

J YfVcf[YbYg`K]Yb. '9bhXYW_Yb`G]Y`X]Y
; Y\Y]a b]ggY`XYf`<cZVi f[`i bX
? UhU_ca VYb`

9bhXYW_Yb`G]Y`K]Ybg`j YfVcf[YbY`; YgW]W`hY.`; Y\Y]a b]ggY
XYf`<cZVi f[ž? UhU_ca VYb`i bX`i bhYf]fX]gW`Yb`@UVmf]bh\Y"



K]Ybž`² ghYffY]W`!`ϕ`XYf`GhUXh`XYf`A i g]_`i bX`XYf`\]ghcf]gW`Yb
DfUW`h[]Vh`Yg`j]Y`a Y\f`ni` `YbhXYW_Ybž`U`g`XUg`5i [Y`Ui Z`XYb
YfghYb`6`]W`YfU`bYb`_Ubb``8]Y`8c`_i a YbhUh]cb` HYffU`L`<]ghcfm
a UW`hg]W`Ui Z`X]Y`gdUbbYbXY`FY]gY`ni` j YfVcf[YbYb
GW`Ui d`ÀhnYb`XYf`; YgW]W`hY`]b`K]Yb``I bVYa Yf_hj`cb`XYb
A]`cbYb`Hci f]ghYbž`X]Y`XYb`Ghd`UbgXca ž`X]Y`F]b[ghfU»Y`i bX
X]Y`<cZVi f[`fY[Y`a À»][`Ui Zgi W`Ybž`]Y[Yb`i bnÀ`\`][Y
; Y\Y]a b]ggY`j YfVcf[Yb`"HY`Y"Uh`VYf]W`hY`hž`XUgg`

8]Y`<cZVi f[ž`X]Y`ØVYf`+\$\$`>U`fY`XUg`A UW`hnYb`hfi a`XYf
<UVgVi f[Yf`k Ufž`gd]Y`h`XUVY]Y]bY`nYb`hfU`Y`F`c`Y``6YgcbXYFY
<YffgW`Yf`k]Y`A Uf]U`H`YfYg]U`i bX`?U]gYf`: fUbn`εgYd`j Yf`Y]\Yb

X]YgYa [YgW]W hghfÅW h][Yb`C fh`ni`gÅm`]W Yg; Yk]W h" `Δ fY
DfYa]YfYb`VY[]bbYb`]b`XYb`Å`hYghYb`HY]`Yb`XYf`<cZVi f[žX]Y
VYfY]hg`]a`%`" `Δ\ f\ i`bXYfh`Yff]W hYh`k`i`fXYb" `8cW`XUg`GW`cgg
]gh`_Y]bYgk`Y[g`bi`f`Y]bY`V`c»`Y`Hci`f]ghYbUhhfU`_h]cb`a`]h`gY]bYb
&*\$`\$`N]a`a`Yfb`i`bX`%,`HfU`_hYb"

8 Ug`i`b hYf]fX]gW Y`@UVmf]b h\

I`b hYf`XYf`<cZVi f[`j`YfV]f[h`g]W`_Y]b`VYY]bXfi`W`_YbXYg`@UVmf]b h\
Ui`g;`Åb[Yb`i`bX`?`Y`Yfbž`XUg`hY]`k`Y]gY`j`]Yf`9hU[Yb`h]YZ`fY]W`h`
I`b hYf`X]YgYb;`Åb[Yb`[]Vh`Yg`@Y[YbXYb`ØVYf`[Y`Y]a`Y
J`YfV]bXi`b[Ybž`Yhk`U`X]Y`fi`bX`i`a`?`U]gYf]b`G]g]i`bX`Y]bYb
Ni`W`_YfV`Å`W`_Yf" `5i`W`X]Y;`YfØ`W`hY`ØVYf`Y]bY`J`YfV]bXi`b[
nk`]gW`Yb`XYf`<cZVi f[`i`bX`XYf`Y`Ya`U][Yb`?`U]gYffYg]XYbn`g]bX
gdUbbYbXž`k`i`fXYb`UVYf`V]g`Yf`b]W`h`VYgh`Åh][h" `J`Y`a`Y`f`]gh`X]Y
i`b hYf]fX]gW Y`_J`YfV]bXi`b[`nk`]gW`Yb`XYa` `6i`bXYg`_Ubn`YfUa`h`i`bX
XYf`<cZVi f[`X`YfnY]h`X]Y`VY`_Ubb`hYghY" `8Yf`?`i`f]Yf`Yf`_`Åfh`

Δ`K`]Yb`g]bX`X]Y`?`Y`Yf`ni`Y]bYa`k`YgYbh]W`Yb`HY]`XYf
GhUXh[YgW]W hY`[Yk`cfXYb" `J`]Y`Y`X]YgYf`i`b hYf]fX]gW Yb`F`Åi`a`Y
k`i`fXY`bUW`X`Yb`HØf`_YbVY`U[Yfi`b[Yb`]a`%`*`" `i`bX`%+`" `Δ\ f\ i`bXYfh
Yff]W`hYhž`i`a`X]Y`GhUXh`ni`gW`ØhnYb`i`bX`Ui`W`i`a`X`Yb`XUa`]h
j`YfVi`bXYbYb`K`Y]b`UbXY`ni`ZØfXYfb" `a` `9ghYf` \ ½nm`_Y`Yfž`XYf
VYfY]hg`gY]h`%`*` , ` `K`Y]b`Ui`ggW`Yb`_hž`_ØbbYb`6Ygi`W`Yf`Ui`ZY]bY
F`Y]gY`]b`X]Y`J`Yf[Ub[Yb`Y]h[Y`Yb" `I`b hYf`XYa` `@Ycdc`X]b]gW`Yb
HfU`_h`XYf`<cZVi f[`VYZ]bXYh`g]W`ni`XYa`XYf;`]dg`_Y`Yfž`k`c`Y]ba`U`
`Å`f`]W`_`g]hcf]gW`Y;`][i`fYb`k`]Y`?`U]gYf]b`G]g]a`]h`6Ygi`W
Ya`dZUb[Yb"

8]Y ;`Y`Y]a`b]ggY`XYf`?`UhU`_ca`VYb

8cW`b]W`h`bi`f`X]Y`?`Y`Yf`i`b hYf`XYf`<cZVi f[` \ UVYb`Yg`]b`g]W`" `8]Y
?`UhU`_ca`VYb`i`b hYf`XYa`GhYd`Ub`gXca`g]bX`Y]b`k`Y]h`Åi`Z[Yf
i`b hYf]fX]gW Yf;`f]YX`cZž`XYf`Ui`W`j`]Y`Y`C`d`ZYf`Y]bYf`DYghYd]XYa`]Y
Ui`g`XYa` `Δ\ f`%`*`+-`VY`YfVYf[h" `8Yf`GhYd`Ub`gXca` `[]`h`U`g`XUg
<Yfn`^2`ghYffY]W`g`i`bX`n]Y`h`a`]h`gY]bYb`GUf`_cd`U[!F`Åi`a`Ybž`X]Y
<UVgVi f[Yf!`<YffgW`Yfb`[Yk`]Xa`Yh`g]bXž`nU`f`Y]W`Y
;`YgW]W h]b hYfYgg]YfhY`Ub`ž`gc`XYf`?`i`f]Yf`

8]Y`VYXYi hYbXghY`6Y[fÅVb]gghÅhhY`XYf`< UVgVi f[Yf`]gh`X]Y
 ? Udi n]bYf[fi Zhžk c`X]Y`< YffgWXYf`XfY]ZUW`VYghUhhYh`k i fXYb.`]a
 GhYd\UbgXca`ZØf`X]Y`? ØfdYfž`X]Y`< YfnYb`]b`XYf`5i [i gh]bYf[fi Zh
 i bX`X]Y`@]W`bUa`Y`]b`XYf`? Udi n]bYf[fi Zh`<]Yf`ZUbX`g]W`gc [Uf
 Y]bY`F`YW`bi b[`ZØf`A`cnUfhg`HchYba`YggYž`X]Y`]bhYfYggUbhY
 9]bV`]W`Y`]b`gY]bY`Z]bUbn]Y`Y`@U[Y`Vch"

9]b`6`]W`_]b`X]Y`_UbU`]g]YfhY`GhUXh

9]b`k Y]hYfYg[fc»Yg; Y\Y]a`b]g]gh`X]Y`K`]YbYf`? UbU`]gUh]cbž`X]Y
 Xi fW`X]Yb`:]a`8Yf`Xf]hhY`A`Ubb`VYfØ`a`h`k i fXY`"K`]Ybg
 ? UbU`bYhn`YfghfYW`h]g]W`ØVYf`&) \$\$`?`]ca`YhYf`i`bX`hfUbgdcfh]Yfh
 VY]`hfcW`YbYa`K`YhYf`Y]bY`\U`VY`A`]`]UfXY`@]hYf`5V`k`UggYf
 hÅ[`]W`"8]YgY`i`bhYf]fX]gW`Y`K`Y`hž`X]Y`Ui`W`U`g`GhUXh`i`bhYf`XYf
 GhUXh`VY`_Ub`bh]`ghž`Y`b`h`k`]W`Y`h`Y`g]W`i`a`%-`\$\$`i`bX`]gh`V]g`\Y`i`hY
 Y]b`gd`Ub`bY`b`XY`g`:]`c`fg`W`i`b[`gZ`Y`X`ZØf`<]ghc`f`_Y`f`i`bX`5f`W`Å`c`c[`Y`b`ž
 X]Y`Y`b[`a`]h`HYffU`L`<]ghc`fm`ni`gUa`a`Y`b`UfVY]hYb`"@Ui`h`HY`Y`"Uh

C`V`Y`g`:]`bi`b`X]Y`a`mghYf]ØgYb`:]`Åb[`Y`i`bhYf`XYf`<c`ZVi`f[`ž`X]Y
 ZUgn]b]YfYbXYb`? UhU`_ca`VYb`XYg`GhYd\UbgXca`g`c`XYf`X]Y`U`hYb
 ? Ub`Å`Y`g]b`X.`K`]Yb`\Uh]j`]Y`ni`V]YhYb`ZØf`U`Y`ž`X]Y`VYfY]h]g]b`X`ž
 Y]bYb`6`]W`_]b`hYf`X]Y`?`i`]ggYb`ni`k`YfZYb`"8]Y`:]`YgW`]W`hY`X]Y`gYf
 GhUXh]gh`h]YZj`YfUb`_Y`fh]b`]`fYb`K`i`fnY`b`i`bX`k`UfhYh`XUfUi`Zž`cb
 bYi`[`]Yf][`Yb`:]`Y]ghYfb`Yf`_i`bXYh`ni`k`YfXYb"

8YhU]`g	
C`fh	K`]Yb`ž`2`ghYffY]W`
E`i`Y`Y`b	<ul style="list-style-type: none"> • k k k "hY`Y"Uh • _i f]Yf"Uh • k k k "[YgW`]W`hY`k`_]`k`]Yb"[`j`"Uh

6Ygi`W`X`Y`b`G]Y`i`bg`Ui`Z.`a`Y]b`!`k`]Yb`"b`Y`h