

9]bVfi Wk]b '?`Yj Y. i bVY_UbbhY`ghY\`Yb
HfYgcf`Ui g`9]bZUa]`]Yb\Ui g

I bVY_UbbhY`HÄhYf`VfUWkYb`]b'?`Yj Y`Y]bž`ghU\`Yb`Y]bYb
HfYgcf`a]h'6Uf[Y`X`i bX`8c_i a YbhYb"?'f]a]bU`dc`]nY]`gi Wk h
NYi [Yb"

?`Yj Y`]9]b`i bgWk`ÖbYf`J cfZU``\Uh`g]Wk`Ua`'8cbbYfghU[a cf[Yb`]b
?`Yj Y`YfY][bYh`i bVY_UbbhY`9]bXf]b[`]b[Y`\UVYb`g]Wk`Ni [Ub[`ni
Y]bYa`9]bZUa]`]Yb\Ui g`Ub`XYf`@Ødg`gWkYb`GhfU»Y`j YfgWk`UZZh`i bX
Y]bYb`GWk`fUb`hfYgcf`Ybhk`YbXYh"8]Y`5fh`i bX`K`Y]gYž`k]Y`X]Y`HÄhYf
j cf[]b[Ybž`Äggh`Ui ZY]bY`[i h`Xi fWk`XUWk`hY`D`Ubi b[`gWk`]Y» Yb"

B UWk`XYa`X]Y`9]bVfYWk`Yf`XYb`; `UgY]bgUhn`XYf`; UfhYbhØf
Y]bVfUWk`Ybž`ÖZb`YhYb`g]Y`[Yk`U`hgUa`X]Y`<Ui ghØf`i bX`[Y`Ub[hYb
]bg`bbYfY`XYg`<Ui`gYg"8cfh`\UVYb`g]Y`Y]bYb`HfYgcf`Ui`g`Y]bYa
FY[U`[Yf]ggYb"8]Y`6Yi`hY`gWk`Ähni b[gk`Y]gY`]a`ZUgh`ZØb`ZghY``[Yb
6YfY]Wk`ž`VY]b\U`hYhY`b]Wk`h`bi`f`6Uf[Y`X`ž`gcbXYfb`Ui`Wk`nk`Y]
k`]Wk`h][Y`8c_i`a`YbhY" `HUhg`ÄWk`]Wk`gdFYWk`Yb`X]Y`8YhU]`g`XYg
J cfZU`g`ZØf`g]Wk`i`bX`nY][Ybž`k]Y`_f]a]bY``cf[Ub]g]YfhY`; fi`ddYb
\Yi`hY`U[]YfYb"

9fa]hh`i b[Yb`XYf`Dc`]nY]

8]Y`?f]a]bU`dc`]nY]`?`Yj Y`\Uh`fUgWk`9fa]hh`i b[Yb`Ui Z[Ybca`a`Yb
i`bX`gi`Wk`h`b`UWk`NYi [Ybž`X]Y`Ua`A`cf[Yb`a`Ö[`]Wk`Yfk`Y]gY
j`YfX`ÄWk`h][Y`5`_hj]hÄhYb`VYc`VUWk`hYh`\UVYb" <]bk`Y]gY`Ui`ZX]Y
; YgWk`Y\b]ggY`_ÖbbYb`i`bhYf`XYf`HY`YZcbbi`a`a`Yf`\$&, &%) \$(\$
[Ya`Y`XYh`k`YfXYb"9g`V`Y]Vhni` \c`ZYbž`XUgg`Xi`fWk`X]Y
NYi [YbUi`ggU[Yb`X]Y`HÄhYf`gWk`bY``]XYbh]Z]n]Yfhk`YfXYb`_ÖbbYb"

9]b`9]bVfi Wk`k]Y`X]YgYf`]gh`b]Wk`h`bi`f`Y]b`a`UhYf]Y``Yf`J`Yf`i`gh`ZØf

X]Y`VYhfcZZYbY': Ua]]Yž'gcbXYfb'Ui W`Y]bY`Yf\YV`]WXY`6Y`Ughi b[
ZØf`XUg`G]WXYf\Y]hg[YZØ\`XYf`5bk c`bYf"8]Y`9f_Ybhb]gž`XUgg`X]Y
Y][YbYb`j]Yf`K`ÅbXY`b]W`h`a`Y`f`g]WXYf`g]bXž`_Ubb`ni`Y]bYa
[fc»Yb`dgmW]gWXYb`8fi W`_ZØ\`fYb" `ϕ`gc`WXYb`G]hi`Uh]cbYb`ghY`Yb
g]W`j`Y`Y`X]Y': fU[Yž`k`Y`WXY`A`U»bU`a`Yb`ni`f`G]WXYfi`b[`XYg
Y][YbYb`<Y]a`g`Yf[f]ZZYb`k`YfXYb`_ØbbYb"

8Yf`5i`gXfi`W`_Y]bYf`VYgcf[b]gYffY[YbXYb 9bhk]W`_i`b[

8Yf`9]bVfi`W`_b`?`Yj`Y`gd]Y[Y`h`ni`XYa`Y]bYb`U`Ufa`]YfYbXYb
HfYbX`k`]XYfž`XYf`]b`j`]Y`Yb`FY[]cbYb`ni`VYcVUW`hYb`]gh"8Yf
5bgh]Y[`j`cb`K`c`b`i`b[gY]bVfØWXYb`]b`XYb`Y`h`hYb`_U`fYb`nY][hž
XUgg`j`]Y`Y`A`YbgWXYb`g]W`ni`bY`a`YbX`ni`a`N]Y`j`cb`?`f]a`]bY`Yb
a`UWXYb"6YgcbXYfg`]b`ÅbX`]WXYb`; Y[YbXYbž`k`c`c`Z`h`k`Yb][Yf
, VYfk`UW`i`b[`i`bX`G]WXYf\Y]hga`U»bU`a`Yb`j`cf`U`b`X`Y`b`g]bXž
ZØ\`Yb`g]W`_<`Ui`g`U`h`Y`U`b`Z`Å`][Yf`ZØf`gc`WXY`, VYf[f]ZZY"

8Ug': Y`_Yb`j`cb`Ui`[YbgWXY]b`]WXYb`G]WXYf\Y]hgj`cf`_Y`fi`b[Yb
_Ubb`ZØf`9]bVfYWXYf`c`Z`h`Y]bY`9]b`UXi`b[`XUfghY`Yb"
G]WXYf\Y]hgYI`dYfhYb`Ya`dZY`_Yb`XU`Yfž`A`U»bU`a`Yb`k`]Y
5`Ufa`Ub`U[Ybž`?`Ua`YfUg`i`bX`X]Y`Gh`Å`f`_i`b[`j`cb`HØfYb`i`bX
: YbghYfb`ni`VYfØW`_g]W`h][Yb"8UfØVYf`\]bUi`g`]gh`Yg`f`UhgUa`ž`]a
Y][YbYb`K`c`b`j`]YfhY`Y]b`5i`[Y`Y`Ui`Z`j`YfX`Å`W`h][Y`5`_h]j`]h`hYb`ni
\UVYb`i`bX`Yb[Yf`a`]h`B`UW`V`U`fb`ni`gUa`a`Ybni`UfVY]hYb"

`9]bY`gh`Å`f`_YfY`B`UW`V`U`fg`W`U`Z`hgk`UWXY`_Ubb`]b`j`]Y`Yb`: `Å`Yb
UVgW`fY`W`_YbX`k`]f`_Yb"8]Y`GYbg]V`]g]Yfi`b[`ZØf`X]YgY`DfcV`Ya`Uh]_
i`bX`XYf`5i`ghUi`gW`j`cb`ϕ`Zcfa`Uh]cbYb`nk`]gWXYb`B`UW`V`U`fb
_ØbbYb`Yb`hgWXY]XYbX`X`Uni`VY]hfU[Ybž`XUg`G]WXYf\Y]hg[YZØ\`]b
XYf'; Ya`Y]bXY`ni`gh`Å`f`_Yb"

ϕ`?`Yj`Y`nY][h`X]YgYf`J`cf`ZU`ž`XUgg`b]Ya`UbX`j`cf`Y]bYa`9]bVfi`W
[YZY]h`]ghž`Ui`W`_b]W`h`]b`fi`\][Yb`K`c`b[Y[YbXYb"8Yf`J`Yf`i`gh]`cb
K`Yfh[Y[Ybgh`Å`b`XYb`]gh`g`W`a`Yfn`\U`Z`ž`X`c`W`X`Ug`; YZØ\`XYf
I`bg]WXYf\Y]h`]gh`c`Z`h`bc`W`j`]Y`[fUj`]YfYbXYf"K`Å`f`YbX`X]Y`Dc`]nY]
]\fY`5`fVY]h`Ui`Zb]a`a`hi`bX`j`Yfgi`W`hž`X]Y'; YgW]W`hYb`\]bhYf`XYb
Ubc`b`ma`Yb'; Yg]W`hYfb`XYf`H`h`Yf`ni`Yb`hgW`Ø`ggY`b`ž`a`i`gg`X]Y

; Ya Y]bgWk UZhik UWk gUa `V`Y]VYb"

8]Y`9fa]hhi b[Yb`g]bX`bcWk`ja `; Ub[Yzi bX`X]Y`<cZZbi b[`Ui Z
gWk bY`Y`5i Z_`Äfi b[`V`Y]Vh`VYghY`Yb``9g`]ghi bYf`Ägg`]Wk ž`XUgg
6Øf[Yf`g]Wk`b]Wk hgWk Yi Ybz`]\fY`6YcVUWk hi b[Yb`ni `a Y`XYb`i bX
U_hj] `ni f`G]Wk Yf`Y]h`i]b`]\fYa `l a ZY`X`VY]ni hfU[Yb"

9]bVfi Wk_g_f]a]bU`]hÄh`]b`8 Yi hgWk `UbX

9]bVfi Wk_g_f]a]bU`]hÄh`]gh`Y]b`k Y]hj YfvfY]hYhYg`D\`Äbca Yb`]b
8 Yi hgWk `UbX`i bX`\Uh`]b`XYb`Y`hnhYb`d]\fYb`nU`\fY]Wk Y`<Ui g\U`hY
VYhfcZZYb``@Ui h`XYf`Dc`]nY`]Wk Yb`?f]a]bU`ghUh]gh]_`fD?GŁ`&\$&%[UV
Yg`Yhk U`, %"\$\$\$`9]bVfØWk Y`]b`K c\bfÄi a Yž`k Ug`Y]bYa `FØW_[Ub[
i a `; i `]a `J Yf[`Y]Wk`ni a `J cf`U`\f`Yb hgd]Wk h``8]YgY`NU`\Yb
nY][Ybž`XUgg`hfch`Y]bYg`U``[Ya Y]bYb`HfYbXg`ni f`5VbU\`a Y`j cb
9]bVfØWk Ybž`9]bVfØWk Y`]b`9]bZUa `]Yb\Äi gYf`k]Y`]b`?`Yj Y
k Y]hYf\]b`Y]bY`<YfUi gZcfXYfi b[`XUfghY`Yb"

8]Y`HÄhYf`bi hnYb`\Äi Z][`X]YgY`VYb`A Yh\cXYbž`k]Y`XUg
9]bgWk `U[Yb`j cb`; YbghYfb`cXYf`HØfYbž`i a `]b`X]Y`K c\bi b[Yb`ni
[Y`Ub[Yb``G]Wk Yf`Y]hgYI dYfhYb`Ya dZY`\Yb`XU\Yfž`[YY][bYhY
A U» bU\`a Yb`ni f`9]bVfi Wk_gdfÄj Ybh]cb`ni `Yf[fY]ZYbž`k]Y
VY]gd]Y`gk Y]gY`XYb`9]bVUi `j cb`\cWk Yfh][Yb`GWk`ØggYfb`cXYf
XUg`5bVf]b[Yb`j cb`; VYfk UWk i b[g_Ua YfUg"

A U» bU\`a Yb`XYf`?f]a]bU`dc`]nY]

⇒ : U``XYg`9]bVfi Wk_g`Ub`XYf`@Ødg gWk Yb`GhfU» Y`\Uh`X]Y
?f]a]bU`dc`]nY`]b`?`Yj Y`X]Y`9fa]hhi b[Yb`Ui Z[Ybca a Yb`i bX
gi Wk h`U_hj] `bUWk`NYi [Yb``6Y]`9]bVfØWk Yb`g]bX`B UWk VUfb`cXYf
DUggUbhYb`cZh`X]Y`YfghYbž`X]Y`j YfXÄWk h][Y`5_hj]]hÄhYb`VYa Yf`Yb"
8]Y`Dc`]nY`]V]hhYhi a `<]bk Y]gYž`X]Y`ni f`5i Z_`Äfi b[`gc`Wk Yf`8Y`]_hY
VY]hfU[Yb`_ØbbYb``8]Y`Ni gUa a YbUfVY]h`XYf`6Yj Ö`_Yfi b[`a]h
XYb`6Y\ØfXYb`]gh`Y]b`YbhgWk Y]XYbXYf`5gdY_h]a `?Ua dZ[Y[Yb`X]Y
9]bVfi Wk_g_f]a]bU`]hÄh"

8]Y`Dc`]nY`]ZØ\fh`Ui Wk`j YfghÄf`_h`DfÄj Ybh]cbga U» bU\`a Yb`Xi fWk ž
i a `XUg`6Yk i gghgY]b`ZØf`9]bVfi Wk_ggWk i hn`ni `Yf\Ö\Yb``8Uni

[Y\ÖfYb' ðZcfa Uh]cbgj YfUbgU`hi b[Yb'i bX'6YfUhi b[Yb']b'XYb
; Ya Y]bXYb"Ni XYa 'k YfXYb'fY[Y'a Å»]['5_h]cbYb'ni f
, VYfdfØZ b['XYf'G]WYf\Y]hj cb'K c\b\Åi gYfb'Xi fW [YZØ\fh"

F Y []cbU`Y`HfYbXg'i bX`9bhk]W_`i b [Yb

F Y []cbU`Y`i bhYfgW]YXY`j b'XYf'9]bVfi W_g_f]a]bU`]hÅh'g]bX
YVYbZU`g'ni 'VYcVUW hYb" ' ð`Y]b][Yb'GhÅXhYb'k]Y'?`Yj Y`_ÖbbhY
Y]bY'Ni bU\ a Y`j cb'9]bVfØWYb'k Å\ fYbX'XYf'i f`Ui VgnY]h
ZYgh[YghY`h'k YfXYbž'k Ybb'j]Y`Y`<Ui g\U`hY`YYf'ghY\Yb"8]Y
K]fhgW UZh'U[Y`i bX'X]Y`U`[Ya Y]bY'G]WYf\Y]hg`U[Y`]b`Y]bYa
; YV]Yh'_ÖbbYb'YVYbZU`g'9]bZi gg'Ui Z'X]Y`?f]a]bU`]hÅhgfUhYb
\UVYb"

J cf`X]YgYa`<]bhYf[fi bX`]gh`Yg`ZØf'5bk c\bYf'k]W]h[ž'g]W`ØVYf
X]Y`G]WYf\Y]hg`U[Y`]b`]fYf'F Y []cb`]bZcfa]Yfh'ni` \U`hYb`i bX
[Y[YVYbYbZU`g'dfcd\m`U_h]gWY`A U» bU\ a Yb'ni`Yf[fY]ZYb"
Gc`WY`dfÅj Ybh]j Yb'GWf]hY`_ÖbbYb'b]W]h'bi f`XUni`VY]hfU[Ybž
9]bVfØWY`ni`j Yf\]bXYfbž'gcbXYfb'Ui W`XUg'U`[Ya Y]bY
G]WYf\Y]hg[YZØ\`i bhYf'XYb'6Yk c\bYfb'ni`ghÅf_Yb"

8YhU]`g

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