

9]bVfi W\]b`A UfVUW\ .`GW\ a i W_X]YVghU\`]b`K c\b\Ui g

ϕ`A UfVUW\`Ua`BYW_Uf`VfUW\Yb`i bVY_UbbhY`]b`Y]b
K c\b\Ui g`Y]b`i bX`ghU\`Yb`GW\ a i W_`]a`K Yfhj cb`a Y\fyfYb
HUi gYbX`9i fc`"<]bk Y]gY`YfVYhYb`

ϕ`XYf`BUW\h`ni a`8]YbghU[ž`XYb`&+`"5i [i gh`&\$&(ž`Yf`YVhY`X]Y
GhUXh`A UfVUW\`Ua`BYW_Uf`Y]bYb`YfgW\fyW_YbXYb`J cfZU`ž`XYf
j`]Y`Y`5bk c\bYf`U`Ufa`]Yfh`\Uh`Nk`]gW\Yb`,`"\$`\$`I` \f`Ua`A`cbhU[
i bX`\$\$`(`) `I` \f`Ua`8]YbghU[`VfUW\Yb`i bVY_UbbhY`H`hYf
[Yk`U`hgUa`]b`Y]b`K c\b\Ui g`]a`GhUXhY`]"`<`Öfb`Y`Y]b`"Gc`W\Y
J YfVfYW\Yb`k`YfZYb`:`fU[Yb`ni`f`G]W\Yf\Y]h`]b`i bgYfYf
BUW\VUfgW\UZh`Ui Zi bX`VYi bfi` \[Yb`X]Y`6Øf[Yfž`X]Y`XYb`GW\i`hn
]\fyf`Y][YbYb`j`]Yf`K`AbXY`U`g`gY`Vghj`Yfgh`AbX`]W\`UbgY\Yb`"

8]Y`9]bVfYW\Yf`\UhhYb`ZfY]Y`6U\bž`XU`g]Yž`k`]Y`Yg`Ui`gg]Y\`hž
i bVYa`Yf`_h`V`]YVYb`"BUW\XYa`g]Y`g]W\`Ni`[Ub[`ni`XYa`K c\b\Ui g
j`YfgW\UZh`\UhhYbž`Xi`fW\k`Ø`\hYb`g]Y`U`Y`F`Äi`a`Y`Ui`Z`XYf`Gi`W\Y
bUW\`K`YfhgUW\Yb`"@Ui`h`YfghYb`ϕ`Zcfa`Uh]cbYb`YfVYi`hYhYb`g]Y
GW\ a i W_`]a`K`Yfhj`cb`a`Y\fyfYb`HUi`gYbX`9i`fc`"8]Y`[YbUi`Y
<`Ö\Y`XYg`GUW\gW\UXYbg`"Äggh`g]W\`V]g`Ub[`b]W\h`UVgW\ÄhnYbž`k`Ug
X]Y`G]hi`Uh]cb`bcW\`Vf]gUbhYf`a`UW\h`"

9fa]hh`i b[Yb`XYf`? f]a]bU`dc`nY]

8]Y`?f]a]bU`dc`nY]`XYg`Dc`nY]dfÄg]X]i`a`g`@`Xk`][gVi`f[`\Uh
i`bj`YfnØ[`]W\`X]Y`9fa]hh`i b[Yb`Ui`Z[Ybca`a`Yb`"G]Y`gi`W\h`bUW\
NYi`[Ybž`X]Y`a`Ö[`]W\Yfk`Y]gY`<]bk`Y]gY`ni`XYa`9]bVfi`W\`[YVYb
_ÖbbYb`"8]Y`Dc`nY]`V]hhYh`XUfi`a`ž`g]W\`i`bhYf`XYf`HY`YZcbbi`a`a`Yf
\$,`\$\$`%\$&\$&) `cXYf`dYf`9!A`U]`Ub
\]bk`Y]gY`_f]dc`"i`Xk`][gVi`f[`4`dc`nY]"Vk`"XY`ni`a`Y`XYb`"X`XYf`

<]bk Y]g' _ÖbbhY`YbhgWXY]XYbX`gY]bž'i a`X]Y`HÄhYf`ni`ZUggYb`i bX
k Y]hYfY`9]bVfØWXY`ni`j Yf\]bXYfb"

9g]gh`b]W`h`bi`f`XYf`a`U`hYf]Y`Y`J`Yf`i`ghž`XYf`X]Y`6Yhfc`ZYbYb
VY`UghYhž`gcbXYfb`Ui`W`XUg`;`YZØ\`XYf`J`Yf`Y`hn`]W`_Y]h`i`bX
I`bg]WXYf\Y]hž`XUg`a`]hY]bYa`9]bVfi`W`Y]b\Yf[`Y`h`":`Øf`j`]Y`Y
A`YbgWXYb`ghY`h`]f`Ni` \Ui`gY`Y]bYb`F`ØW`ni` [`gc`fh`XUfž`i`bX`gc`WXY
J`cfZÄ`Y`ghØfYb`XUg`[`Yk`c`b`hY`G]WXYf\Y]hg[`YZØ\`Yf\YV`]W`"

8]Y`6YXYi`hi`b[`j`c`b`G]WXYf\Y]h`]a`5`hU[

9]bVfi`W`X]YVghÄ`Y`g]bX`nk`Uf`b]W`h`bYi`ž`XcW`]\`fY`<`Äi`Z[`_Y]h
a`UW`h`XYi`h]W`ž`k`]Y`k`]W`h][`Y`g]ghž`dfÄj`Ybh]j`Y`A`U»`bU`a`Yb`ni
Yf[`fY]ZYb`" `ϕ`XYb`Y`h`hYb`ϑ`U`fYb`U`h`XUg`H`Ya`U`9]bVfi`W`ggW`i`hn
]a`a`Yf`a`Y`f`Ub`6YXYi`hi`b[`j`Yk`cbbYb`" `J`]Y`Y`A`YbgWXYb
]bj`Ygh]YfYb`]b`G]WXYf\Y]hghYW`b]_ž`k`]Y`5`Ufa`Ub`U[`Yb`i`bX
G]WXYf\Y]hghØfYbž`i`a`X]Y`K`U`f`g`WXY]b`]W`_Y]h`Y]bYg`9]bVfi`W`g`ni
a`]b]a`]YfYb`" `9i`dYfhYb`Ya`dZY`\`Yb`Ui`W`ž`B`UW`V`UfgW`U`ZhYb`ni
V]`XYbž`i`a`[`Ya`Y]bgUa`Ui`Zj`YfXÄW`h][`Y`g`J`Yf\`U`hYb`ni`UW`hYb`"

8]YgYf`J`cfZU`]]gh`Y]b`k`Y]hYfYf`<]bk`Y]g`XUfUi`Zž`XUgg`?`f]a`]bU`]hÄh
YXY`;`Ya`Y]bgW`U`Zh`VYhfY`ZYb`_Ubb`" `ϕ`NY]hYbž`]b`XYbYb`a`Y`f
A`YbgWXYb`ni`<`Ui`gY`g]bXž`i`a`ni`UfVY]hYb`cXYf`ni`Y`fYbYbž
YfgWXY]bYb`X]Y`J`YfVfUi`W`Yf`VYgcbXYfg`j`Yf`Y`h`hž`k`Yb`b`]f
K`c`b`f`Ui`a`N]Y`gc`WXYf`GhfU`Zh`U`hYb`k`]fX`" `K`Ä`fYbX`X]Y`Dc`nY]
j`Yf`gi`W`hž`X]Y`HÄhYf`ni`Y`fa`]hY`bž`V`Y]V`h`UV`ni`k`U`fhYbž`k`]Y`X]Y
6Øf[`YfgW`U`Zh`Ui`Z`gc`WXY`J`cfZÄ`Y`fYU[`]Y`fh`i`bX`c`V`g]W`XUg
G]WXYf\Y]hgVYk`i`gghgY]b`]b`XYf`6Yj`Ø`_Yfi`b[`k`Y]hYf`j`YfghÄf`h`"

9]bVfi`W`]b`K`c`b`Äi`gYf`]gh`b]W`h`bi`f`Y]b`DfcV`Ya`ZØf`X]Y
X]fY`_hYb`C`dZYf`/Yg`\`Uh`Ui`W`5i`gk`]f`_i`b[`Yb`Ui`ZX]Y`[`YgUa`hY
B`UW`V`UfgW`U`Zh`i`bX`XUg`U`[`Ya`Y]bY`G]WXYf\Y]hg[`YZØ\`]b`XYf
F`Y[`]cb`" `?`f]a`]bU`]hÄh`]gh`Y]b`YfbghYg`H`Ya`Už`XUg`gc`k`c`\`X]Y
]bX]j`]Xi`Y`Yb`G]WXYf\Y]hgj`cf`_Y`fi`b[`Yb`U`g`Ui`W`X]Y
K`U`f`b`Y`a`i`b[`XYg`G`W`i`h`nYg`]b`i`bgYfYf`I`a`[`YVi`b[`VYhf]Zh`"

æ`:`U`Y`j`c`b`A`UfVUW`Ua`BYW`Uf`nY][`h`X]YgY`G]hi`Uh]cbž`k`]Y
k`]W`h][`Y`g]ghž`Ui`Za`Yf`_gUa`ni`V`Y]VYb`i`bX`g]W`X`[`Y[`YbgY]h][`ni`"

i bhYfghØhnYb"K Ybb'a Ub'XYb_hžXUg'Y][YbY'Ni \Ui gY'gY]'g]WYfž
gc`hY'a Ub'g]W'XUFUb'Yf]bbYfbž'XUgg'DfÅj Ybh]cb'XYf'GW'ØggY`
]gh"G]WYf\Y]h'ghY]b'_c`Y_hj] Yg'6Ya Ø\Ybž'VY]'XYa 'YXYf
9]bnY'bY'Y]bYb'6Y]hfU['Y]ghYb'_Ubbž'i a 'X]Y'; Ya Y]bgWUZh'ni
gWØhnYb'i bX'X]Y'Y][YbY'K c\bi a [YVi b['g]WYfYf'ni 'a UWYb"

9]bVfi Wg_f]a]bU`]hÅh]b'8Yi hgW'UbX

9]bVfØWY'j]b'K c\b\Åi gYf'ghY`Yb'Y]b'\Åi Z][Yg'DfcV'Ya 'j]b'j]Y'Yb
GhÅXhYb'8Yi hgW'UbXg'XUF"@Ui h'XYf'Dc`]nY`]WYb
?f]a]bU`ghU]gh]_fD?GŁ'k i fXYb'ja 'x\&f'&\$&&'XYi hgW'UbXk Y]h
ØVYf'*"\$\$\$\$'9]bVfØWY'fY[]ghf]Yfhž'k Ug'Y]bYb'5bghY]['Y[YbØVYf
XYb'Jcf'U\YfYb'XUfghY`h'"8]Y'a Y]ghYb'X]YgYf'8Y']_hY'ZUbXYb'j]b
ghÅXh]gWYb'fY[]cbYb'ghUhhž'k cVY]'X]Y'HÅhYf'cZi[Yn]Y'h'bUW
\cWk Yfh][Yb'K Yfh[Y[YbghÅbXYb'gi WYb"'#b'A UfVUW'Ua 'BYW_Uf
gd]Y[Y'h'g]W'X]YgYg'D\Åbca Yb'k]XYfž'k Ug'X]Y'fY'Yj Ubn'XYf
Øb[ghYb'JcfZÅ`Y'i bhYfghfY]W'h"

8]Y'G]WYf\Y]h'j]b'K c\b[YV]YhYb'j]ghY]b'nYbhfU'Yg'H\Ya Uži bX
j]Y'Y'5bk c\bYf'gYhnYb'Ui Z'DfÅj Ybh]cbga U»bU\ a Yb'"8Uni
[Y\ØfYb'VY]gd]Y`gk Y]gY'U'Ufa [Yg]WYfYh'Y'ØfYb'i bX': YbghYfž
?Ua YfUØVYfk UW'i b[ggmgHYa Y'gck]Y'BUWVUfgWUZh'gk UWYbž
X]Y'[Ya Y]bgUa 'ZØf'a Y\f'G]WYf\Y]h'gcf[Yb'gc`Yb'"8YbbcW
V'Y]Vh'X]Y'5i Z_Åfi b[gei chY'VY]'9]bVfØWYb'fY'Uh]j 'b]YXf][ž'k Ug
X]Y'6YhfcZYbYb'cZi'a UW'h'cg'ni fØW_Åggh"

: U_hc fYbž'X]Y'9]bVfØWY'VY[Øbgh][Yb

9]bVfØWY'k YfXYb'cZi'Xi fW'Y]bY'J]Y'nU\`j cb'gcn]U'Ybž
k]fhgWUZh]WYb'i bX'fY[]cbU'Yb': U_hc fYb'VYY]bZi'ggh"9]b
k YgYbh]WYf'5gdY_h'gh'X]Y'k]fhgWUZh]WY'@U[Yž'X]Y'j]b'a UbWYb
fY[]cbYb'ni 'Y]bYf'Ni bU\ a Y'j cb'9][Ybhi a gXY']_hYb'ZØ\Yb'_Ubb"
Ghi X]Yb'nY][Ybž'XUgg'j]b'k]fhgWUZh]W'gW'k ÅWYfYb'; Y[YbXYb
X]Y'?f]a]bU`]hÅhgfUhY'hYbXYbn]Y`'\Ø\Yf'gh'"8UfØVYf'\]bUi'g'gd]Y'h
Ui W'XYf'gcn]U'Y'Ni gUa a Yb\U'h'XYf'BUWVUfgWUZh'Y]bY'f'c`Y/
[i hij YfbYhnhY'; Ya Y]bgWUZhYb'VYf]W'hYb'\Åi Z]['j cb'k Yb][Yf
9]bVfØWYbž'XU'Y]bY'Yf\Ø\hY'K UW'gUa _Y]h'\YffgW'h"

8 Ug J Yf\U`hYb`XYf`HÅhYf`]gh`YVYbZU`g`Y]b`VYXYi hYbXYf` : U_hcf"
J]Y`Y`9]bVfYWX Yf`VYcVUWX hYb`[Yn]Y`hX]Y` ; Yk c`b`Y]hYb`XYf`
6Yk c`bYfž`i a`XYb`cdh]a U`Yb`NY]hdi b_h`ZØf`XYb`9]bVfi WX
Ui gni k Å`Yb`"8U`Yf`g]bX`6Yk c`bYf`Ub[Y`U`hYbž`]\fY`hÅ[`]WX Yb
Fci h]bYb`ni`j Uf]]YfYb`i bX`i b[Yk c`hY`5i Za Yf_gUa`_Y]hni
j Yfa Y]XYb"

GhUh]gh]gWX Y`9b hk]W_`i b[Yb`]a`6YfY]WX
9]bVfi WX g_f]a]bU`]hÅh

ſ\f	F Y[]ghf]YfhY`9]bVfØWX Y
&\$&\$, + "\$\$\$
&\$&%	+&"\$\$\$\$
&\$&&	* \$"\$\$\$\$

8]Y`cVYbghY`YbXYb`NU`Yb`Ui g`XYf`D? G`j YfXYi h`]WX Yb`Y]bYb
HfYbXž`XUgg`hfc`hn`XYf`GW`k Ub_i b[Yb`X]Y`9]bVfi WX gfUHY`ØVYf`X]Y
ſ\fY`hYbXYbn]Y`"UVb]a a h`8]Y`9]bZØ\fi b[`j cb`A U» bU`a Yb`ni f
VYggYfYb`G]WX Yf`Y]h]b`K c`b[YV]YhYb`gck]Y`X]Y`[Ygh]Y[YbY
GYbg]V`]hÅh`XYf`6Øf[Yf`[Y[YbØVYf`X]YgYa`H`Ya U`gWX Y]bYb
9fZc`[Y`ni`nY][Yb`"8Yb`bcWX`V`Y]Vh`Yg`Y]bY`< YfUi gZcfXYfi b[ž`X]Y
6Yj`Ò`_Yfi b[`k Y]hYf`b`ni`gYbg]V`]g]YfYb`i bX`k]f_gUa`Y`@Øgi b[Yb
ni`Z]bXYb"

8YhU]`g

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