fnYi [

]b[h]]Yfhi bX`V]hYh`X]Y`6Yj Ò`_Yfi b[`i a `<]bk Y]gY" `>XY
6YcVUW`hi b[` _ÒbbhY`YbhgW`Y]XYbX`gY]bž`i a `XYb`H`hYf`ni
Z]bXYb ž`gc`G`W`UU`_Y" `5i [YbnYi [Yb`cXYf`DYfgcbYbž`X]Y`k `À`fYbX
XYf`Ub[Y[YVYbYb`NY]h`Yhk Ug`J YfX`A`W`h][Yg`VYa Yf`h`U`VYbž
k YfXYb`Ui Z[YZcfXYfhž`g]W`i bhYf`XYf`HY`YZcbbi a a Yf`\$) *`%#`%\$`\$
ni `a Y`XYb"

9]bVfi W`ghUh]gh]_`i bX`XYfYb`6YXYi hi b[

9]bVfØW`Y`g]bX`]b`gh`A`X]gW`Yb` ; YV]YhYb`b]W`h`gY`hYbž`i bX`X]YgYf
J`cfZU`k`]fZi`Y]b`@]W`h`Ui`Z`X]Y`G]W`Yf`Y]hg`U[Y`]b`?`UggY" `8]Y
Dc`nY]`U`h`g`W`cb`a`Y`f`a`U`g`ni`J`cf]g]W`h`Ub[Ya`U`b`hž
]bgVYgcbXYfY`]b`6Yni [`Ui`Z[Y_]d`d`hY` : YbghYf`i bX`HYffUggYb`h`ØfYbž
X]Y`c`Zi`Y]W`h`j`cb`9]bVfYW`Yfb`[Ybi`h`h`k`YfXYb`_ÒbbYb" `8]Y`HUh
nY][hž`k`]Y`k`]W`h][`Yg`]ghž`G]W`Yf`Y]hg]`cf`_Y`fi`b[Yb`ni`h`fY`ZYbž`i`a
K`c`b`i`b[Yb`j`cf`i`b[YVYhYbYb` ; `A`ghYb`ni`g`W`Ø`h`nYb"

8Yf`J`Yf`i`gh`Y]bYg` : U`fnYi [g`_Ubb`ZØf`j`]Y`Y`A`YbgW`Yb`Yf`YV`]W`Y
Z]bUbn]Y`Y`i`bX`Ya`ch]cbU`Y`5i`gk`]f`_i`b[Yb`U`VYb" `8]Y`Dc`nY]
k`Ufb`h`XUj`cfž`g]W`h`Ui`Z`X]Y`G]W`Yf`Y]h`XYg`Y][YbYb`9][Ybhi`a`g`ni
j`Yf`UggYbž`VYgcbXYfg`]b`Y]bYf`NY]hž`]b`XYf`9]bVfØW`Y`k`]YXYf
ni`bY`a`Yb`_ÒbbhYb" `Df`Å]Ybh]j`Y`A`U`»`bU`a`Ybž`k`]Y`VY]gd]Y`gk`Y]gY
XUg`G]W`Yfb`j`cb`HØfYb`i`bX` : YbghYfbž`k`YfXYb`]a`a`Yf`k`]YXYf
VYh`cb`h"

8YbbcW`V`Y]Vh`X]Y`[YbUi`Y`A`ch]j`Uh]cb`XYg`H`hYfg`i`bX`XYf` ; fi`bXž
k`Ufi`a`Yf`[YfUXY`X]YgYg` : U`fnYi [`Ui`g[Yk`À`h`h`U`hž`i`b`_Uf" `č
5bVYhfUW`h`XYf`U`_hi`Y`Yb`9]bVfi`W`ghUh]gh]_Yb`i`bX`XYf
[Ygh]Y[YbYb`?`f]a`]bU`]h`h`gf`UhY`]b`VYgh]a`a`hYb`HY]`Yb`XYf`G`hUX`h`]gh
Yg`j`Yfgh`A`bX`]W`ž`XUgg`j`]Y`Y`6Øf[Yf`VYgcf[h`g]bX`i`bX`g]W`h`ZfU[Ybž
k`]Y`g]Y`g]W`h`VYggYf`g`W`Ø`h`nYb`_ÒbbYb"

5i Zfi Z`ni f`K`UW`gUa`_Y]h

8]YgYf`J`cfZU`gh`Y]b`_`UfYf`F`Ya`]bXYfž`k`]Y`k`]W`h][`K`UW`gUa`_Y]h
]b`XYf`Y][YbYb`B`UW`VUfgW`UZh]gh" `8]Y`Dc`nY]`f`A`h`X`Uni`ž`g]W`
[Y[YbgY]h][`ni`i`bhYfghØ`h`nYb`i`bX`j`YfX`A`W`h][Y`5`_h]j`]h`hYb`gcZcfh
ni`a`Y`XYb" `8`UVY]`]gh`Yg`Yb`hgW`Y]XYbXž`Y]b`[i`hYg`J`Yf`A`h`b]g`ni

B U\W VUfb`Ui Zni VUi Ybž`i a`]b`? f]gYbg]hi Uh]cbYb`gW\ bY`Y`ZYb`ni
_ÒbbYb`"9]b`k U\W gUa` Yg`5i [Y`Ui ZX]Y` ; YgW\Y`b]ggY`]b`XYf
GhfU» Y`_Ubb`Y`ZYbž`9]b`VfØW\Y`ni` j` Yf\]b`XYfb`i` bX`X]Y`G]W\Yf\Y]h
U`Yf`ni` Yf\Ø\Yb`"

5b[Yg]W\hg`XYf`k`]YXYf_Y`fYbXYb`DfcV`Ya` Uh]_`]gh`Yg`k`]W\h[ž`XUgg
X]Y` ; Ya` Y]bgW\UZh`ni` gUa` a` YbUfVY]hYhž`i` a`]b`g]W\YfYg`i` a` ZY`X`ni`
gW\UZZYb`"8Yf`9]b`Vfi` W\]b`XYf`K`]`Y`a` g\Ø\Yf`5`YY`_ÒbbhY`XYf
5bghc»`gY]b`ZØf`a` Y`f` ; YgdF`W\Y`ØVYf`G]W\Yf\Y]hi` bX
B U\W VUfgW\UZhg\`]ZY`"

8]Y`? f]a`]bU`]h`hgghUh]gh]_`]b`8Yi` hgW\`UbX`\Uh`]b`XYb`Y`hnhYb
`Y`fYb` [YnY][hž`XUgg`9]b`VfØW\Y`]b`K` c\bi` b[Yb`i` bX`<`Ài` gYf`Y]b`Yg
XYf`\`Ài` Z][ghYb`8Y`]_hY`g]bX`" @Ui` h`XYa` `6i` bXYg_f]a`]bU`Ua` h
k`i` fXYb`]a` `Y`f`&\$\$&`ØVYf`%\$\$`\$\$\$`9]b`VfØW\Y`fY` []ghf]Yfhž`k` Ug
Y]b`Yb`Y`W\hYb`F`ØW`_ [Ub` []a`]Yf` [Y]W\`ni` XYb`j` c f\Yf][Yb`Y`fYb
XUfghY`h`8Yb`bc`W\`gcf` [h`XUg`H`Y`a` U`9]b`Vfi` W\`ZØf`Ub`\U`hYb`XY
6Ygcf` [b]g]b`XYf`6Yj` Ò`_Yfi` b[" `gVYgcbXYfY`k` À`fYb`X`XYf
B U\W hghi` bXYbž`k` Ybb`j`]Y`Y`A` YbgW\Yb`gW\`UZYbž`g]bX`K` c\bi` b[Yb
ZØf`H`hYf`\`Ài` Z][Y]b`N]Y`"

9]b`Vfi` W\ggW\i`hn`i` bX`Df`Àj` Yb`h]c`b`

I`a`]g]W\` [Y[Yb`9]b`VfØW\Y`ni`]gW\`ØhnYbž`Ya` dZY`\`Yb`9I` dYfhYb
j`YfgW\]YXYb`Y`G]W\Yf\Y]hga` U» bU`a` Yb`"8`Uni` [Y`\`ØfYb`X`Ug
`gghU`]YfYb`j`cb`G]W\Yf\Y]hgVYgW\`À` [Yb`Ub`H`ØfYb`i` bX` : YbghYfbž
X]Y`]Yfk` YbXi` b[]cb`5`Ufa` Ub`U` [Yb`gck`]Y`X]Y`5bVf]b[i` b[]cb
6Yk` Y[i` b[ga` Y`XYfb`]a` `5i` » YbVYfY]W\`"8]Y` J`YfV`Àb`XY`XYf`
G]W\Yf\Y]hghY`W\`b]_`V]YhYb`i` a` ZUggYbXY` `gZcfa` Uh]cbYb`ni
YZZY`_hj` Yb`Df`Àj` Yb`h]c`b`ga` U» bU`a` Yb`Ub`"

Ni`g`Àh`]W\`_Ubb`Y]bY` [i`hY`B`U\W`VUfgW\UZhg`_i` `hi`f`XUVY]`Y`ZYbž
9]b`VfØW\Y`ni`fYXi`n]YfYb`"B`U\W`VUfb`gc`hYb`XUfUi`Z`U\W`hYbž`cV
i`b[Yk`Ø\b`]W\Y`5`_hj]h`h`hYb`cXYf`ZfYa`XY`DYfgcbYb`]b`XYf
I`a` [YVi`b[`k`U`f[Ybca`a` Yb`k`YfXYb`"8]Y`c`_U`Y`Dc`nY]`V]YhYh
\`Ài` Z][`gZcfa` Uh]cbgj`YfUbghU`hi` b[Yb`Ubž`i` a`X]Y`6Øf[Yf`ØVYf
9]b`Vfi` W\ggW\i`hn`ni`]gYbg]V]`g]YfYb`i` bX`dfU`_h]gW\Y`H]ddg`ni
[YVYb`"

Gcn]U`Y`i bX`k]fhgW\ UZh`]W\ Y`5i gk]f_i b[Yb
j cb`9]bVfØW\ Yb

9]bVfØW\ Y`UVYb`b]W\ h`bi f`d`mg]gW\ Yž`gcbXYfb`Ui W\`dgmW\]gW\ Y
i bX`k]fhgW\ UZh`]W\ Y`5i gk]f_i b[Yb`Ui ZX]Y`CdZYf`J]Y`Y`6YhfcZZYbY
ZØ\`Yb`g]W\`b`]\fYa`Y][YbYb`Ni`Ui`gY`i bg]W\ Yfž`k Ug`ni`Y]bYa
J Yf`i gh`XYg`G]W\ Yf\Y]hg[YZØ\`g`ZØ\`fh"@Ui`h`Y]bYf`I`a`ZfU[Y`XYg`
**GhUh]gh]gW\ Yb`6i bXYgUa hYg`[YVYb`fi bX`\$`i`XYf`
9]bVfi W\gcdZYf`Ubž`XUgg`g]Y`g]W\`bUW\`XYa`J`cfZU``i`bg]W\ YfYf`
ZØ\`Yb`"**

J c`_gk]fhgW\ UZh`]W\`VYhfUW\ hYh`g]bX`9]bVfØW\ Y`YVYbZU``g`b]W\ h`ni
j YfbUW\`Àgg][Yb``8]Y`\c\Y`5bnU\``Ub`9]bVfØW\ Yb`ZØ\`fh`ni
Ybcfa`Yb`?cghYb`ZØf`X]Y`; YgY``gW\ UZhž`Y]bgW\`Y»`W\`[Ygh]Y[YbYf`
J Yfg]W\ Yfi b[g_cghYb`i bX`XYf`bchk`YbX][Yb`#j`Ygh]h]cbYb`]b
G]W\ Yf\Y]hga`U»`bU\`a`Yb``8]Yg`_Ubb`g]W\`]bgVYgcbXYfY`]b
gh`Xh]gW\ Yb`; YV]YhYb`VYa`Yf`_VUf`a`UW\ Ybž`k`c`X]Y
?f]a`]bU`]h`hgfUhYb`\`Ø\`Yf`g]bX`"

8YhU]`g

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