9]bVfi W\ `]b`B Yi ghUXh. ; UfhYb [YfÀhY `Ui g < ØhhY `[Yghc \ `Yb

I bVY_UbbhY`HÀhYf`VfUWYb`]b`B Yi ghUXh#K ""]b`Y]b
; UfhYb [fi bXghØW_`Y]b`i bX`ghU\`Yb`; UfhYb [YfÀhY""<]bk Y]gY
Ub`X]Y`Dc`]nY]°

B Yi ghUXh#K Y]bghfU» Y` `9]b`VYi bfi \][ YbXYf`JcfZU``YfY][bYhY`g]W\
]b`XYf`GhUXh`B Yi ghUXh`Ub`XYf`K Y]bghfU» Yž`U`g`i bVY\_UbbhY`HÀhYf`
]b`Y]b`; UfhYb [fi bXghØW_`Y]bVfUWYb""8Yf`9]bVfi W\ `ZUbX`nk]gWYb
XYa`&%"`5i [i gh&\$&(`i a`%`.\$\$`l` \f`i bX`XYa`&&"`5i [i gh&\$&(
i a`%`.\$`l` \f`ghUhh"

8]Y`9]bVfYWYf`j YfgW\UZZhYb`g]W\`Ni [Ub [ž]bXYa`g]Y` [Yk`U`hgUa
Y]bY`?YhhY`Ui ZVfUWYb""8Ug; UfhYb [fi bXghØW_``Y [h]b`XYf`A Ufh]b!
@ h\Yf!GhfU» Yž`i bX`XYf`JcfZU``k]fZi: fU [Yb`ØVYf`X]Y`G]WYf\Y]h
j cb`; fi bXghØW\_`Yb`]b`XYf`l a [ YVi b [ `Ui Z`JYfk`i bXYfb`a U [ ž`XUgg
XYf`9]bVfi W\ `]b`Y]bYf`j Yfa`Y]bh]W\`g]WYfYb`K c\b [Y [YbX
 [YgW\U\ž`X]Y`bcfa`U`Yfk`Y]gY`j cb`Y]bYa`fi \][Yb`i bX`Zf]YX`]WYb
@VYb`bggh]` [YdfÀ [h]gh"

8]Y `[ Yghc \ `YbYb ; UfhYb [YfÀhY

5i`g`Y]bYf`i bj YfgW\`cggYbYb`<ØhhY`Yb`k YbXYhYb`X]Y`HÀhYf`
a`Y`fYfY; UfhYb [YfÀhY""`b`XYf; YgUa`h\Y]h`gi`a`a]Yfh`g]W\`XYf`
G\UXYb`Ui Z`Yhk`U`- &\$`9i`fcž`k`Ug`ZØf`X]Y`VYhfc`ZYbYb
; UfhYbbi`hnYf`b]W\`hi`bYf\YV`]W\`]gh"8]Y`9b`hk`YbXi`b [`j`cb
; UfhYb [YfÀhYbž`X]Y`c`Zi`a` ]h`d`Yfg`Øb`]WYf`5fVY]h`i`bX`DZY [Y
Uggcn]]Yfh`k`YfXYbž`gh`Øfh`X]Y` [Yk`c\b`hY`F`ci`h]bY`i`bX`_`Ubb`ni`XYa
Y]bY`Ya`ch]cb`U`Y`6Y`Ughi`b [ `XUfghY``Yb""8]Y`HUh`nY][`h`Y]bY
VYgc`f [ b]gYffY [ YbXY`HYbXYbnž; UfhYbUb`U [ Yb`i`bX`À`b`]WY
5fYU`Y`ni`N]Y`gWY]VYb`ZØf`_f]a`]bY``Y`5`_h]j`]hÀhYb`ni`a`UWYb"

8]Y'Dc`nY]BYi ghUXh#K "\Uh'Ui Z[Y\Öfhž<]bk Y]gY'j cb'NYi [Yb
Ubni bY\ a Yb"K Yf']b'XYf'BA\Y'XYg'; UfhYb[fi bXghØW_g
j YfXÅW_h][Y'5_hj]]hÅhYb'VYcVUW_hYh'\Uhž'k]fX'[YVYhYbž'g]W
i a [Y\YbX'ni 'a Y'XYb"9]bY'VfY]hY'NYi [YbVUg]g_ÖbbhY'XUni
VY]hfU[Ybž'X]Y'HÅhYf'ni ']XYb]h]Zn]YfYb'i bX'X]Y'G]WYf\Y]h]b'XYf
BUW VUfgW UZh'k]YXYf\Yfni ghY''Yb"

F YU_h]cbYb'XYf'; Ya Y]bgW UZh

CVk c\''XYf'J cfZU''X]Y'5bk c\ bYf']b'5i ZFY[i b['j YfgYhnh'\Uhž']gh
X]Y'; Ya Y]bgW UZh'a ch]j]Yfhž'ni gUa a Ybni UfVY]hYbž'i a 'gc'WY
J cfZÅ''Y]b'Ni _i bZh'ni 'j Yf\]bXYfb''; UfhYbbi hnYfb'k]fX
Ya dZc\Ybž'\fY'; fi bXghØW_Y'VYggYf'UVni g]WYfb'i bX
j YfXÅW_h][Y'5_hj]]hÅhYb'gcZcfh'ni 'a Y'XYb"8]Y'Dc`nY]'\Uh'VYfY]hg
XUfØVYf'bUW [YXUW_hž'j YfghÅ_f_hDUhfci]''Yb']b'XYf'I a [YVi b[
Y]bni ZØ\ fYbž'i a 'Y]b'; YZØ\''j cb'G]WYf\Y]h'ni 'gW UZZYb"

8]Y'GYbg]V']g]Yfi b['XYf'; Ya Y]bgW UZh'ZØf'G]WYf\Y]hgh\Ya Yb']gh
j cb'YbhgWY]XYbXYf'6YXYi hi b["J]Y''Y]W'h'k]fX'X]YgYf'J cfZU''U`g
K YW_fi Z'ZØf'U''Y'X]YbYbž'X]Y']b'Å\b']WYb'BUW VUfgW UZhYb
k c\ bYb'i bX'g]W']b'Y]bYf'gWY]bVUf'g]WYfYb'I a [YVi b['k]Y
BYi ghUXh'k Å\bYb''Ni gUa a Yb'_ÖbbYb'6Yk c\ bYf'XUZØf'gcf[Ybž
XUgg'g]W'gc'WY'9]bVfØWY'b]W'h'k]YXYf\c'Yb"

8]Y'GhØfi b['XYf'[Yk c\ bhYb'G]WYf\Y]h]gh'b]W'h'bi f'Y]bY
a UhYf]Y''Y': fU[Y''9g'nY][h'Ui W'ž'XUgg'9]bVfØWY']b'df]j UhY
: fY]fÅi a Y'k]Y'; ÅfhYb'ni bY\ a Yb'_ÖbbhYb"8]Yg'YfZcfXYfh'Y]b
I a XYb_Yb'ØVYf'X]Y'5fhi bX'K Y]gYž'k]Y'k]f'i bgYfY'df]j UhYb
6YfY]WY'gW'ØhnYb'i bX'g]WYfb'gc''hYbž'i a 'X]Y'@VYbgei U']hÅh
i bX'i bgYf'G]WYf\Y]hg[YZØ\'']b'XYf'; Ya Y]bgW UZh
Ui ZFYW'hni Yf\U'hYb"

@VYb']b'I bg]WYf\Y]h

8]Y'I bg]WYf\Y]h'Xi fW'Y]bYb'9]bVfi W'\Uh'5i gk]f_i b[Yb'Ui ZXUg
U''hÅ[']WY'@VYb'XYf'A YbgWYb"K Ybb'g]W'X]Y'6Yk c\ bYf'b]W'h
g]WYf'ZØ\Yb'_ÖbbYbž'ZØ\fh'X]Yg'a Ø[']WYfk Y]gY'ni '5b[gh'i bX
A]gghfUi Yb']bbYf\U'V'XYf'BUW VUfgW UZh"8]Y': c'[Yb'gc'WYf

HUhYb`g]bX`cZh`k Y]hfY]W`YbX`i bX`k YfXYb`]b`XYf`F Y[ Y`Yfgh
`Ub[ Zf]gh][`XYi h]W`"9]b`j YfgW`k i bXYbYf`F UgYba `À\Yf`a U[`nk Uf
a UhYf]Y`YfgYhnh`k YfXYbž`XcW`XYf`J Yf`i gh`XYg
G]W`Yf\Y]hg[ YZØ`g`]gh`cZh`j ]Y`gW`k ]Yf][ Yf`ni `VY`YVYb"J cf
X]YgYa <`]bhYf[ fi bX`gc`hY`YXYf`9]bVfi W`U`g`Yfbgh`UZhY
9f]bbYfi b[`Ub`i bgYfY`J Yf`Yhn`]W`_Y]h`VYhfUW`hY`h`k YfXYb"

8Yf`J cfZU`]b`BYi ghUXh`_ØbbhY`XUni `VY]hfU[Ybž`XUg`H\Ya U
G]W`Yf\Y]h]b`XYb` : c\_i g`ni `fØW`_Yb`i bX`X]Y` ; Ya Y]bgW`UZh
Ui Zni ZcfXYfbž`dfcU\_h]j Y`K Y[Y`ni `Z]bXYbž`i a `]\fY`I a [ YVi b[ `ni
gW`ØhnYb"CV`Xi fW`VYggYfY`G]W`Yf\Y]hg] cf`_Y`fi b[ Yb`cXYf`Xi fW`
Y]b`Yf\Ø`hYg`6Yk i gghgY]b`ZØf`X]Y`6YXYi hi b[`j`cb
BUW`VUfgW`UZhga`cb]hcf]b[ `Yg`[ ]Vh`nU`\fY]W`Y`5bg`ÅhnYž`X]Y
Yfk`c[ Yb`k YfXYb`\_ØbbYbž`i a `X]Y`GhfU»Yb`k ]YXYf`g]W`YfYf`ni
a UW`Yb"

<]bhYf[fi bX]bZcfa Uh]cbYb`ni
9]bVfi W`XY`_]_hYb

9]bVfi W`gX]YVgh`À\Y`ghY`Yb`]b`j]Y`Yb`F Y[]cbYb`8Yi hgW`UbXg`Y]b
VYXYi hYbXYg`DfcV`Ya `XUf"8]Y`?f]a]bU`]h`Åh]b`X]YgYa `6YfY]W`
_Ubb`ghUf`_j Uf]]YfYbž`UV`Åb[] [`j`cb`j YfgW`]YXYbYb` : U\_hcfYb`k]Y
XYf`[ Yc[ fUZ]gW`Yb`@U[ Yž`XYf`gc`n]U`Yb`Ghfi `\_hi`f`i bX`XYa
U`[ Ya Y]bYb`G]W`Yf\Y]hg[ YZØ`XYf`6Yj Ø`_Yfi b[" `ϕ`fi `]\[Yb
K`c`b[YV]YhYbž`k ]Y`VY]gd]Y`gk`Y]gY`]b`BYi ghUXh`Ub`XYf
K`Y]bghfU»Yž`g]bX`9]bVfØW`Y`nk Uf`k`Yb][ Yf`\`Ài`Z][ž`YXcW`_ØbbYb
g]Y`XYbbcW`j Yf\YfYbXY`5i`gk]f`\_i b[ Yb`Ui`Z`X]Y`6YhfcZYbYb
\UVYb"

8]Y`8i b`_Y`n]ZYf`j`cb`9]bVfØW`Yb`]gh`cZha`U`g`\`cW`ž`XU`j]Y`Y` : `À`Y
b]W`h`ni`f`5bnY][Y`[ YVfUW`h`k`YfXYb" `@Ui`h`XYf`Dc`]nY`]W`Yb
?f]a]bU`ghUh]gh]\_`fD?GŁ`&\$&&`k`i`fXYb`Vi`bXYgk`Y]h`Yhk`U` , "\$\$\$
9]bVfØW`Y`fY[]ghf]Yfh"8]YgY`NU`\`g][ bU`]g]Yfh`b]W`h`bi`f`Y]bYb
X]fY`\_hYb`Z]bUbn]Y`Yb`J`Yf`i`ghž`gcbXYfb`Ui`W`Y]bY`Ya`ch]cbU`Y
6Y`Ughi`b[ž`XU`j]Y`Y`C`dZYf`\`f`G]W`Yf\Y]hg[ YZØ`j`Yf`]YfYb"8]Y
5i`Z`_`Àfi`b[`X]YgYf`GhfUZhUhYb`]gh`Y]bY`XYf`nYbhfU`Yb
< YfUi`gZcfXYfi`b[Yb`ZØf`X]Y`Dc`]nY]"`ϕ]h]Uh]j`Yb`ni`f`Df`Åj`Yb]h]cbž`k`]Y
Ui`Za`Yf`\_gUa`Y`BUW`VUfgW`UZhYb`i`bX`G]W`Yf\Y]hgVYfUhi`b[ž`g]bX

i bYf`Ägg]Wł ži a `X]Y`5bnU\`XYf`9]bVfØWłY`ni`fYXi`n]YfYb"

GhUh]gh]_Yb`i`bX`HfYbXg

9]bVfØWłY`]b`df]j`UhYg`9][`Yb`hi`a` `UVYb`]b`XYb`Y`h`hYb`f`U`fYb`
i`bhYfgWł]YX`]WłY`HfYbXg`[`YnY][`h`"8]Y`D?G`VYf]Wł`hYh]`cb`Y]bYa`
FØW`\_`[`Ub`[`j`cb`9]bVfi`WłX]YVgh`Ä`Yb`]a` `U`f`&`\$`%`]a` `J`Yf`[`Y]Wł`ni`
XYb`J`cf`U`fYb`"8]Y`;`fØbXY`Y`fZØf`g]bX`j`]Y`Z`Ä`h][` `J`YfVYggYfhY`
G]WłYf`Y]hga`U»`bU`a`Yb`]b`<`Ui`g`U`hYb`ž`XYf`9]bgUhn`a`cXYfbYf`
HYWłbc`c`[`]Yb`k`]Y`,`VYfk`UWł`i`b`[`g`\_`Ua`YfUg`i`bX`5`Ufa`Ub`U`[`Yb`
gck`]Y`Y]bY`Yf`Ä`hY`Df`Äj`Ybh]cbgUfVY]h`XYf`Dc`]nY]"`

9]bY`i`a`ZfU`[`Y`XYg`?`f]a`]bc`c`[`]gWłYb`:`c`fgWł`i`b`[`g]bgh]hi`hg`
B]YXYfgUWł`gYb`Yf`[`UVž`XUgg`ØVYf`\*`\$i` `XYf`6Y`ZfU`[`hYb`Ub`[`YVYbž`
G]WłYf`Y]hgj`cf`\_`Y`fi`b`[`Yb`Ub`]`Y`fYa` `K`c`b`cfh`[`Yhfc`ZZYb`ni` `UVYb`"
8]Yg`gd]Y`[`Y`h`Y]b`k`UWł`gYb`XYg`6Yk`i`gghgY]b`ZØf`X]Y`B`chk`YbX][`_`Y]h`
j`cb`9]bVfi`Wł`gWł`i`hn`k`]XYf`"8Yb`bcWł`V`Y]Vh`XYf`;`fc»`hY]`XYf`
6Yj`Ö`_`Yfi`b`[`VYgc`f`[`h`ØVYf`9]bVfi`Wł`f]g]\_`Yb`ž`k`Ug`g]Wł`]b`Y]bYf`
Yf`Ä`hYb`B`UWł`ZfU`[`Y`b`UWł`G]WłYf`Y]hg`Ögi`b`[`Yb`b]YXYfgWł`Ä`[`h`

8]YgY`9]bg]Wł`hYb`Ub`X`GhUh]gh]\_Yb`_`ÖbbYb`XUVY]`Y`ZYbž`X]Y`
6YXYb`\_`Yb`XYf`6Yj`Ö`_`Yfi`b`[`ni` `UXfYgg]YfYb`i`bX`X]Y`
FYggci`fWł`bni`hY]i`b`[`ni`f`6Y`\_`Äa`dZ]b`[`j`cb`9]bVfØWłYb`Y`ZZY`_`hj`Yf`
ni`[`YghU`hYb`"`b`BYi`ghUXh`Ub`XYf`K`Y]bghfU»`Y`]gh`Yg`k`]Wł`h][`ž`X]Y`
;`Ya`Y]bgWł`UZh`XUfØVYf`ni`]bZcfa`]YfYbž`k`]Y`g]Y`g]Wł`gY`Vgh`i`bX`
]`fY`B`UWł`VUfb`gWł`ØhnYb`\_`Ubbž`i`a` `Y]b`g]WłYfYg`i`a`ZY`X`ZØf`U`Y`ni`
gWł`UZZYb`"

8YhU]`g

6Ygi`Wł`Yb`G]Y`i`bg`Ui`Z.`X]Y!`bUWł`f]Wł`hYb`"bYh`