J Yfgi W\ hYf`9]bVfi W\ `]b`6cfghY`!
< c\YbfUXYb.`Dc`nY]`gi W\ h`NYi [Yb

I bVY_UbbhY`j Yfgi W\ hYb`Ua`i&("\$, "&\$&( `]b`6cfghY`!
< c\YbfUXYbžY]b`9]bZJa `]Yb\Ui g`Ui Zni VfYWX Yb`"NYi [Yb
[Ygi W\ h`

&*"\$, "&\$&(` `%) .&

Dc`nY]X]fY\_h]cb`6UX`GY[YVYf[

⊖`XYf`VYgW\ Ui `]W\ Yb`; Ya Y]bXY`6cfghY`!< c\YbfUXYbž`[YbUi Yf
[YgU[h]b`XYf`E i]W_VcfbYf`GhfU»Yž`_Ua`Yg`Ua`GUa ghU[ ž`XYb`&("5i [ i gh&\$&( žni `Y]bYa`VYa Yf\_Ybgk YfhYb`J cfZU`""⊖`Y]bYa
9]bZJa `]Yb\Ui g`j Yfgi W\ hYb`i bVY\_UbbhY`HÄhYf`[ Yk U`hgUa ž`g]W\ Ni hf]hh`ni `j YfgW\ UZZYb`"8]YgYf`J cfZU`"k]fZh`Y]b`@W\ h`Ui ZX]Y G]W\ Yf\Y]hg`U[Y`]b`XYf`FY[ ]cb`i bX`X]Y`F]g]_Ybž`X]Y 9]bZJa `]Yb\Äi gYf`VYhfYZZYb"

Ni f`HUhnY]hž`nk]gW\ Yb`%+.\$ \$`I \f`i bX`&.`.` \$`I \fž`j Yfgi W\ hYb`X]Y 9]bVfYWX Yf`cZZYbVUfž`a ]hhY`g`Y]bYg`i bVY_UbbhYb`K Yf\_nYi [ g`X]Y 9]b[Ub[ghØf`XYg`<Ui gYg`ni `ÖZZbYb`"K Ug`[YbUi `g]Y`d`UbhYbž`V`Y]Vh i b`_Ufž`XYbb`Ui g`V]g`Ub[`i bVY\_UbbhYb`; fØbXYb`"Y»Yb`g]Y`j cb ]\fYa`J cf\UVYb`UV`i bX`YbhZYfbhYb`g]W\ `c\bY`6Yi hY" ; `ØW`_]W\ Yfk Y]gY`k i fXY`X]Y`<Ui gVYk c\bYf]b`b]W\ h`j Yf`Yhnhž`YXcW`j Yfi fgUW\ h`XYf`YbhghUbXYbY`GUW\ gW\ UXYb`j cb`Yhk U`) \$\$ 9i fc`Ub`XYf`HØf`Xi fW\ Ui g`Yf\YV`]W\ Y`Gcf[ Yb`i bX I bUbbY`a `]W\ _Y]hYb"

8 YhU]`g`ni f`HUh

8]Y`9fa ]hh`i b[Yb`ni f`GUW\ Y`VYZ]bXYb`g]W\ `XYfnY]h`j b`XYb`< ÄbXYb

XYf'f]a]bU`dc`nY]`D]bbYVYf[ žX]Y`U_h]j `bUW`<]bk Y]gYb`gi W`h`
NYi [YbžX]Y`k`À\fybX`XYg`[YbUbbhYb`NY]hfUi`a`g`5i`ZZ`][`_Y]hYb
VYa`Yf`h`\UVYb`cXYf`bZcfa`Uh]cbYb`ni`XYb`HÀhYfb`\UVYbž
k`YfXYb`[YVYhYbž]g]W`ni`a`Y`XYb`"8]Y`Dc`nY]`b]a`a`h`<]bk Y]gY
i`bhYf`XYf`HY`YZcbbi`a`a`Yf`\$`(%\$%&\$\$&!\$`cXYf`j`]U`9!A`U]`Ub
G;`("D]bbYVYf[ "?"`4`dc`nY]"`UbXg\`"XY`Ybh[Y[Yb"

9g]gh`b]W`h`bi`f`XUg`Yf`\Ò\hY`G]W`Yf\Y]hgVYXØfZb]g`XYf`6Yk`c`bYfž
XUg`Xi`fW`Y]bYb`gc`W`Yb`J`cfZU``[Yk`YW\_h`k`]fX`"9]b`j`Yfgi`W`hYf
9]bVfi`W`_Ubb`Ui`W`Y]b`U``[Ya`Y]bYg;`YZØ\`XYf`I`bg]W`Yf\Y]h]b
XYf`B`UW`VUfgW`UZh`\Yfj`cffi`ZYb";`Ya`Y]bXYj`YfUbghU`hi`b[Yb`cXYf
B`UW`VUfgW`UZhghUa`a`h]gW`Y`\_ØbbhYb`\]Yf`Y]bY`[YY][`bYhY
D`UhhZcfa`V]YhYbž`i`a`G]W`Yf\Y]hgUb`Y[ Yb`ni`h\Ya`Uh]g]YfYb`i`bX
B`UW`VUfb`ni`gYb]V]`g]YfYb"

8]Y`F`c``Y`j`cb`;`Y`\Øfh`i`bX`Ni`gUa`a`YbUfVY]h

K`Ug]a`a`Yf`k`]YXYf`Ui`ZZ`hž]gh`X]Y`6YXYi`hi`b[`XYf;`Ya`Y]bgW`UZh
]a`?`Ua`dZ[ Y[ Yb`?`f]a`]bU`]hÀh`"8]Y`Dc`nY]`UddY``Yfh[YfUXY]b
gc`W`Yb;`À``Yb`Ub`X]Y`6Yj`Ø`\_Yfi`b[ž`k`UW`gUa`ni`gY]b`"9]b
k`UW`gUa`Yg`5i`[ Y`Ui`Z`X]Y`B`UW`VUfgW`UZh`\_Ubb`X`Uni`VY]hfU[Ybž
d`chYbn]Y``Y`?`f]a`]bU`]hÀh`ni`j`Yf\]bXYfb`"6Y]gd]Y`gk`Y]gY`_ØbbYb
B`UW`VUfgW`UZh`gk`UW`Yb`cXYf`Y]bZUW`Y;`Ygdf`À`W`Y`i`bhYfY]bUbXYf
Y]b`[ Ygh`À`f`_hYg`G]W`Yf\Y]hg[YZØ\`YfnYi`[Yb"

8]Y`6Yf]W`hYfghU`hi`b[`ØVYf`9]bVfØW`Y`i`bX`j`Yfgi`W`hY`9]bVfØW`Y
]gh]b`XYb`Y`hnhYb`U\fyb`nk`Uf`ni`fØW`[ Y[ Ub[ Ybž`Y`XcW`nY][Yb
j`YfY]bnY`hY`J`cfZ`À`Y`k`]Y`X]YgYfž`XUgg`X]Y;`YZU`f`k`Y]hYf\]b
VYghY`h";`YfUXY]b`À`bX`]W`Yb`F`Y[]cbYbž`k`c`j`]Y`Y`A`YbgW`Yb`]b
9]bZUa`j]Yb`\`Ài`gYfb`YVYbž`_ØbbhY`XUg`6Yk`i`gghgY]b`ZØf`X]Y
G]W`Yf\Y]h`bcW`k`Y]hYf`[ YgW`À`f`Zh`k`YfXYb"

Ni`gUa`a`YbZUggYbX`À`ggh`g]W`gU[ Ybž`XUgg`XUg;`YgW`Y`Yb`]b
6`cfghY`!`<`c`Yb`fUXYb`b]W`h`bi`f`Y]bYb`9]bV`]W`_]b`XUg
G]W`Yf\Y]hg]g]c`[]Vhž`gc`bXYfb`Ui`W`nY][ hž`k`]Y`k`]W`h][`Yg`]ghž
XUgg`X]Y;`Ya`Y]bgW`UZh`U\_h]j`ØVYf`G]W`Yf\Y]hgh\Ya`Yb`gdf]W`h`i`bX
ni`gUa`a`YbUfVY]hYh`"8i`fW`5i`Z`_`Àfi`b[`i`bX`Y]bYb`5i`ghUi`gW
nk`]gW`Yb`Dc`nY]`i`bX`6Øf[ Yfb`_ØbbYb`j`]Y`Y`F`]g]\_Yb`j`Yfa`]bXYfh

k YfXYb"

F ØW_ZfU[Yb`V]hhY`Ub.

Dc`nY]X]fY\_h]cb`6UX`GY[ YVYf[ ` `DfYggYghY`Y` `8 cfZghf`%\*`
%, &` +`6UX`GY[YVYf[

>bg`NY]X`Yf

HY`YZcb.`\$()) %!, , (!&\$&&

< UbXm`\$%) %!%%+%+(%*

9!A U]`. `dfYggYghY`Y"VUXgY[ YVYf[ 4 dc`nY]"`UbXg\`XY

C f][]bU`!7cbhYbhj`cb.`Dc`nY]X]fY_h]cb`6UX`GY[YVYf[ž`ØVYfa`]hhY`h`
Xi`fW`bYk`g`U_hi`Y`

9]b`j`Yfgi`W`hYf`9]bVfi`W`ghY`h`b]W`h`bi`f`Y]bYb`a`UhYf]Y`Yb`J`Yf`i`gh`
XUfž`gcbXYfb`k`]fZh`Ui`W`VYXYi`hYbXY`:`fU[ Yb`ni`f`G]W`Yf`Y]h]b`
K`c`b[YV]YhYb`Ui`Z`8]Y`?`f]a`]bU`ghU]gh]\_`ZØf`8Yi`hgW`UbX`nY][[hž`
XUgg`9]bVfØW`Y`i`bX`j`Yfgi`W`hY`9]bVfØW`Y`Y]b`fY`Yj`UbhYg`DfcV`Ya`
XUfghY`Yb`"@Ui`h`XYf`Dc`nY]`]W`Yb`?`f]a` ]bU`ghU]gh]_`&\$&&`[UV`Yg`
]a``Ÿ\`f`&\$&&`]bg[ YgUa`h)`\$",` '\$`K`c`b`i`b[ gY]bVfØW`Y`ž`k`Ug`Y]bYb`
F ØW_[Ub[`]a` `J`Yf[`Y]W`ni`XYb`J`cf`U`fYb`XUfghY`h`8Yb`bc`W`
V`Y]Vh`XUg`G]W`Yf`Y]hg[ YZØ`>`j`]Y`Yf`6Øf[Yf]bbYb`i`bX`6Øf[ Yf`c`Zh`
VYY]bhf`À`W`h][[ hž`]bgVYgcbXYfY`bUW`J`cfZ`À`Yb`k` ]Y`XYa` `]b`6cfghY`!
<c`Yb`fUXYb"

8]Y`6Y`\`ØfXYb`fYU[]YfYb`Ui`Z`gc`W`Y`J`cfZ`À`Y`>`Ài`Z][`a`]h`
Df`Àj`Ybh]cbga`U»`bU`a`Yb`"8]Y`Dc`nY]`V]YhYh`6YfUhi`b[Yb`Ubž`i`a`
6Øf[Yf`i`bX`6Øf[ Yf]bbYb`ØVYf`G]W`Yf`Y]hgj`cf`\_`Y`fi`b[Yb`k`]Y`
5`Ufa`Ub`U[ Yb`ž`G]W`Yf`Y]hgZY`bghYf`i`bX`B`UW`VUfgW`UZh`gk`UW`Yb`ni`
]bZc`fa`]YfYb`"8]YgY`df`Àj`Ybh]Yb`A`U»`bU`a`Yb`_`Öb`bhYb`X`Uni`
VY]hfU[Yb`ž`X]Y`<`Ài`Z][`_`Y]h]j`cb`9]bVfØW`Yb`k`Y]hYf`ni`fYXi`n]YfYb`
i`bX`XUg`G]W`Yf`Y]hg[ YZØ`>`]b`XYb`VYhf`c`ZY`bYb`i` ;`Ya`Y]bXYb`ni`
gh`Àf`_`Yb"

F YU_h]cbYb`XYf`5bk c\bYf`i bX`XYf`

; Ya Y]bXY

8]Y`5bk c\bYf`i]b`6cfghY`!<c\YbfUXYb`\UVYb`Ui Z`XYb`j Yfgi W`hYb`
9]bVfi W`VYgcf[ h`fYU[]Yfh`9g`k]fX`Yfk UfhYh`XUgg`g]W`X]Y`
8]g_i gg]cb`ØVYf`G]W`Yf\Y]hga U»bU\`a Yb`]b`XYf`; Ya Y]bXY`
]bhYbg]j]Yfh`J YfUbg]h`i b[Yb`i bX`HfYZZYb`XYf`; Ya Y]bgW`UZh`
fØW`Yb`\`Ài Z][ ]b`XYb`J cfXYf[ fi bX`ž`i a`ØVYf`c`U`Y`
G]W`Yf\Y]hgVY`Ub[Y`ni`gdFYW`Yb`i bX`[ Ya Y]bgUa Y`GhfUHY[]Yb`ni`
Ybhk]W`Y`b`ž`X]Y`8 Ug`G]W`Yf\Y]hgVYk`i gghgY]b`gh`f`\_Yb`"@c`U`Y`
-b]h]Uh]j Yb`ni`f`; fØbXi b[ ]j cb`B UW`VUfgW`UZh`gk UW`Yb`b`Y\`a Yb`
a Y]gh`ni`ž`i bX`6Øf[Yf]bbYb`i bX`6Øf[Yf`g]bX`c`Zh`a`ch]j ]Yfh`ž`g]W`
gh`f`_Yf`ni`j YfbYmYb`"

8]Y`; Ya Y]bXY`_Ubb`ni`g`Àh`]W`G]W`Yf\Y]hgd`fc`Y`\_hY`ZØfXYfb`ž`X]Y`
XUfUi Z`UVn]Y`Yb`ž`X]Y`-b`ZfUghfi`\_hi`f`ni`j YfVYggYfb`i bX`a`Y`f`@]W`h`
]b`Xi b`_Yb`6YfY]W`Yb`ni`g`W`UZZYb`"Gc`W`Y`A U»bU\`a Yb`Yf\`Ø`Yb`
b]W`h`bi`f`X]Y`G]W`Yf\Y]h`ž`gcbXYfb`Ui W`X]Y`@YVYbgei`U`]h`h`i`a`
K`c`b`i`a`Z`X`"9g`k]fX`c`Zh`ZYgh[ YghY`h`ž`XUgg`]b`[i`h`VY`Yi`W`hYhYb`
i bX`g]W`YfYb`K`c`b[ Y[ YbXYb`k`Yb][ Yf`GhfUZhUhYb`j YfØVh`k`YfXYb`"

I bhYfghØhnYbXY`F Yggci fW`b

: Øf`6Yhfc`ZZYbY`j cb`9]bVfØW`Yb`cXYf`j Yfgi W`hYb`9]bVfØW`Yb`
ghY\Yb`j YfgW`]YXYbY`i bhYfghØhni b[ gUb[ YVchY`ni`f`J YfZØ[i b["
8]Y`8Yi hgW`Y`; YgY`g`W`UZh`ZØf`Df`Aj Ybh]cb`i bX`-bhYfj Ybh]cb`
fB; D-`V]YhYh`Dfc[fUa`a`Y`ni`f`HfUi`a`UVYk`À`h][ i b[ `ZØf`CdZYf`j`cb`
9]bVfi W`gX]YVgh`À`Yb`Ub`ž`i a`XYb`6Yhfc`ZZYbYb`ni`Y`ZYb`ž`XYb`
dgmW`c`c[]gW`Yb`GhfYgg`ni`VYk`À`h][Yb`"Ni`XYa`ghY`h`X]Y`Dc`nY`
c`Zh`-Zcfa`Uh]cbga`UhYf]U`ni`f`J YfZØ[ i b[ ž`i a`X]Y`6Øf[Yf`ØVYf`X]Y`
VYghYb`A U»bU\`a Yb`ni`f`9]bVfi W`gd`f`Aj Ybh]cb`ni`]b`Zcfa`]YfYb`"

Ni`g`Àh`]W`_ØbbYb`5bk c\bYf`X]Y`j YfgW`]YXYbYb`hYW`b]gW`Yb`
<]Zga`]hhY`]b`6YhfUW`h`n]Y\Yb`ž`X]Y`Ui Z`XYa`A`Uf`_h`Ub[ YVchYb`
k`YfXYb`ž`k`]Y`VY]gd]Y`gk`Y]gY`ga`Ufh!<ca`Y!GmghYa`Y`ž`X]Y`G]W`Yf\Y]h`
i bX`,`VYfk`UW`i b[`V]YhYb`"C`f[ Ub]gUh]cbYb`k`]Y`X]Y`
J`YfVfUi`W`YfnYbhfU`Y`V]YhYb`i bUV`À`b[][Y`6YfUhi`b[`ni`

K c\bi b[gg]WXYf\Y]hi bX!gWxi m'Ubž'i a 'XYb'6Øf[Yf]bbYb'i bX
6Øf[Yfb'ni '\Y`ZYbž']bZcfa]YfhY'9bhgWXY]Xi b[Yb'ni 'hfYZZYb"

⊕g[YgUa h'nY][h'XYf'U_hi Y`Y'J cfZU`ž'k]Y'k]Wxh]['Yg']ghž'XUgg
; Ya Y]bgWxUZhYb'ni gUa a YbUfVY]hYbž'i a
G]WXYf\Y]hg\YfUi gZcfXYfi b[Yb'Ubni gdfYWXYb'i bX'dfcU_h]j Y
A U» bU\ a Yb'ni 'Yf[fY]ZYbž'i a 'XUg'F]g]_c'j cb'9]bVfØWXYb'ni
a]b]a]YfYb"

8YhU]`g

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