

9!6]_Y!8]YVghU\`']b`K`cbXfYV.`Dc`]nY] gi W\h`NYi [Yb`ZØf`<]bk Y]gY

⊖`K`cbXfYV`k`i`fXY`Y]b`DYXY`YWXyf`A`Uf`_Y`7i`VY`Ui`g`Y]bYf`
;`UfU[`Y`[`Yghc`\`Yb`"Dc`]nY]`gi`W\h`NYi`[`Yb`"<]bk`Y]gY`V]hhY`Ub`
\$`-`*`'`%#+\$`%\$%`!`\$`"

5a`j`Yf[`Ub[`YbYb`K`cW\YbYbXY`k`i`fXY`]b`K`cbXfYV`Y]b`
\`cW\k`Yfh[`Yg`9!6]_Y`[`Yghc`\`Yb`ž`k`Ug`b]W\h`bi`f`XYb`6Yg]hnYfž`
gcbXYfb`X]Y`[`YgUa`hY`B`UW\V`UfgW\UZh]b`5`Ufa`VYfY]hgW\UZh`
j`YfgYmh`\`Uh":`U\ffUXX]YVgh\`Y`g]bX`]b`j`]Y`Yb`Gh\XhYb`Y]b`
k`UW\gYbXYg`DfcV`Ya`ž`i`bX`X]YgYf`J`cfZU``Yf]bbYfh`XUfUb`ž`k`]Y`
k`]W\h[`Yg`]ghž`[`i`h`Ui`ZY][`YbY`9][`YbhØa`Yf`ni`UW\hYb`"

8Yf`8]YVghU\`YfY][`bYhY`g]W\`nk`]gW\Yb`GUa`ghU[`ž`XYa`'`%+`"
5i`[`i`ghž`i`a`'`%-`!`\`f`i`bX`GcbbhU[`ž`XYa`'`%`,`"5i`[`i`ghž`i`a`'`%)`!`\`f`ž`U`g`
Y]b`V]g`Ub[`i`bVY`_Ub`bhYf`H\hYf`Y]bY;`UfU[`Y`Ua`'`?`UdY``Ybk`Y[`
Ui`ZVfUW`"8]Y;`UfU[`Y`k`Uf`b]W\`h`j`YfgW\`cggYb`ž`k`Ug`
a`Ò[`]W\Yfk`Y]gY`X]Y`J`Yfgi`W\`i`b[`]Yf`Y]W\`hYfh`\`Uhž`XUg`DYXY`YWXyf`
A`Uf`_Y`7i`VY]a`K`Yfhj`cb`Yhk`U`&`-\$`\$`9i`fc`ni`Yb`hk`YbXYb`"⊖`Y]bYf`
NY]hž`]b`XYf;`U\ff\`XYf`i`bX`]bgVYgcbXYfY`9!6]_Yg`]a`a`Yf`VY`]YVhYf`
k`YfXYb`ž`ghY``h`X]YgYf`J`cfZU``Y]bYb`_`UfYb`5i`Zfi`Z`ni`f`K`UW\gUa`_Y]h`
XUf`"

8YhU]`g`ni`a`'9!6]_Y`i`bX`XYb`9fa`]hh`i`b[`Yb`

8Ug`[`Yghc`\`YbY`9!6]_Y`]gh`Y]b`DYXY`YW\XUg;`YgW\k`]bX][`_Y]hYb`
j`cb`V]g`ni`&)`_a`#`YffY]W\h`"8]YgY`5fhj`cb;`U\ffUX`YfZFY`h`g]W\`
VYgcbXYfg`VY]`DYbX`Yfb`[`fc»`Yf`6Y`]YVh\Y]hž`XU`Yg`Y]bYb`gW\`bY``Yb`
i`bX`i`a`k`Y`hžFY`i`bX`]W\Yb`K`Y[`]V]YhYhž`i`a`g]W\`]b`XYf`GhUXh`
Zcfhni`VYk`Y[`Yb`"Dc`]nY]\`Ui`dh`ca`a`]ggUf`GhYZUb`<`U[`Y`\`Uh`X]Y`
6Yj`Ò`_Yfi`b[`]Ui`Z[`Yfi`ZYb`ž`<]bk`Y]gY`ni`XYa`J`cfZU``ni`[`YVYb`ž`

XUa]h'XYf'HÄhYf'gWÅbY''[YZUggh'k YfXYb'_Ubb"

8]Y'Dc`nY]]bgdY_h]cb'H]fgWÅYbFYi h\`]ghi bhYf'XYf'HY`YZcbbi a a Yf
\$- *' %#+ \$%\$! \$'YffY]WÅVUf'i bX'V]hhYhi a 'l bhYfghØhni b["`>XYfž'XYf
gUWÅX]Yb`]WÅY'<]bk Y]gY'[YVYb'_Ubbž'k]fX'[YVYhYbž'g]WÅ'ni
a Y`XYb'i bX'gca]h'ni f'5i Z_`Äfi b['XYg': U`Yg'VY]ni hfU[Yb"'8Yf
8]YVghU\`Y]bYg'gc'k Yfhj c`Yb': U\ffUXg'k]f_h'g]WÅ'b]WÅ'h'bi f'Ui Z
XYb'VYhfcZZYbYb'6Yg]hnYf'Ui gž'gcbXYfb'_Ubb'Ui WÅ'Yb[ghY']b'XYf
; Ya Y]bXY`Yfj cffi ZYb"

8]Y'6YXYi hi b['j cb'G]WÅ Yf\Y]h'ZØf'9!6]_Yg

J cf'X]YgYa ' <]bhYf[fi bX']gh'Yg'k]WÅh][ž'g]WÅ'a]h'XYa 'H\Ya U
G]WÅYf\Y]hj cb'9!6]_Yg'bÄ\Yf'Ui gY]bUbXYfni gYhnYb"'5b[Yg]WÅhg
XYf'\c\Yb'5bgWÅUZI b[g_cghYb'gc`hYb'9!6]_Y!6Yg]hnYf'XUfUi Z
VYXUWÅ'h'gY]bž'\fY': U\fnYi [Y'cdh]a U`ni 'g]WÅYfb"'8 Ug'VYXYi hYhž
XUgg[i hY'GWÅ`ØggYfž']XYU'Yfk Y]gY'a Y\fyfY'G]WÅYf\Y]hggmghYa Yž
gck]Y'XUg'DUf_Yb']b[YgWÅØhnhYb'6YfY]WÅYb'j cb'[fc» Yf
6YXYi hi b['g]bX"'5i WÅ'<Ui g!'i bX'; UfU[YbhØfYb'gc`hYb'ghYhg
UV[Yf]Y[Y'h'gY]bž'i a '8]YVYb'Y]bYb'ni gÄh']WÅYb'Ni [Ub['ni
YfgWÅk YfYb"

9!6]_Yg'g]bX'Y]b'ZUbhUgh]gWÅYg': cfhVYk Y[i b[ga]hhY`ž'YXcWÅ
a i gg'X]Y'G]WÅYf\Y]h'b]WÅ'hj YfbUWÅ`Ägg][h'k YfXYb"'a a Yf'a Y\ f
A YbgWÅYb'YbhgWÅY]XYb'g]WÅ'ZØf'9!6]_Ygž'k Ug'XUni 'ZØ\fhž'XUgg
Ui WÅ'X]Y'8]YVghÄ\`Y']b'X]YgYf'? UhY[cf]Y'ni bY\`a Yb"'8]Y'Dc`nY]
\Uh'gca]h'X]Y'5i Z[UVYž'b]WÅ'h'bi f'Ui ZX]Y'5i Z_`Äfi b['j cb
8]YVghÄ\`Yb'ni 'UWÅhYbž'gcbXYfb'Ui WÅ'dfÄj Ybh]j Y'A U» bU\`a Yb'ni
ZØfXYfb"

8]Y'9!6]_Y!7ca a i b]hmigY`Vgh'_Ubb'Ui » YfXYa 'Y]bYb'6Y]hfU[
'Y]ghYbž']bXYa 'g]Y']b'gcn]U`Yb'A YX]Yb' ðZcfa Uh]cbYb'ØVYf'X]Y
G]WÅYf\Y]h'i bX'X]Y' bYi YghYb'HYWÅbc'c[]Yb'ni f
8]YVghU\`g]WÅYfi b['hY]'h'6]'Xi b['i bX'GYbg]V']g]Yfi b['g]bX
\YfVY]'X]Y'GWÅ`ØggY`ž'i a 'XYa 'DfcV`Ya 'Ybh[Y[Ybni k]f_Yb"

8 Yf'8]YVghU\`]b'K cbXfYV'a U['ja 'A ca Ybh'Y]b'Y]bnY`ZU`gY]bž
XcWÅ'Yf'ghY\h'ZØf'Y]b['fØ» YfYg'D\Äbca Yb"'8]Y'DfÄj U`Ybn'j cb

: U\ffUXX]YVghÅ\`Yb`nY][hžXUgg`gck c\`XYf`; YgYhn[YVYf`U`g`Ui W
X]Y`9]bnY`dYfgcbYb`U_h]j`k YfXYb`a ØggYbž`i a`X]YgY`5fhj`cb
?f]a]bU`]hÅh`ni`VY_Åa dZYb`"8]Y`?ca V]bUh]cb`Ui g
hYW`bc`c[]gW`Ya` : cfhgW`f]hh`i bX`[Ya`Y]bgW`UZh`]W`Ya
9b[U[Ya`Ybh`_ÖbbhY`XYf`GW`ØggY`gY]bž`i a`X]Y`G]W`Yf\Y]h`a
GhfU» Ybj Yf_Y`f`g][b]Z]_Ubh`ni`Yf\Ö\Yb`i bX`X]Y`FUXZU`fYf`ni
gW`ØhnYb`"

≠`XYf`Nk]gW`YbnY]h`V`Y]Vh`X]Y`<cZZbi b[žXUgg`XYf`HÅhYf`gW`bY`
[YZUggh`k]fX`i bX`XUg`[Yghc\`YbY`9!6]_Y`ni`gY]bYa`fYW`ha`Å»][Yb
6Yg]hnYf`ni`fØW`_Y`fh`"X`XYf`<]bk Y]g`_Ubb`Yb`hgW`Y]XYbX`gY]bž`i a
XYf`?f]a]bU`]hÅh`j`cb` : U\ffUXX]YVYb`9]b\U`h`ni` [YV]YhYb`i bX`XUg
G]W`Yf\Y]hg[YZØ`"b`XYf`; Ya`Y]bgW`UZh`k]YXYf\Yfni`ghY`Yb`"

8]Y`Ni`bU`a`Y`j`cb` : U\ffUXX]YVghÅ\`Yb`

≠`XYb`Y`mhYb`d\`fYb`]gh`X]Y`NU\`XYf` : U\ffUXX]YVghÅ\`Y`]b
8Yi`hgW`_UbX`_cbh]bi`]Yf`]W`[Ygh]Y[Yb`"@Ui`h`XYf`Dc`]nY`]W`Yb
?f]a]bU`ghUh]gh]_`fD?GŁ`k`i`fXYb`]a`d\`f`&\$`%`fi`bX`"```\$`\$`\$`\$`
 : U\ffÅXYf`U`g`[Yghc\`Yb`[Ya`Y`XYhž`k`Ug`Y]bYb`5bgh]Y[`j`cb`a`Y`f
U`g`%\$`i`]a`j`Yf[`Y]W`ni`a`j`cf\`U`f`XUfghY`h`"8]YgY`NU\`Yb
j`YfXYi`h]W`Ybž`XUgg` : U\ffUXX]YVghÅ\`Y`Y]b`Yfbghni`bY`a`YbXYg
DfcV`Ya`XUfghY`Ybž`XUg`b]W`h`bi`f`gh`ÅXh]gW`Y` ; YV]YhY`VYhf]Zž
gcbXYfb`Ui`W`"ÅbX`]W`YfY`FY[]cbYbž`k]Y`ni`a`6Y]gd]Y`K`cbXfYV`"

8]Y`[Ygh]Y[YbY`B`UW`ZfU[Y`b`UW` : U\ffÅXYfbž`]bgVYgcbXYfY`b`UW`9!
6]_Yg`i`bX`DYXY`YWgž`\Uh`?f]a]bY`Y`Ub[Ync[Yb`"8]YgY` : U\ffÅXYf
\UVYb`c`Zh`Y]bYb`\Ö\YfYb`K`Yf`hž`k`Ug`g]Y`ni`Y]bYa`VYj`cfni`[hYb
N]Y`a`UW`h`9]b`DYXY`YWXyf`A`Uf`_Y`7i`VYž`k`]Y`XUg`[Yghc\`YbY`]b
K`cbXfYVž`_Ubb`Y]W`h`a`Y`fYfY`hUi`gYbX`9i`fc`_cghYbž`k`Ug`Yg`ZØf
8]YVY`i`a`gc`Uh`fU_h]j`Yf`a`UW`h`9g]gh`XU`Yf`i`a`gc`k`]W`h][Yfž`XUgg
FUXZU`fYf`\`fY` : U\ffÅXYf`g]W`Yf`UVgW`]Y» Yb`i`bX`[Y[YVYbYbZU`g
ni`gÅh`]W`Y`G]W`Yf\Y]hgj`cf`_Y`fi`b[Yb`hfYZZYb`"

DfÅj`Yb]h]cbga`U»`bU`a`Yb`[Y[Yb
 : U\ffUXX]YVghU\`

I a : U\ffUXX]YVghÀ\`Yb`Ybh[Y[Ybni k]f_Ybž[]Vh`Yg'a Y\fyfY
A U»bU\ a Ybž`X]Y`6Yg]hnYf`Yf[fY]ZYb`_ÒbbYb"Ni`XYb`YZZY_hj]ghYb
[Y\ÒfYb.

- G]WXYfYg`5VghY`Yb. : U\ffÀXYf`gc`hYb`]b`[i h
VY`Yi W`hYhYbž`VY`YVhYb`6YfY]WXYb`UV[YghY`h`k YfXYbž`X]Y
a Ò[`]WXYfk Y]gY`j cb`G]WXYf\Y]hg_Ua YfUg`ØVYfk UW`h
k YfXYb"
- J Yfk YbXi b[`j cb`ei U`]hUh]j `c W`k Yfh][Yb
GW`ÒggYfb.`9]b`[i hYg`GW`cgg`gW`fYW`h`dchYbn]Y`Y
8]YVY`UV"i !GW`ÒggYf`i bX`c W`k Yfh][Y`6Ø[Y`gW`ÒggYf
[Y`hYb`U`g`VYgcbXYfg`g]WXYf"
- : U\ffUXfY[]ghf]Yfi b[.`8]Y`F Y[]ghf]Yfi b[`XYg` : U\ffUXg
VY]`Dc`nY]X]YbghghY`Yb`cXYf`C b`]bY!D`UhhZcfa Yb`_Ubb
\Y`ZYbž[Yghc`\`YbY`9!6]_Yg`Y]W`hYf`]XYbh]Z]n]YfVUf`ni
a UW`Yb"
- 8]Y`f]W`h][Y`J Yfg]WXYfi b[.`9]bY` : U\ffUXj Yfg]WXYfi b[
_Ubb]a : U`Y`Y]bYg`8]YVghU\`g`\Y`ZYbž`XYb`Z]bUbn]Y`Yb
J Yf`i gh`UVni a]XYfb"

8]Y`Dc`nY]`Ya dZY`\`hini XYa ž`ØVYf`gc]U`Y`A YX]Yb`i bX
B UW`VUfgW`UZh]`ZYb`ϕZcfa Uh]cbYb`ni`hY]Ybž`i a`XUg
6Yk`i gghgY]b`ZØf`XUg`DfcV`Ya`ni`gW`ÀfZYb`i bX`ni`g`Àhn`]WXY`<]ZY
ni`f`X`Ybh]Z]n]Yfi b[`[Yghc`\`YbYf` : U\ffÀXYf`ni`Yf\U`hYb"

8]Y`F c`Y`XYf`Dc`nY]`i bX`XYf` ; Ya Y]bgW`UZh

8]Y`Òfh]WXYb`6Y\ÒfXYb`\UVYb`Y]bY`k]W`h][Y`F c`Y`VY]`XYf
6Y_Àa dZ] b[`j cb` : U\ffUXX]YVghÀ\`Yb" `Dc`nY]X]fY_h]cbYb`gYhnYb
ni bY\ a YbX`Ui Z`Df`Àj Ybh]cbga U»bU\ a Yb`i bX`ÒZZYbh`]WXY
5i Z_`Àfi b[ž`i a`X]Y`6Yj Ò`_Yfi b[`gYbg]V`]g]YfYb" `Dfc[fUa`a Y`ni`f
: ÒfXYfi b[`j cb` : U\ffUXfY[]ghf]Yfi b[Yb`i bX`G]WXYf\Y]ghfU]b]b[g
g]bX`bi`f`Y]b][Y`6Y]gd]Y`Y"

; Ya Y]bgW`UZhYbž`k]Y`VY]gd]Y`k Y]gY`]b`K`cbXfYVž`_ÒbbYb
YVYbZU`g`Xi`fW`B UW`VUfgW`UZh]b]h]Uh]j Yb`ni`f`Df`Àj Ybh]cb
VY]hfU[Yb" `ϕXYa`5bk`c`bYf`ni`gUa`a YbUfVY]hYb`i bX
ϕZcfa Uh]cbYb`ØVYf`j YfX`W`h][Y`5_h]j]h`hYb`Ui`ghUi`gW`Ybž`

_ÖbbYb'g]Y`Y]b'g]WXYfYfYg`l a ZY`X'gWUZZYb"8]Y'Dc`]nY]ZcfXYfh'ni
X]YgYf'Ni gUa a YbUfVY]h'Ui Zi bX`Yfa i h][h'6Øf[Yfž'dfcU_h]j`ni
\UbXY`bž'i a `X]Y`G]WXYf\Y]hj cb` : U\ffÅXYfb`]b`]\fYb
K c\b[YV]YhYb`ni`j YfVYggYfb"Gc`WXY`A U» bU\ a Yb`_ÖbbYb
\Y`ZYbž`XUg`F]g]_c`j cb`8]YVghÅ\`Yb`Yf\YV`]W`ni`j Yff]b[Yfbž
]bXYa`g]Y`dchYbn]Y``Y`HÅhYf`UVgWfYW_Yb`i bX`X]Y`5i Z_`Àfi b[gfUHY
VY]`8]YVghÅ\`Yb`Yf\Ö\Yb"

8YhU]`g

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