

9]bVfi W\ gk Y`Y]b `@ Xk][g\ UZYb. `Dc`nY]
gi W\ h`NYi [Yb `ni `8]YVghA\ `Yb

⊕ `@ Xk][g\ UZYb `Ua `Yg`ni `a Y\ fYfYb `9]bVfØW\ Yb `i bX
8]YVghA\ `Yb `j cb `: U\ ffA\ XYfb `i bX `F c`Yfb" `8]Y `Dc`nY]`gi W\ h
NYi [Yb "

8]Y `? f]a]b U`hÅhg fUHy `]b `@ Xk][g\ UZYb `V`Y]Vh`Y]b `U`hi Y`Yg
H\ Ya U`ž`XYbb `X]Y `Dc`nY]`U`h]b `XYb `Y`hnhYb `HU [Yb `a Y\ fYfY
9]bVfØW\ Y `i bX `8]YVghA\ `Y `]a `GhUXh [YV]Yh [Ya Y`XYh" `8 UVY]
\ UbXY `hYg`g]W\ `i a `i bhYfgW\]YX `]W\ Y `J cfZÅ`Yž`X]Y `]a `NY]hfUi a
j cb `GcbbhU [`V]g `A cbhU [`ghUhhZUbXYb" `9]b `VYgcbXYfYf `: c`_i g`Y [h
Ui ZY]bYa `A cZUfc`Yf `i bX `Y]bYa ` [Yghc\ `YbYb `: U\ ffUX "

5a `gdÅhYb `GcbbhU [UVYbX `i bX `]b `XYb `ZFØ\ Yb `Ghi bXYb `XYg
A cbhU [g`j YfgW\ k UbX `Y]b `A cZUfc`Yf `XYf `A Uf`_Y `DYi [Ych`Ui g`XYf
: YfX]bUbX! : fY] [fUh\ !GhfU» Y `]a `GhUXhhY]`GØX" `8 Yf `F c`Yf `k i fXY
Ua `A cbhU [j cfa]hhU [`]b `VYgW\ ÅX] [hYa `Ni ghUbX `Y]b [Y`< Åi gYf
k Y]hYf `Ui Z [YZi bXYbž`k Ug`X]Y `Dc`nY]`]b `Y]bY `i bUb [YbY\ a Y
G]hi Uh]cb `VfUW\ hY" `8 Yf `ZYgh [YghY`hY `GW\ UXYb `VY `Åi Zh]g]W\ `Ui Z
Yhk U`%\$\$ `9i fc" `Gc`W\ Y `8]YVghA\ `Y `k YfZYb `b]W\ h`bi f`Y]b `@]W\ h`Ui Z
X]Y `8]YVghU\ `dfcV`Ya Uh]_ `]b `XYf `GhUXhž`gcbXYfb `UggYb `Ui W\
: fU [Yb `ni `G]W\ Yf\ Y]hga U» bU\ a Yb `Ui Z`ca a Yb "

8]YVghU\ `Y]bYg `: U\ ffUXg `]b `XYf
6YbW_]gYfghfU» Y

9]b `k Y]hYfYf `J cfZU`YfY] [bYhY `g]W\ `nk]gW\ Yb `XYa `%" `i bX`%- "
5i [i gh" ⊕ `XYf `6YbW_]gYfghfU» Yž [Y`Y [Yb `]a `GhUXhhY]`A]hhYž
VfUW\ Yb `V]g`Ub [`i bVY`Ub`bhY `HÅhYf `]b `Y]b `? Y`YfUVhY]`Y]b" `8 UVY]
ghU\ `Yb `g]Y `Y]b `cW\ k Yfh [Yg `: U\ ffUX `XYf `A Uf`_Y `6i `gž`XYggYb
K Yfh`Ui Zfi bX `&\$ \$ `9i fc [YgW\ Åhnh`k]fX" `8]YgY `5fhj cb `8]YVghU\`

]gh`VYgcbXYfg`Àf[Yf`W`ZØf`X]Y`C dZYfž`X]Y`Ui Z]\f` : U\fnYi [Ub[Yk]YgYb`g]bXž`i a`ni f`5fVY]h`ni` [Y`Ub[Yb`cXYf`]\fY` : fY]nY]h`ni [Yb]Y»Yb"

8]Y`Dc`nY]\`Uh]b`VY]XYb` : À`Yb`i a`A]h\`]ZY`Ui g`XYf`6Yj Ò`_Yfi b[[YVYhYb``NYi [YbUi ggU[Yb`_ÒbbYb`YbhgW`Y]XYbX`gY]bž`i a`X]Y HÀhYf`ni`Yfa`]hY`b``<]bk Y]gY`_ÒbbYb`Ub`X]Y`Dc`nY]]bgdY`_h]cb`% i bhYf`XYf`HY`YZcbbi a`a Yf`\$*`&%#`*'`!&%&`cXYf`dYf`9!A U]`Ub d]i Xk] [g\UZyb`%4 dc`nY]"f`d`"XY`k Y]hYf[Y [YVYb`k YfXYb"

9]bVfi W`gj Yfgi W`]a`A Y`fZUa`]`Yb`Ui g`

9]b`k Y]hYfYf`g]W`Yf\Y]hgY`Yj UbhYf`J cfZU`k i fXY`YVYbZU`g [Ya Y`XYhž`i bX`nk Uf`Y]b`9]bVfi W`gj Yfgi W`]b`Y]b A Y`fZUa`]`Yb`Ui g`]b`XYf`@]hdc`XghfU»Y`]a`GhUXhhY]` : f]YgYb\Y]a` " Nk]gW`Yb`XYa` `("5i [i ghž`%`I \fž`i bX`XYa` %- "5i [i ghž`%- .` \$ I \fž`j Yfgi W`hYb`i bVY`_UbbhYž`g]W`Ni [Ub[`ni f`K c\bi b[`ni j YfgW`UZZYb`` ; `ØW`_]W`Yfk Y]gY`V`YV`Yg`VY]a` J Yfgi W`ž`gcXUgg _Y]b` [fÒ»YfYf`GW`UXYb`YbhghUbX``8cW`X]Y`Dc`nY]`VYn]ZZYfh`XYb YbhghUbXYbYb`GW`UXYb`Ui Z%) \$`9i fcž`k Ug`nY][hž`k]Y`k]W`h][`Yg]ghž`gc`W`Y`J cfZÀ`Y`Yfbgh`ni`bY`a`Yb"

8]Y`Dc`nY]\`Uh`ZØf`X]YgYb` : U`YVYbZU`g`Y]bY`<ch]bY`Y]b[Yf]W`hYh` NYi [Yb`k YfXYb` [YVYhYbž`g]W`X]fY`_h`Ub`X]Y`?f]a`]bU`dc`nY] @ Xk] [g\UZyb`ni`k YbXYb``8]Y`?cbhU`hXUhYb`g]bX`X]Y HY`YZcbbi a`a Yf`\$*`&%#`*'`!&+++`gck]Y`X]Y`9!A U]`!5XfYggY ?8@ Xk] [g\UZyb`"?`=`"?`%4 dc`nY]"f`d`"XY"

8]YgY`J cfZÀ`Y`j YfXYi`h]W`Yb`b]W`h`bi f`X]Y`VYghY`YbXYb G]W`Yf\Y]hgdfcV`Ya`Y`]b`@ Xk] [g\UZybž`gcbXYfb`fi ZYb`Ui W`bUW` Y]bYf`U`_h]j Yb`6YhY]][i b[`XYf`6Øf[Yf``9g`Y[h]b`XYf`<UbX`XYf` 6Yj Ò`_Yfi b[ž`j YfXÀW`h][Y`5`_h]j]hÀhYb`ni`VYcVUW`hYb`i bX`gW`bY`` ni`a`Y`XYb"

9f`Ò`i b[`XYg`G]W`Yf\Y]hgVYk`i gghgY]bg`

⇒5bVYhfUW`h`XYf`Øb[ghYb`9fY][b]ggY`k]fX`X]Y`K]W`h][_Y]h`Y]bYg Yf\Ò`hYb`G]W`Yf\Y]hgVYk`i gghgY]bg`]b`XYf`B UW`VUfgW`UZh]a`a Yf`

XYi h]WXYf"6Yk c\bYf'k YfXYb'Yfa i h][hž'fY[Y'a Å»][Y'?'cbhfc`Yb
Xi fWni ZØ\fYb'i bX'Ui Zi b[Yk Ò\b`]WYg'J Yf\U'hYb'ni 'UW hYb"8]Y
Dc`nY]'f]W hYh'Y]bYb'5ddY`Ub'U`Y'6Øf[Yf.'š'a Y\f'5i [Yb'Ui ZX]Y
I a [YVi b['[Yf]W hYh'k YfXYbž'XYghc'gWk]Yf][Yf'k]fX'Yg'ZØf
?f]a]bY`Yž'i bYb hXYW_h'ni 'V'Y]VYb"

Ni gÅh`]W`gc`hYb'9][YbhØa Yf'j cb': U\fnYi [Yb'i bX
; Y[YbghÅbXYb'[YY][bYhY'GW i hma U» bU\ a Yb'Yf[fY]ZYbž'n"6"X]Y
J Yfk YbXi b['j cb'fcVi ghYb'GW`ØggYfb'i bX'5`Ufa Ub`U[Ybž'i a ']\f
9][Ybhi a 'ni 'g]WYfb" `đ'Y]bYf'NY]hž']b'XYf'8]YVghÅ`Y']a a Yf
\Ai Z][Yf'j cf_ca a Ybž'_ØbbhY'a Ub'X]YgY'dfcU_h]j Yb'GWf]hY'U`g
YggYbh]Y`Y'A U» bU\ a Yb'VYhfUW hYbž'i a ']a 'Y][YbYb'K c\b'ia ZY`X
Y]b'; YZØ`'j cb'G]WYf\Y]h'ni '[Yk Å\`fY]ghYb"

Gc`WY'J cfZÅ`Y'k]Y'9]bVfØWY'i bX'8]YVghÅ`Y'g]bX']b'i fVUbYb
; YV]YhYb`Y]XYf'\Ai Z]['Ubni hfYZZb" `đ'@ Xk][g\UZYb'_cb_fYh
gd]Y[Y'h]g]W'Y]b'U`[Ya Y]bYf'HfYbX'k]XYfž'XYf']b'j]Y'Yb'GhÅXhYb
8Yi hgW`UbXg'ni 'VYcVUW hYb']gh'8]Y'ghY][YbXY'?f]a]bU']hÅh']b
VYgh]a a hYb'GhUXhY]'Yb"8]Y'; fØbXY`\]YfZØf'g]bX'j]Y'ZÅ'h["'C Zh
g]bX'k]fhgW UZh]WY': U_hc fYbž'k]Y'\c\Y'5fVY]hg`cg][_Y]hi bX
gc n]U'Y'I b[`Y]W\Y]hYbž'Ui ggW`U[[YVYbX"9]bY'I bhYfgi W i b[
XYg'?f]a]bc`c[]gWYb': cfgW i b[g]bgh]hi hg'B]YXYfgUW gYb'nY][h
ni XYa ž'XUgg'ghÅXh]gWY'; YV]YhY'hYbXYbn]Y`'\ Ò\YfY
?f]a]bU']hÅhg fU hYb'Ui Zk Y]gYb'U'g`ÅbX']WY'FY[]cbYbž'k Ug'Ui ZX]Y
j YfX]W hYh'Y'K c\b]g]hi Uh]cb'i bX'X]Y'5bcbma]hÅh']b'GhÅXhYb
ni fØW_ni ZØ\fYb']gh"K Y]hYfY' `đZcfa Uh]cbYb'g]bX'Ui ZX]Yf'GY]hY'XYg
**?f]a]bc`c[]gWYb': cfgW i b[g]bgh]hi hg'B]YXYfgUW gYb'ni
Z]bXYb"**

9]bV`]W_Y']b'X]Y'GhUh]gh]_`ni f
9]bVfi W_g_f]a]bU`]hÅh

8]Y'Dc`nY]'WY'?'f]a]bU`ghUh]gh]_`fD? GŁ'XYg'6i bXYg_f]a]bU`Ua hYg
V]YhYh'k Yfhj c`Y'8 UhYb'ni '9]bVfØWYb'i bX'8]YVghÅ`Yb']b
8Yi hgW`UbX" @Ui h'XYf'D? G [UV'Yg']a 'š\`f'&\$&&]bg[YgUa h
, , " &+'K c\b'ib[gY]bVfØWYž'k Ug'Y]bYb'FØW_[Ub[']a ']Yf[`Y]W
ni 'XYb'J cf'U\ fYb'XUfghY`h"8 Yb b cW`g]bX'X]Y'NU\`Yb'ZØf
ghÅXh]gWY'; YV]YhY'k]Y'@ Xk][g\UZYb'VYgc f[b]gYffY[YbXž'XU'g]Y

hYbXYbn]Y``\Ö\YfY'9]bVfi W\gnU\`Yb`Ui Zk Y]gYb" `@ Xk][g\UZYb
gY`Vgh`VYf]W\hYh`X]Y`Dc`nY]`b`XYf`U`hi`Y``Yb`GhUh]gh]_`j`cb`Y]bYa
5bg]Y[`XYf`9]bVfØW\Y`]b`VYgh]a`a`hYb`GhUXhhY`Ybž`]bgVYgcbXYfY
]b`XYb`k`Yb][Yf`[i`h`VY`Yi`W\hYhYb`i`bX`VYj`Ö`_YfhYb`6YfY]W\Yb"

9]b`k`Y]hYfYf`Di`b`_h`]gh`X]Y`G\W\UXYbg\Ö\Y.`8]Y`Xi`fW\gW\b]h]W\`VY]
9]bVfØW\Yb`Yb`hghUbXYbYb`G\W\ÅXYb`g]bX`a`]h`Yhk`U` "\$\$\$`V]g
("\$\$\$`9i`fc`dfc`:`U``XYi`h`]W\`Ö\Yf`U`g`]b`XYb`Øb[gh`VYf]W\hYhYb
: `Ä`Yb`]b`@`Xk`][g\UZYb" `8]Yg`i`bhYfghfY]W\h`X]Y`B`chk`YbX][`_Y]h`ZØf
A`U»`bU\`a`Yb`ni`f`J`YfVYggYfi`b[`XYf`G]W\Yf\Y]hž`gck`c`\`]b`XYf
]bX]j`]Xi`Y``Yb`U`g`Ui`W\`]b`XYf`[Ya`Y]bgW\UZh]W\Yb`J`YfUbhk`cfhi`b["
8YhU]`g`XUfØVYf`g]bX`Ui`Z`XYf`<`ca`YdU[`Y`XYg
6i`bXYg`_f]a`]bU`Ua`hYg`j`YfZØ[`VUf"

;`YgY``gW\UZh`]W\Y`5gdY`_hY`i`bX
DfÄj`Yb]c`bga`U»`bU\`a`Yb

9]bVfi W\ggW\i`hn`]gh`Y]b`k`]W\h][Yg`H\Ya`U`ZØf`j`]Y`Y`5bk`c\`bYf`]b
@`Xk`][g\UZYb" `DfÄj`Yb]c`bga`U»`bU\`a`Yb`ž`k`]Y`Yhk`U`X]Y`@`ghU``Uh]c`b
j`cb`U`Ufa`[Yg]W\YfhYb`HØfYb`i`bX`:`Yb`ghYfb`cXYf`X]Y`HY]`bU\`a`Y`Ub
B`UW`VUfgW\UZh`gk`UW\Yb`ž`\UVYb`]b`j`]Y`Yb`GhÅXhYb`dcg]h]j`Y`9ZZY`_hY
[YnY][h" `8]Y`Dc`nY]`fÄh`ni`XYa`ni`Y]bYf`[i`hYb`6Y`Yi`W\hi`b[`]a
: fY]Yb`i`bX`ni`f`5i`ZbU\`a`Y`i`bUi`ZÄ``][Yf`G]W\Yf\Y]hg]c`f`_Y\`fi`b[Yb
]a`K`c\`bVYfY]W\`" `@]h]Uh]j`Yb`ni`f`GhY][Yfi`b[`XYg
G]W\Yf\Y]hgVYk`i`gghgY]bg`i`bX`ni`f`:`ÖfXYfi`b[`XYf
Ni`gUa`a`YbUfVY]h`nk`]gW\Yb`6Øf[Yfb`i`bX`Dc`nY]`\UVYb`]b`XYf
J`Yf[Ub[Yb\Y]h`XUni`VY][YhfU[Ybž`9]bVfØW\Y`ni`j`Yf\]bXYfb`i`bX
X]Y`:`Ya`Y]bgW\UZh`ni`ghÄf`_Yb" `8]Y`Dc`nY]`F`\Y]b`UbX!`DZU`n
V]YhYh`ni`X]YgYb`H\Ya`Yb`nU\`fY]W\Y`6YfUhi`b[gUb[YVchY`Ub"

B`YVYb`XYf`ghUUh]W\Yb`i`bhYfghØhni`b[`]gh`Yg`k`]W\h][ž`XUgg
5bk`c\`bYf`U`_h]j`k`YfXYb`i`bX`g]W\`]b`]fYb`B`UW`VUfgW\UZhYb
Yb[U[]YfYb" `8Yf`5i`ghUi`gW\`]b`XYf`:`Ya`Y]bgW\UZh`i`bX`X]Y
[Y[YbgY]h][Y`5W\hgUa`_Y]h`_ÖbbYb`XUni`ZØ`fYb`ž`XUgg`dchYbn]Y``Y
HÄhYf`UV[YgW\fYW`_h`k`YfXYb`i`bX`X]Y`@YVYbgei`U`]hÄh`]b`XYb
GhUXhhY]`Yb`ghY][h"

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