

@Ugh!A]bi hY!G]Y['ZØf'XYb 'J Z@'C gb UVfØW_ .
9]b 'G]Y['XYg'K]`Ybg°

8Yf'J Z@'C gb UVfØW_ 'ZY]YfhY']b'Y]bYa 'XfUa Uh]gWXYb'Gd]Y`
[Y[Yb'I bhYf\UW]b['XYb'YfghYb'GU]gcbg]Y['a]h'nk Y]'@Ugh!
A]bi hY!HcfYb"

8Yf'J Z@'C gb UVfØW_ '\Uh'Ua 'j Yf[Ub[YbYb'GUa ghU['Y]b
gdUbbYbXYg': i » VU`gd]Y` [Y[Yb'X]Y'GdJ [['I bhYf\UW]b['Yf'YVh
i bX'XUVY]b]W]h'bi f'XYb'YfghYb'GU]gcbg]Y['Y]b[YZU\fybž'gcbXYfb
Ui W]Y]b'XfUa Uh]gWXY'?Y\fhk YbXY'ja 'Gd]Y'j Yf'Ui Zj c`nc[Yb"
I a [YVYb'j cb'Y]bYf'ZfYbYh]gWXYb'?i`]ggY'Ui ZXYf'6fYa Y'6fØW_Y
_Äa dZhYb'g]W]X]Y'@]U!K Y]» Yb']b'Y]bYa 'gdUbbYbXYb'A UhW
ni fØW_ 'i bX'g]W]YfhYb'g]W]Ui ZXYb`YhYb'A YhYfb'XUg
YbhgW]Y]XYbXY" .&"

⊖'Y]bYa 'Gd]Y'ž'XUg'j cb'9a ch]cbYb'i bX'K YbXi b[Yb'[YdfÄ[h'k Ufž
a i gghYb'X]Y'; Ugh[YVYf'ni bÄW]gh'Y]bYb'FØW_ghUbX'\]bbY\ a Ybž
VYj cf'g]Y'XUb_`UhY![Ua Y'\Yfc]W]XYbbcW]XYb'j c`Yb
Di b_hYgUhm'j YfVi W]Yb'_cbbhYb""8]YgY'K YbXY']b'XYf'DUfh]Y
_ca a h'VYgcbXYfg'ni f'f]W]h][Yb'NY]hž'XU'XYf'J Z@'ni j cf'nk Y]
B]YXYf'U[Yb'c\ bY'Y][YbYb'HfYZZYf'\]bbY\ a Yb'a i gghY""HfU]bYf
I k Y'?cgW]bUh'Äi » YfhY'g]W]bUW]XYa 'Gd]Y`Yf'Y]W]hYfh'i bX
gdfUW]j cb'Y]bYa 'G]Y['XYg'K]`Ybg "

8Yf'XfUa Uh]gWXY'Gd]Y'j Yf'Ui Z

8]Y'DUfh]Y'gW]Yb'UbZÄb['j]W]Ui ZY]bYb'k Y]hYfYb'8Äa dZYf'ZØf'XYb
J Z@\]bUi gni 'Ui ZYb""B UW]Y]bYf'ghUf_Yb'YfghYb'<U'VnY]h'[Yf]YhYb
X]Y'C gb UVfØW_Yf'k]YXYf']bg'<]bhYfhfYZZYb""8cW]bUW]XYa
D'Uhmj Yfk Y]g'ZØf'I bhYf\UW]b[']b'XYf') \$"A]bi hY'i bX'XYa
UbgW]jY» YbXYb'9'Za YhYfž'XYf'Xi fW] ; bUUgY'gci j YfÄb

j Yfk UbXY`h`k i fXYž`bU\`a Yb`X]Y`8]b[Y`Y]bY`K YbXi b[``8]Y`VY]XYb
gd`hYb`HcfY`]b`XYf`B UW\gd]Y`nY]h`Xi fW\ ; bUUgY`gck]Y`Nk Ufhg
gcf[hYb`XUbb`Z0f`XYb`_0\`bYb`5VgW\`i gg`i bX`_UhUdi`h]YfhYb
C gbUVf0W`_Ui Z`X]Y`G]Y[YgghfU»Y`` ÆW`[`Ui VYž`gc`W\Y`Gd]Y`Y
[Yk]bbgh`Xi `bi f`\]Yf`]b`i bgYfYa `GhUX]cb žVYa Yf`hY`?cgW\]bUh
i bX`cVhY`X]Y`I bhYfgh0hni b[`XYf` : Ubgž`X]Y`XUg`HYUa `k À\fybX
XYg`[YgUa`hYb`Gd]Y`g`Ub[YZYi Yfh`\UhYb"

6YgcbXYfg`YfZFYi `]W\`k Uf`Ui W\`XYf`HfYZZYf`j cb`9f]_`9b[Y`\UfXhž
XYf`gY]bYb`J YfhfU[`j cf`XYf`DUfh]Y`j cfnY]h][`j Yf`Àb[Yfh`\UhhY``GY]b
9b[U[Ya Ybh`Z0f`XYb`J YfY]b`nY][h`g]W\`b]W\h`bi f`]b`gY]bYf
@Y]ghi b[`Ui Z`XYa `D`Uhnž`gcbXYfb`Ui W\`]b`gY]bYf`d cg]hj Yb
9]bghY``i b[.` ÆW`\UVY`[YgU[hž`k]f`[Yk]bbYb`ni gUa`a Yb`i bX
j Yf`]YfYb`ni gUa`a Yb ž`gc`XYf`Gh0fa Yf`bUW\`XYa`Gd]Y``
9b[Y`\UfXh[`Ui Vh`Ub`Y]bY`d cg]hj Y`9bhk]W`_i b[`Z0f`X]Y`XfY]
Di b`hYž`XYbb` XYf`?bchYb`]gh`Yhnh`Ub[gUa`i [Yd`Uhh`"

5i gV`]W`_Ui Z`X]Y`_ca`a`YbXY < YfUi gZcfXYfi b[

8]Y`C gbUVf0W`_Yf`Gd]Y`Yf`gW\Y]bYb`X]Y`6YXYi hi b[`X]YgYg`G]Y[Yg
ni `Yf`_YbbYbž`g]bX`UVYf`XYbbcW\`j cfg]W\h][`cdh]a`]gh]gW\`` ; bUUgY
a U\bhY`ni f`J cfg]W\h` 9g`k Uf`Y]b`GW\ f]h]b`X]Y`f]W\h][Y`F`]W\hi b[ž
UVYf`Yg`Vf]b[h`i bg`b]W\hž`k Ybb`k]f`Ua` `b`ÀW\ghYb`K`cW\YbYbXY
k]YXYf` : YXYfb`_UggYb" `8Yf` : c`_i g`a`i gg`bi b`XUfUi Z`]Y[Ybž`X]YgY
d cg]hj Y`8mbUa`_]`b`X]Y`b`ÀW\ghYb`Gd]Y`Y`ni`0VYfhfU[Ybž`i a` `XYb
YfghYb`GU]gcbg]Y[`U`g`K YbXYdi b`_h`ni` `bi hnYb" `8]Y`b`ÀW\ghY
< YfUi gZcfXYfi b[`_ca`a`h`VYfY]hg`a`]h`XYa` `8i Y``[Y[Yb`X]Y`I`&
XYg`6J 6ž`k c`XUg`HYUa`nY][Yb`XUfž`XUgg`XYf`G]Y[`_Y]b`Ni ZU``
k Uf"

9]b`k Y]hYfYf`k]W\h][Yf`Di b`_h`V`Y]Vh`X]Y` ; Ygi bX`Y]h`XYg`HYUa`g`
Gd]Y`Yf`H]a`c`6Y`Yfa`Ubb`a`i`gghY`XUg`Gd]Y`_Ui Z[fi bX`j`cb
F]ddYbgW\`a`YfnYb`j`cfnY]h][`j`Yf`UggYb" `GY]bY`HY]`bU\`a`Y`Ua
_ca`a`YbXYb`Gd]Y``]gh`bcW\`i`b`_Ufž`i`bX`X]Y`[YgUa`hY`A`UbbgW\`UZh
k]fX`X]Y`G]hi Uh]cb`[YbUi`]ja`5i [Y`VY`\U`hYb`a`0ggYb"

8]Y`a ca YbhUbY`Gh]a a i b[`]a `HYUa

⊕g[YgUa h`gh`X]Y`Gh]a a i b[`]a `HYUa `dcg]hj "Gd]Y`Yf`i bX`HfU]bYf
gdØfYbž`XUgg`g]W`Y]bY`5i ZVfi W`gh]a a i b[`YhUV`Yfh`U`h"
?cgW`]bUh`VYhcbh` Gc`Y]bYb`9]bgh]Y[`]bg`Di b`_hYb`UVYb`k`j f
VYb`Øh][h" `K `À\fybX`X]Y`@]U!K`Y]»Yb`]b`XYf`YfghYb`D\UgY`XYf
GU]gcb`ghfUi W`Y`hYbž`gc f[hYb`X]Y`XfY]`k`]W`h][Yb`Di b`_hY`bi b`ZØf
bYi Yb`9`Ub`"9g`V`Y]Vh`UVni k UfhYbž`cV`X]Y`A UbbgW`UZh`X]YgYb
A ca Ybh`bi hmYb`_Ubbž`i a`g]W`]b`XYf`HUVY`Y`k`Y]hYf`bUW`cVYb
ni ` _Àa dZYb"

8 Yf`K`Y[`ni a`YfghYb`GU]gcbg]Y[

8]Y`GU]gcb`&\$&` #&\$&(`\Uh`ZØf`XYb`J Z@`C gbUVfØW`_`c`d`f][
VY[cbbYb`"⊕`XYb`YfghYb`VY]XYb`Gd]Y`Yb`XYf`@][U`nY][hYb`X]Y`@]U!
K`Y]»Yb`Y]bY`gW`k UW`Y`@Y]ghi b[ž`X]Y`]b`nk`Y]`B]YXYf`U[Yb`c`b`Y
Y][YbYb`HcfUVgW`i gg`YbXYhY`"8]YgY`5i g[Ub[g`U[Y`ghY`hY`X]Y
A UbbgW`UZh`i bX`XUg`HfU]bYfhYUa`i a`l`k`Y`?cgW`]bUh`j`cf`Y]bY
Yf`YV`]W`Y`<YfUi gZcfXYfi b["`Nk`]gW`Yb`5i ZghY`i b[gdfcV`Ya`Yb
i bX`XYf`Gi W`Y`bUW`XYa`f]W`h][Yb`Gd]Y`f`m`h`a`i`g`k`Uf`Yg
YbhgW`Y]XYbXž`XUgg`XUg`HYUa`]a`YbhgW`Y]XYbXYb`A ca Ybh
ni gUa`a`YbZUbX"

8 Yf`YfghY`GU]gcbg]Y[`k`Uf`b]W`h`bi`f`k`]W`h][`ZØf`X]Y`HUVY`Y`ž
gcbXYfb`Ui W`ZØf`XUg`dgmW`c`c`[]gW`Y`K`c`\VYZ]bXYb`XYf`Gd]Y`Yfž
X]Y`bUW`XYb`Zfi`ghf]YfYbXYb`5i ZhU`hgd]Y`Yb`i`bhYf`8fi`W`_ghUbXYb`"
?cgW`]bUh`Yf`_`ÀfhY`bUW`XYa`Gd]Y`ž`XUg`HYUa`VYb`Øh][Y`X]YgYb
9fZc`[`Xf]b[YbXž`i a`bYi Yg`GY`Vghj YfhfUi Yb`ni`hUb`_Yb`i bX`g]W`
j`cb`XYb`UbZ`Ab[`]W`Yb`F`ØW`gW`_`À[Yb`ni`X]ghUb]YfYb"

8]Y`GhUh]gh]_`gdf]W`h`ZØf`XYb`J Z@

8]Y`YhnhYb`8 UhYb`nY][Ybž`XUgg`XYf`J Z@]b`XYf`j`Yf[Ub[YbYb
GU]gcb`Y]bY`GW`k`]Yf][_Y]h`\UhYž`Gd]Y`Y`]b`XYf`nk`Y]hYb`<U`VnY]h
ni `_cbhfc``]YfYbž`k`À\fybX`]b`X]YgYf`GU]gcb`j`cf`U`Ya`X]Y`@Y]ghi b[
]b`XYf`nk`Y]hYb`<U`VnY]h]j`YfVYggYfh`k`i`fXY`"⊕`XYf`DUfh]Y`[Y[Yb
l`bhYf`UW`]b[`Yfn]Y`hY`XYf`J Z@VY]XY`HcfY`]b`XYf`B`UW`gd]Y`nY]hž

k Ug`b]W h`bi f`ZØf`XYb`Ya`ch]cbU`Yb`<Ø\Ydi`b`h`XYg`Gd]Y`g`gcf[hž
gcbXYfb`Ui`W`ghUh]gh]gW`[YgY\Yb`XUfUi`Z`\]bXYi`hYhž`XUgg`X]Y
:]hbYgg`i`bX`?`cbX]h]cb`XYf`Gd]Y`Yf`[Ygh]Y[Yb`]gh"@Ui`h`Y]bYf
I`bhYfgi`W`i`b[`j`cb`][UhYUa`"XY`k`UfYb`X]Y`C`gbUVfØW`_Yf`]a
J`Yf[`Y]W`ni`f`Y`h`hYb`GU]gcb`gck`c`\`]b`XYf`@Ui`ZY]ghi`b[`U`g`Ui`W
]b`XYf`DfYgg]b[`ei`chY`[Ygh]Y[Yb`"

⊕`X]YgYf`GU]gcb`g]bX`X]Y`YfghYb`XfY]`Gd]Y`Y`Y]b`6Y]gd]Y`XUZØfž`k`]Y
`Y]W`h`X]Y`A`UbbgW`UZh`]b`_f]h]gW`Yb`A`ca`YbhYb`Ub`]fY`;`fYbnYb
ghc`»`Yb`_Ubb`"⊕`gVYgcbXYfY`X]Y`HUhgUW`Yž`XUgg`XYf`YfghY
Di`b`_h[Yk`]bb`Yfgh`]b`XYf`Xf]hhYb`DUfh]Y`[Y`Ub[ž`nY][h`X]Y
B`c`h`k`Y`b`X][`_Y]h`ZØf`_c`b`h]bi`]Yf`]W`Y`J`YfVYggYfi`b[Yb`"?`cgW]bUh
VYhc`b`hYž`XUgg`X]Y`A`UbbgW`UZh`]b`XYf`@U[Y`gY]b`a`i`ggž`g]W`Ui`W`]b
_f]h]gW`Yb`D\UgYb`ni`ghUV`]g]YfYbž`i`a`b`UW`U`h][Yb`9fZc`[`ni
Yfn]Y`Yb`"

: Ub`!`I`b`hYfghØ`hni`b[`U`g`Y`b`hgW`Y]X`Y`b`X`Y`f`
: U`_`h`c`f`

9]b`nYb`hfU`Yf`5gdY`_hž`XYf`VY]`XYf`5bU`mgY`XYg`Øb[ghYb`9fZc`[g
b]W`h`j`YfbUW`Ågg][h`k`YfXYb`gc`hYž`]gh`X]Y`F`c`Y`XYf`:`Ub`g`"8]Y
5b`Åb[Yf`XYg`J`Z@`C`gbUVfØW`_`UVYb`g]W`]b`XYf`j`Yf[Ub[YbYb
GU]gcb`U`g`Y]bY`hfYi`Y`i`bX`a`ch]j`]YfYbXY`?`fUZh`Yfk`]YgYb`"⊕
;`Ygd`f`ÅW`Yb`a`]h`XYb`Gd]Y`Yfb`nY][hY`g]W`XYi`h]W`ž`k`]Y`gY`f`X]Y
I`bhYfghØ`hni`b[`XYf`Ni`gW`Ui`Yf`j`cb`6YXYi`hi`b[`]gh`"8]Y`Ya`ch]cbU`Y
5`ha`cgd`ÅfY`]a`GhUX]cb`k`Uf`Y]b`GW`ØggY`ZU`_h`c`f`ž`XYf`XYb`Gd]Y`Yfb
`U`Z`]b`Y`b`hgW`Y]X`Y`b`X`Y`b`A`ca`Y`bh`Y`b`Y]b`Yb`ni`g`Å`h`]W`Yb`GW`i`V`Ub
A`ch]j`Uh]cb`ni`Yf`U`h`Yb`"

⊕`XYf`DfYggY`_c`b`ZYfYbn`b`UW`X`Y`a`Gd]Y`X`U`b`_`h`Y`?`cgW]bUh`X`Y`b`
: Ub`g`gd`Y`n]Y`ZØf`]fY`HfYi`Y`i`b`X`]f`9b[U[Ya`Ybhž`X]Y`XUg`HYUa
Ui`W`]b`g`W`k`]Yf][Yb`NY]hYb`b]W`h`]a`Gh]W`[Y`UggYb`UVYb`"8Yf
J`YfY]b`d`Ub`hž`X]Y`gY`J`YfV]b`Xi`b[`ni`XYb`5b`Åb[Yfb`k`Y]hYf
Ui`gni`V`Ui`Yb`ž`i`a`Y]bY`bcW`gh`Åf`_YfY`I`bhYfghØ`hni`b[`]b`XYf
`Ui`ZYb`XYb`GU]gcb`ni`[Yk`Å`f`Y]ghYb`"

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