

; `UXVUWX g'8YZYbg]j Y'i bhYf'8fi W_. '? Ua dZ
i a 'D`Uhn`ja 'A]hhY`ZY`X`XYf`@[U

6cfi gg]U`A ÒbWX Yb[`UXVUWX `Ya dZ`Ab[h'6UmYf`\$('@Yj Yf_i gYb
]b`XYf`6i bXYg`][U"; `UXVUWX `Àa dZhi a `Di b_hYž`k `À\fybX
@Yj Yf_i gYb`i b[YgWX `U[Yb`V`Y]Vh"

8]Y`_ca a YbXY`6Y[Y[bi b[`nk]gWX Yb`6cfi gg]U`A ÒbWX Yb[`UXVUWX
i bX`6UmYf`\$('@Yj Yf_i gYb`k YW`h`c`Y`9fk Ufhi b[Ybž
]bgVYgcbXYfY`bUWX`XYb`V]g\Yf][Yb`@Y]ghi b[Yb`VY]XYf`HYUa g`]b
XYf`YhhYb`GU]gcb`"K `À\fybX; `UXVUWX`a]h`Y]bYa
Ybhh`Ài gWX YbXYb`%("`D`Uhn`i bX`bi f" (`Di b_hYb`UVgWX`cggž
Xca]b]YfhY`@Yj Yf_i gYb`X]Y`@[U`i bX`_fÒbhY`g]WX`a]h`- \$`Di b_hYb
i bX`Y]bYf`a U_Y`c`gYb`6]`Ubn`j cb" (`Gd]Y`Yb`U`g`A Y]ghYf"

8]Y`A `Ab[Y`]b`XYf`5Vk Y`f`j cb`6cfi gg]U`A ÒbWX Yb[`UXVUWX`k UfYb
i bØVYfgY`VUf" `A]h`* +; Y[YbhcYb`n`À`hY`X]Y`8YZYbg]j Y`ni`XYb
gWX`k `ÀWX`YfYb`XYf`@[Už`k Ug`XYf; fi bX`ZØf`X]Y`Ài Z][Yb
B]YXYf`U[Yb`k Uf" `J]YfnY`b`A U`a i gghY`XUg`HYUa `U`g`J Yf`YfYf
j ca `D`Uhn`[Y`Yb`i bX`_cbbhY`YX][`]WX`g]YVYb`Gd]Y`Y`ZØf`g]WX
YbhgWX`Y]XYb" `I a `]b`X]YgYf`GU]gcb`b]WX`hYfbYi h]a `i bhYfYb
HUVY`YbXf]hhY`ni `UbXYbž`g]bX`XYi h]WX`Y`J YfVYggYfi b[Yb
[YZcfXYfh"

GhUf_Y`@Y]ghi b[Yb`gY]hYb g`6UmYf`\$(
@Yj Yf_i gYb

=a ; Y[YbgUhn`XUni `cbbhY`6UmYf`\$('@Yj Yf_i gYb`X]Y`j Yf[Ub[YbY
GU]gcb`a]h`6fUj ci f`a Y]ghYfb" `8]Y`A UbbgWX`UZh`ghY`hY`X]Y`VYghY
5Vk Y`f`XYf`@[U`a]h`bi f`&(; Y[YbhcYb`i bX`ZY]YfhY" (`Gd]Y`Y
c`bY`B]YXYf`U[Y" `8]Yg`nY][h`X]Y`Gh`Af`_Y`i bX`GhUV]`]h`Ah`XYg`HYUa gž
X]Y`g]Y`]b`X]Y`_ca a YbXY`GU]gcb`a]hbY`a Yb`a ÒWX`hYb" `8]Y

; fi bX`U[Y`ZØf`Y]bYb`k Y]hYfYb`YfZc`[fY]WYb`@Ui Z]b`X]YgYf`GU]gcb
gWY]bhXUa]h[Y`Y[h`ni`gY]b"

8]Y`J cfZfYi XY`Ui ZXUg`Gd]Y`]gh`Ybcfa ž`XU`VY]XY`HYUa g
i bhYfgWY]YX`]WY`5bgdfØWY`i bX`N]Y`Y`j YfZc`[Yb"; `UXVUW`a i gg
XUfi a`_`Åa dZYbž`X]Y`ghUf`Yb`@Y]ghi b[Yb`j cb`@Y] Yf`_i gYb`ni
VfYWYb`i bX`g]WY`i a`X]Y`Y][YbY`G]WYf`Y]h]b`XYf`HUVY`Y`ni
_Øa a Yfb": Øf`@Y] Yf`_i gYb`]gh`YXYf`Di b`h`k]W]h][ž`i a`XYb`H]hY`
ni`j YfhY]X][Yb`i bX`XYb`8fi W`Ui ZX]Y`J YfZc`[Yf
Ui ZfYW]hni Yf`Y`hYb"

GW`ØggY`ghUh]gh]_Yb

HYUa D`Uhn`YhnhY Di b`hY ; Y[Ybhc fY A UI]a U`Y
GU]gcb Di b`hY

| | | | | |
|-----------------------------------|---------|-----------|----------|----------|
| 6cfi gg]U`A`Ø bWYb[`UXV UW | %(` | ' (` | * + ` | &% ` |
| 6UmYf`\$(@Y] Yf`_i gYb | % ` | - \$ ` | &(` | ' (` |

A]h`<][\`][\hgž`X]Y`Xi fW`X]Y`8YZYbg]j Y`j cb`@Y] Yf`_i gYb`i bX`XYb
_Åa dZYf]gWYb`K]`Yb`j cb`; `UXVUW`[YdfÅ[h`g]bXž`k]fX`XUg`Gd]Y`
g]WYf`]WY`ni`Y]bYa`gdUbbYbXYb`8i Y`""`8]Y`; Ubg`VY]XYf
A UbbgWUZhYb`Yfk UfhYb`a]h`<cWgdUbbi b[`XUg
5i ZY]bUbXYfhfYZZYbž`XU`Yg`k Y]hYfY`5i ZgW`ØggY`ØVYf`X]Y`; cfa
i bX`XYb`Ni ghUbX`XYf`HYUa g]b`X]YgYf`GU]gcb`[YVYb`k]fX"

: Øf`; `UXVUW`]gh`Yg`j cb`YbhgWY]XYbXYf`6YXYi hi b[ž`X]Y
XYZYbg]j Y`GhUV]`hÅh`ni`Yf`Ø`Yb`i bX`j]Y`Y]W]hY]b][Y`K`YW]gY`]a
HYUa`j cfni bY`a Ybž`i a`X]Y`VYb`Øh][hY`9bYf[]Y`i bX`A`ch]j Uh]cb
Ui ZX]Yb`D`Uhn`ni`Vf]b[Yb"B]W]h`ni`Yhnh]gh`X]Y`?ca`a`i`b]_Uh]cb
i bhYf`XYb`Gd]Y`Yfb`YggYbn]Y`ž`i a`X]Y`; Y`Yf`XYf`YhnhYb`GU]gcb
ni`j Yfa`Y]XYb"

⊖`X]YgYa`?cbhYI`h]gh`XUg`UbghY`YbXY`Gd]Y`b]W]h`bi`f`Y]b
k Y]hYfYg`A`UhW`]b`XYf`6i bXYg][Už`gcbXYfb`_ØbbhY`Ui W
f]W]hi b[gk Y]gYbX`ZØf`X]Y`_ca`a`YbXYb`K`cWYb`VY]XYf

A UbbgWUZhYb'gY]b"8Yf'5i g[Ub['XYg'Gd]Y`g`_ÖbbhY`gck c\`XYb
K Y['ZØf'; `UXVUW`YVbYbž'g]W`]b`XYf`HUVY`Y`ni`ghUV]`g]YfYbž'U`g
Ui W`X]Y`8ca]bUbn'j cb`@Yj Yf_i gYb`i bhYfa Ui Yfb`i bX`ZYgh][Yb"

8Yf'6`]W_`Ui Z`XUg`Gd]Y`

8Yf': c_i g`Y[h`Yhnh`Ui Z`XYf'5i gZØ\fi b[`i bX`XYb`hU_h]gWYb
GhfUhY[]Ybž'X]Y`VY]XY`HfU]bYf`Yb`hk]W_`Y`b`_ÖbbYb"K]Y'; `UXVUW
[Y[Yb`X]Y`5Vk Y\`f`j cb`@Yj Yf_i gYb`Ubgd]Y`Yb`k]fXž`V`Y]Vh
UVni k UfhYb" `@Yj Yf_i gYb` \]b[Y[Yb[Y\`h`a]h`XYa` `GY`Vghj`YfhfUi`Yb
XYf`Y`hnhYb`GU]gcb`]b`XUg`A`U`h`W`i`b`X`]gh`VYfY]hž`YfbYi`h`ni`nY][Ybž
k Ug`g]Y`_ÖbbYb"8]Y`GdUbbi b[`ghY][hž`i bX`Yg`k]fX`]bhYfYggUbh
gY]b`ni`VYcVUW`hYbž`k]Y`g]W`X]Y`VY]XYb`A`UbbgWUZhYb
[Y[YbØVYfghY\`Yb`i bX`cV'; `UXVUW`]b`XYf`@U[Y`gY]b`k]fXž`X]Y
@Yj Yf_i gYbYf`ni`ØVYffUgWYb"

5_hi Y`Y`Gd]Y`YfYb`hk]W_`i b[Yb`i bX HfUbgZYfg

⊕`XYf`U_hi Y`Yb`GU]gcb`\Uh'6cfi gg]U`A`ÖbWYb[`UXVUW`[`fc» Y
5bgfhYb[i b[Yb`i bhYfbca`a`Ybž`i`a`XUg`HYUa`Xi`fW`[Yn]Y`hY
HfUbgZYfg`ni`j`Yfgh`Å`f`_Yb"i`bhYf`UbXYfYa`k`i`fXY`Y]b`bYi`Yf
J`YfhY]X][Yf`j`YfdZ]W`hYhž`i`a`X]Y`8YZYbg]j`Y`ni`ghUV]`g]YfYbž'X]Y`]b
XYf`Y`hnhYb`GU]gcb`UbZ`Å`][`k`Uf"8Yf'?`i`V`\Uh`Ui`W`]b`'b[Y
HU`Yb`hY`]bj`Ygh]Yfhž`i`a`Zf]gWYb`K`]bX`]b`X]Y`A`UbbgWUZh`ni
Vf]b[Yb"8]YgY`⊕j`Ygh]h]cbYb`gd]Y[Y`b`XYb`K`i`bgW`k`]XYfž`]b`XYf
HUVY`Y`bUW`cVYb`ni`_`Y`hYfb`i`bX`g]W`]b`XYf`6i`bXYg`][U`ni
YhUV`]YfYb"

5i Z`XYf`UbXYfYb`GY]hY`_cbbhY`6UmYf`@Yj Yf_i gYb`k]W`h][Y`Gd]Y`Yf
k]Y': `cf]Ub`K`]fm`i`bX`YfYa`]Y': f]a`dcb[`U`hYb" `Å`fY`@Y]ghi b[Yb
k UfYb`Y`bhgWY]XYbX`ZØf`XYb`Y`hnhYb`9fZc`[`XYf`A`UbbgWUZhž`i`bX
X]Y`J`YfY]bgfhUbgZYfg`gWY]bYb`XUfUi`Z`UVni`n]Y`Ybž`XUg`B`j`YUi`XYf
j`Yf[Ub[YbYb`GU]gcb`Ui`ZfYW`hni`Yf\U`hYb`cXYf`ni`ghY][Yfb"
@Yj Yf_i gYb`\Uh`Ui`W`]bhYfbUh]cbU`ni [YgW`b]hYbY`Gd]Y`Yf
j`YfdZ]W`hYhž`i`a`X]Y`Gei`UX!H]YZY`ni`Yf\Ö`Yb`i`bX`Ui`Z`a`Y\`fYfYb
: fcbhYb`_cb_i`ffYbnZ`Å`][`ni`gY]b"

HUVY`Ybdcg]h]cb`i bX`@Y]ghi b[gUbU`mgY

8]Y`i bhYfgW]YXY`b`XYb`@Y]ghi b[Yb`XYf`VY]XYb`A UbbgW UZhYb
g]bX`XYi h`]W]g]W]hVUf"K Å\fybX`; `UXVUW`a]h`bi f`g]YVYb`G]Y[Yb
]b`XYf`YmhYb`GU]gcb`ni `Åa dZYb`UhhYž`nY][hY`@Yj Yf`_i gYb`Y]bY
ZUgh`dYfZY`hY`6]`Ub"8Yf`i bhYfgW]YX`]b`XYf`5bnU`XYf
; Y[Ybhc`fY`i bhYfgh`fY]W]h`X]Y`B`chk YbX][_Y]h`ZØf`; `UXVUW`ž`Ub
]\fyf`8YZYbg]j Y`ni `UfVY]hYb`"GhUh]gh]_Yb`nY][Ybž`XUgg`HYUa gž`X]Y
a Y`f`U`g`*`\$` ; Y[Ybhc`fY`ni `UggYbž`]b`XYf`FY[Y`GW]k]Yf][_Y]hYb
UVYbž`YfZc`[fY]W]ni `gY]b`"

9]b`J Yf[`Y]W]`XYf`Gd]Y`gh]Y`nY][h`ni XYa ž`XUgg`@Yj Yf`_i gYb
j Yfgh`Å`f`h`Ui Z`6U`VYg]m`i bX`gW]bY`Yg`?ca V]bUh]cbggd]Y`gYmhž
k Å\fybX`; `UXVUW`Å`i Z][Yf`?cbhYf`bi mh"l a`k YhhVYk YfVgZÅ][
ni `V`Y]VYbž`a i gg`X]Y`6cfi gg]U`a Ò[`]W]Yfk Y]gY`]fy`hU`h]gW]Y
5i gf]W]hi b[`ØVYfXYb`_Yb`i bX`Y]bY`Ui g[Yk c[YbYfY`GhfUhY[]Y
Ybhc]W`Y`bž`i a`gck c`XYZYbg]j `ghUV]`ni `gY]b`U`g`Ui W]c`ZYbg]j
8fi W`Ui gni ØVYb"

J Yf[`Y]W]`XYf`J YfY]bg[YgW]W]hYb

9]b`6`]W`_`Ui ZX]Y`J YfY]bg[YgW]W]hY`VY]XYf`HYUa g`nY][h
]bhYfYggUbhY`DUfU`Y`Yb" `b`XYb`%-`+\$Yf`Å\fyb`k Uf`6cfi gg]U
A ÒbW]Yb[`UXVUW`Y]bY`XYf`Xca]b]YfYbXYb`?fÅZhY`]b`XYf
6i bXYg`][U`i bX`_`cbbhY`g]W]`a Y`fa U`g`XYb`A Y]ghYfh]hY`g]W]Yfb"
@Yj Yf`_i gYb`Y]b[Y[Yb`U`h`Y]bY` ; YgW]W]hYž`X]Y`j cb`_`cbghUbhY`a
5i Zi bX`5V`[YdfÅ[h]ghž`a]h`XYa `N]Y`ž`g]W]U`g`Y]bYf`XYf`Hcd!
?`i Vg`ni `YhUV`]YfYbž`YXcW]c`bY`V]g`Ub[`Y]bYb`A Y]ghYfh]hY`ni
[Yk]bbYb"

6Y]XY`J YfY]bY`UVYb`YXcW]X]Y`HYbXYbnž`hU`Ybh]YfhY`Gd]Y`Yf
Yfj`cfni Vfb[Yb`i bX`]bYb`X]Y`A Ò[`]W]_Y]h`ni `[YVYbž`g]W]b`XYf
6i bXYg`][U`i bX`]bhYfbUh]cbU`ni `VYk Y]gYb"; `UXVUW`U`h]b`XYf
J Yf[Ub[Yb`Y]h]j]Y`Y`Gd]Y`Yf`YfZc`[fY]W]j Yf`_Ui Zhž`X]Y`g]W]gd`Å`hYf
ni `GhUfg`Ybhc]W`Y`h`UVYbž`k Å\fybX`@Yj Yf`_i gYb`XUZØf`VY`Ubbh
]ghž`HU`YbhY`Ui g`XYa `Y][YbYb`BUW]k i W]g`Y]ghi b[gnYbhfi a`ni
ZØfXYfb`i bX`]b`DfcZ]a UbbgW UZhYb`ni `]bhY[f]YfYb"

2 _c b c a]gW\ Y '5gdY_hY 'XYg'K YhhVYk YfVg

8]Y'Z]bUbn]Y''Y'G]hi Uh]cb']gh'Y]b'k Y]hYfYf'YbHgW\Y]XYbXYf': U_hc f
]a 'XYi hgW\Yb': i »VU''''@Yj Yf_i gYb'\Uh'Xi fW\ '_cbh]bi]Yf']W\Y
gdcfh]W\Y'9fZc'[Y'i bX'X]Y'HY]'bU\ a Y'Ub'Yi fcdÅ]gW\Yb
K YhhVYk YfVYb'Y]bY'ghUV]'YfY'Z]bUbn]Y''Y'6Ug]g'[YgW\UZZYb''8]YgY
Z]bUbn]Y''Y'GhÅf_Y'Yfa Ò['W\h'Yg'XYa '?i Vž'ei U']hUhj
\cW\k Yfh][Y'Gd]Y'Yf'ni 'j YfdZ]W\hYb'i bX']b'X]Y' ðZfUghfi _hi f'ni
]bj Ygh]YfYb''; 'UXVUW\ '\]b[Y[Yb'a i gg'_fYUh]j Y '@Øgi b[Yb'Z]bXYbž
i a 'ja 'K YhhVYk YfV'ni 'V'Y]VYbž'k]Y'n'6''Xi fW\ 'ghfUhY[]gW\Y
HfUbgZYfg'i bX'X]Y'9bhk]W_'i b['Y][YbYf'HU'YbhY''

8 UhYb'nY][Ybž'XUgg?'i Vgž'X]Y]'b'XYf'@U[Y'g]bXž'\f
k]fhgW\UZh]W\Yg'K UW\ghi a 'a]h'gdcfh]W\Ya '9fZc'['ni 'j YfV]bXYbž
]b'XYf'fY[Y''Y]bY'hfU[ZÅ\][Y'; fi bX'U[Y'ZØf'ni _ØbZh][Y'9fZc'[Y
\UVYb''i a ZUggYbXY'Ghi X]Yb'\UVYb':[YnY][hž'XUgg'Y]bY'ghUf_Y
k]fhgW\UZh]W\Y'6Ug]g'Yf\YV'W\ 'ni f'@Y]ghi b[gghY][Yfi b['Ui ZXYa
D'Um'VY]hfÅ[h''5_hi Y''Y': ÒfXYfdfc'Y_hY'i bX
:]bUbn]Yfi b[ga cXY''Yb']b'XYf'6i bXYg'] [U'_ØbbhYb'YbHgW\Y]XYbX
ZØf'X]Y'9bhk]W_'i b['VY]XYf?'i Vg'gY]bž'i a '\fY'Y\ f[Y]n][Yb'N]Y'Y
ni 'YffY]W\Yb''

8 YhU]`g

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