

; Yk U`hhÄh][Yf`K]XYfghUbX`]b`9gg`]b [Yb.
Dc`]nY]`VY]: YghbU\ a Y`j Yf`Yhnh

B UWÄ`hÄh]WYa`5b[f]ZZ`Ui Z`Dc`]nY]VYUa hY`]b`9gg`]b [Yb.
&' !Ä\ f][Yf`]b`l bhYfgi WÄi b[g\UZh"J]Yf`6YUa hY`j Yf`Yhnh"

÷`9gg`]b [Ybž`Y]b`J cfZU``Ua`GUa ghU[UVYbX`fl %"\$, "&\$&(Ł\ Uh`ZØf
5i ZgY\Yb` [Ygcf[hž`U`g`Y]b`&' !Ä\ f][Yf`A Ubbž`VY`_Ubbh`VY]`XYf
Dc`]nY]ž`Yf\YV`]WY; Yk U`h[Y[Yb`Dc`]nY]VYUa hY`Y]ghYhY"8]Yg
[YgWÄU`]a`Ni [Y`gY]bYf': YghbU\ a Yž`X]Y`Ui Z[fi bX`Y]bYf
j cfUi g[Y[Ub[YbYb`GUWVYgWÄX][i b[`Y]b[Y`Y]hYh`k i fXY"

NYi [Yb`VYf]WÄhYbž`XUgg`XYf`6YgWÄi`X][hY` [Y[Yb`%+"%)`l`f`Y]bY
: YbghYfgWÄY]VY`Ua` ; YVÄi XY`XYf`<cWÄgWÄi`Y`]b`XYf`?UbU`ghfU» Y
nYfgWÄ`i ["K Ybb`XUg`_Y]bY`U`Ufa]YfYbXYb`BUWÄf]WÄhYb`g]bX`8]Y
Dc`]nY]`k i fXY`i a [Y\YbX`]bZcfa]Yfhi bX`hfUZ`_i fn`XUfUi Z`Ui Z`XYb
a i ha U»`]WÄYb`HÄhYfž`XYf`ghUf`_U`_c\c`]g]Yfhi bX`a Ö[`]WÄYfk Y]gY
i bhYf`XYa`9]bZi gg`UbXYfYf`8fc[Yb`ghUbX"K Ug`XUfUi Z`Zc`[hYž
k Uf`Y]b`YZh][Yf`K]XYfghUbX`XYg`&' !Ä\ f][Ybž`XYf`YhnhYbX`]WÄ
XUni`ZØ\fhYž`XUgg`Yf`]b`l bhYfgi WÄi b[g\UZh`[Ybca`a Yb`k i fXY"

5b[f]ZZ`Ui Z`X]Y`6YUa hYb

6Y]`XYf`?cbhfc`Y`j Yfgi WÄhYb`X]Y`Dc`]n]ghYbž`XYb`U[[fYgg]j Yb
A Ubb`ni`VÄbX][Ybž`k Ug`g]WÄ`U`g`k U\ f]WÄ`YfUi gZcfXYfbX
Yfk Y]gh"8Yf`6YgWÄi`X][hYž`XYf`g]WÄ`j Y\Ya Ybh`k Y\fhYž`k i fXY`a]h
<UbXgWÄ`]Y» Yb` [YZYggY`hi bX`VY`_Ua`gWÄ`]Y»`]WÄ`Y]bY
GWÄi hn\Ui VY`ØVYf[Ync[Ybž`i a`Y]b`k Y]hYfYg`F]g]_c`ni
j Yfa Y]XYb"8cWÄ`gY]b`K]XYfghUbX`YbXYhY`b]WÄh`Xcfh`Yf`[f]ZZ`X]Y
9]bgUm_fÄZh`a]h: i » hf]hhYb`Ub"9fgh`U`g`k Y]hYfY`GhfY]ZYbk U[Yb
Y]bhfUZybž`[Y`Ub[Y`g`XYb`6YUa hYbž`XYb`A Ubb`ni`ØVYfk`Ä`h][Yb
i bX`ni`Zl]YfYb"

8]YgYf'[Yk U`hgUa Y`Ni gUa a Ybghc» `UhhY`i ba]hhY`VUFY` : c`[Yb.
J]Yf`Dc`n]ghYb`k i fXYb`VY]`XYa `J cfZU``hY]`g`Yf\YV`]W`j Yf`Yhnh
i bX`a i gghYb`g]W`Y]bYf`Ua Vi `UbhYb`6Y\UbX`i b[`]a
?fUb_Yb`Ui g`i bhYfn]Y`Yb``HfU[]gW`Yfk Y]gY`_ObbYb`nk Y]
6YUa h]bbYb`Ui Z[fi bX`]`fYf`J Yf`Yhni b[Yb`Ua `?cdZ`X]Y`Xi fW`
Hf]hhY`XYg`6YgW`i`X][hYb`j Yfi fgUW`h`k i fXYb`ž]\fYb`8]Ybgh`b]W`h
ZcfhgYhnYb``8Yf`&`!`Å`f][Y`gY`Vgh`Yf`]hh`bi f`Y]W`hY`J Yf`Yhni b[Yb`"

9g`]gh`Yfk Å`bYb`gk Yfh`ž`XUgg`XYf`A Ubb`Yfgh`nk Y]`K cW`Yb`ni j cf
Ui g`Y]bYf`< UZhUbghU`h`Yb`h`UggYb`k cfXYb`k Uf`ž`k c`Yf`Y]bY`GhfUZY
Z0f`X]j YfgY`8Y`]_hY`j YfV0» h`UhhY``8Ug`[]Vh`ni `XYb_Yb`0VYf`X]Y
k]YXYf`c`hY`?f]a]bU`]h`Å`hi bX`X]Y`< YfUi gZcfXYfi b[Yb`ž`X]Y`XUa]h
j YfVi bXYb`g]bX`"

8]Y`GhUUhgUbk U`hgW`UZh`Ghi hh[Ufh`\Uh`Ui Z[fi bX`XYf`GW`k YfY`XYg
J cfZU``g`Y]bY`I bhYfgi W`i b[`Y]b[`Y`Y]hYh``5a `GcbbhU[`k i fXY`XYf
6YgW`i`X][hY`gW`Y]Y» `]W`j cf`XYa `5a hg[Yf]W`h`9gg`]b[Yb
j cf[YZ0`fh`ž`k c`Y]b`< UZhVYZ`\`Yf`UggYb`k i fXY``8]Y`G]hi Uh]cb`k]fZh
Ui W` : fU[Yb`bUW`XYf`G]W`Yf\Y]h`XYf`9]bgUhn`f`Å`Zh`Ui Z`X]Y`g]W`
gh`Å`bX][`]b`f]g_UbhY`G]hi Uh]cbYb`VY[YVYb`a 0ggYb`ž`i a`X]Y
0ZYb`h]W`Y`C`fXbi b[`Ui ZfYW`hni Yf`U`hYb`"

?cbgYe i YbnYb`Z0f`X]Y`Dc`nY]

8]Y`Dc`nY]`ghY`\h`j cf`XYf`< YfUi gZcfXYfi b[`ž`VY]`gc`W`Yb`J cfZ`Å``Yb
Ub[Ya YggYb`ni `fYU[]YfYb`i bX`XUVY]`X]Y`G]W`Yf\Y]h]`fYf
6YUa hYb`ni `[Yk Å`f`Y]ghYb``ϕ`X]YgYa ` : U``a i gghY`X]Y`Dc`nY]
Yf\YV`]W`Y`?fUZ`h`Ui Zk YbXYb`ž`i a`X]Y`?cbhfc``Y`0VYf`XYb`A Ubb`ni
Yf`Ub[Yb`ž`k Ug`Ui Z`X]Y`F]g]_Yb`\]bk Y]gh`ž`X]Y`Dc`n]ghYb`\`Åi Z[
Ui g[YgYhnh`g]bX`ž`]bgVYgc`bXYfY`]a `I a [Ub[`a]h`U[[fYgg]j Yb
J YfX`Å`W`h][Yb``8]YgYg`9fY][b]g`]gh`b]W`h`bi f`Y]b`k Y]hYfYg`6Y]gd]Y`
Z0f`X]Y` ; YZU`fYb`ž`XYbYb`X]Y`Dc`nY]`Ui g[YgYhnh`]gh`ž`gc`bXYfb`Ui W`
Y]b`<]bk Y]g`XUfUi Z`k]Y`k]W`h][`d`f`Å]j Yb]h]j Y`A U» bU`a Yb`i bX`Y]b
Ub[Ya YggYbYf`I a [Ub[`a]h`d`gmW`]gW`Yb`i bX`d`\mg]gW`Yb
5[[fYgg]cbYb`g]bX`"

ϕ`5bVYhfUW`h`XYf`k]YXYf`_Y`fYbXYb`DfcV`Ya Uh]_j cb
; Yk U`hhUhYb`[Y[Yb`Dc`nY]VYUa hY`a 0ggYb`a 0[`]W`Yfk Y]gY`bYi Y

GhfUhY[]Yb`Ybhk]W_Y`hi bX`]a d`Ya Ybh]Yfh`k YfXYbž`i a `gck c\`X]Y
G]W`Yf\Y]h`XYf`6YUa hYb`U`g`Ui W`XUg`K c\`XYf`6Øf[Yf`ni
gW`ØhYb``8Yf`H`hYf`k]fX`bi b`]b`l bhYfgi W`i b[g\UZh`V`Y]VYbž
k Å\fybX`X]Y`9fa]h`i b[Yb`k Y]hYf`Ui ZYbž`i bX`Yg`V`Y]Vh
UVni k UfhYbž`k Y`W`Y`k Y]hYfYb`fYW`h]W`Yb`GW`f]hY`i bhYfbca a Yb
k YfXYb`"

8YhU]`g

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