

H]Yf]gW\ Y`5i gnY]h. `K]Y`@]hh`Y`ȣY
? cV`YbnYf`Ghi X]YfYbXYb`XYb`GhfYgg
b]a a h

Ghi X]YfYbXY`b`?cV`Ybn`[Yb]Y»Yb`Y]bY`h]Yf]gW\ Y`@YfbdUi gY
a]h`@]hh`Y`ȣYž`i a`GhfYgg`UVni VUi Yb`i bX`bYi Y`A ch]j Uh]cb`ni
hUb`_Yb"

Jcb`?ja` : Ui gg

&, "5i [i gh&\$&(ž`\$*. \$\$`i \f

⇒a`@UbXYgV]V`]ch\Y_gnYbhfi a`?cV`Ybn`\UVYb`Ghi X]YfYbXY`Y]bYb
[Ubn`VYgcbXYfYb`5bgUhn`[YZi bXYbž`i a`a]h`XYa`GhfYgg`k`À\fYbX
XYf`DfØZi b[gd\UgY`i a`ni [Y\Yb"<]Yf`_ca`a Yb`b]W\h`bi f`6ØW\Yf
i bX`@Yfba UhYf]U`]Yb`ni a`9]bgUhnž`gcbXYfb`Ui W\`XYf`j]YfVY]b][Y
: fYi bX`@]hh`Y`ȣYž`Y]b`d`AXU[c []gW\Yf`6Y[`Y]h\i bXž`XYf`X]Y
@YfbdUi gYb`YfZfYi`]W\Yf`i bX`Yb`hgdUbbYbXYf`[YghU`hYh`8]YgY
h]Yf]gW\ Y`⇒hYfj Ybh]cb`n]Y`h`XUfUi ZUVž`Y]b`V]ggW\Yb`F`i \Y`]b`XYb
5fVY]hgU`hU[`XYf`Ghi X]YfYbXYb`ni `Vf]b[Yb"

6YgcbXYfg`]b`NY]hYbž`]b`XYbYb`5VgW\`i`ggUfVY]hYb`UbghY\Ybž
Yf`YVYb`j]Y`Y`↑ b[Y`A YbgW\Yb`Y]bY`Ybcfa Y`6Y`Ughi b["6]UbWU
N]YbhY`ž`Y]bY`&) !`À\f][Y`Ghi XYbh]bž`]gh`U`hi Y`a`]h`]\fYf
A UghYfUfVY]h`VYgW\`ÀZh][hi bX`\Uh`g]W\`ZØf`X]Y`h]Yf]gW\ Y`@YfbdUi gY
a]h`@]hh`Y`ȣY`YbhgW\]YXYb"" ⇒W\`k`c`h`Y`Y]bZUW\`a`U`ZØf`&\$`A]bi hYb
XYa`i`b]!GhfYgg`YbhZ]Y\Yb`ž`Yf`_`Àfh`g]Yž`k`À\fYbX`g]Y`XYb`<i`bX
ghfY]W\Y`h`Gc`W\Y`_i`fnYb`DUi`gYb`]a`@YfbYb`_ØbbYb`cZi`K`i`bXYf
k]f`_Ybž`i`a`bYi`Y`9bYf[]Y`i`bX`A`ch]j`Uh]cb`ni`hUb`_Yb"

GhfYggfYXi`_h]cb`Xi`fW\`h]Yf]gW\ Y
; YgY`gW\ UZh

8]Y`≠XY` \]bhYf`X]YgYb`@YfbdUi`gYb`]gh`g]a`dY`.`8]Y`≠bhYfU_h]cb`a`]h
<i`bXYb`_Ubb`Yf`YV`]W`ni`f`GhfYggVYk`Å`h][`i`b[`VY]hfU[`Yb`"
K`]ggYbgW`UZh`]W`Y`Ghi`X]Yb`UVYb`[`YnY][`hž`XUgg`XYf`?`cbhU_h`ni
H]YfYb`g]W`d`cg]h]j`Ui`ZX]Y`<`YfghY`i`b[`j`cb`<`cfa`cbYb`Ui`gk`]f_hž
X]Y`ZØf`9`bhgdUbbi`b[`i`bX`K`c`VYZ]bXYb`j`YfUbhk`cfh]W`g]bX`"6Y]
@]hh`Y`∞Y`U`bXY`h`Yg`g]W`i`a`Y]bYb`gdYn]Y`Ui`g[`YV]`XYhYb`<i`bXž
XYggYb`VYfi` \][`YbXY`DfÅgYbn`j`]Y`Yb`Ghi`X]YfYbXYb`Y]b`;`YZØ`j`cb
G]W`Yf`Y]h`i`bX`;`YVcf[`Yb`Y]h]j`Yfa`]hh`Y`h`"

@]hh`Y`∞Y`ž`Y]b`A`]gW`b[`g`i`bXž`U`h]g]W`U`g`k`U`f`Y`g
HU`Y`bhgW`a`Ub`_Yf`Yfk`]YgYbž`k`Ybb`Yg`XUfi`a`[`Y`hž`X]Y
5ha`cgd`ÅfY`b`XYf`6]V`]ch`Y`_`ni`c`W`Yfb`"K`Å`fYbX`XYf
&\$!a`]bØh][`Yb`?`i`gW`Y`ghi`bXYb`UVYb`X]Y`Ghi`X]YfYbXYb`b]W`h`bi`f
X]Y`;`Y`Y[`Yb`Y]hž`g]W`a`]h`XYa`<i`bX`ni`VYgW`ÅZh][`Yb`ž`gcbXYfb
Ui`W`gW`]W`hk`Y[`Y]ba`U`Xi`fW`ni`Uha`Yb`i`bX`XYb`?`cdZ
ZfY]ni`VY`_ca`a`Yb`"

8]Y`FYU_h]cbYb`XYf`HY]`bY`a`Yf`g]bX`Xi`fW`k`Y[`d`cg]h]j`"≠W`UVY
XUg`;`YZØ`ž`XUgg`]W`XUbUW`j`]Y`_`cbnYbhf]YfhYf`V]b`ž`gU[`h`6]UbWU
i`bX`Yf[`Åbnh`9`g]gh`i`b[`Ui`V]W`ž`k`]Y`j`]Y`VYggYf`]W`a`]W`ZØ`Y
bUW`bi`f`_i`fnYf`NY]h`a`]h`XYa`<i`bX`"Gc`W`Y`?`i`fngYgg]cb`g`g]bX
b]W`h`bi`f`Y]bY`k`]`_ca`a`YbY`5V`k`YW`g`i`b[`ž`g]Y`ZØfXYfb`Ui`W`XUg
U`[`Ya`Y]bY`K`c`VYZ]bXYb`XYf`Ghi`X]YfYbXYb`"GhfYggž`XYf`Xi`fW
XUg`]bhYbg]j`Y`@YfbYb`YbhghY`hž`_Ubb`gc`Yhk`Ug[`Ya`]XYfh`k`YfXYb`"

:`U]f`XYf`6]V`]ch`Y`_`[`YdUUfh`a`]h`h]Yf]gW`Ya
Gi`ddcfh`

8Ug`?`cbnYdh]gh`Y]bZUW`ž`UVYf`YZZY_h]j`"K`]W`h][`]gh`X]Y
6Yei`Ya`_]W`_Y]h`XYf`I`a`[`YVi`b[`ž]b`XYf`X]YgY`@YfbdUi`gYb
ghUhhZ]bXYb`"a`@6N`?`cV`Ybnž`Y]bYa`C`fhž`XYf`ZØf`gY]bY`fi` \][`Y
5ha`cgd`ÅfY`VY`_Ubbh]ghž`_ØbbYb`X]Y`HY]`bY`a`Yf`]b`X]Y
YbhgdUbbYbXY`;`YgY`gW`UZh]j`cb`@]hh`Y`∞Y`Y]bhUi`W`Yb`"A`Ub
_ØbbhY`ZUgh`gU[`Yb`ž`X]Y`?`ca`V]bUh]cb`Ui`g`XYa`hmd]gW`Yb
6]V`]ch`Y`_gZU]f`i`bX`XYf`k`Y]W`Yb`;`Y`b`UgY`]gh`XUg`d`YfZY`_hY
F`YnYdh][`Y[`Yb`DfØZ]b[`gghfYgg`"

B UhØf`]Wk `Uh`YXYg`H]Yf`gY]bY`Y][YbY`DYfgØb`]Wk`_Y]hž`i bX`Ui Wk
@]hY`æY`ØVYfnYi [h`Xi fWk`gY]bY`gUbZHy`5fh`i bX`gY]bYb` [YgY``][Yb
7`UfU`_hYf``8]Y`<i bXYVYg]hNYf]bž`X]Y`X]YgYb`GYfj`]Wk`UbV]YhYhž
Yf`Ai hYfh` 8]Y`K`]f`_i b [`j cb`<i bXYb`Ui Z`XYb`A YbgWkYb`]gh
ZUgn]b]YfYbXž`VYgcbXYfg`]b`GhfYggg]hi Uh]cbYb`"G]Y`Y`ZYbž
GdUbbi b [Yb`UVni VUi Yb`i bX`Y]b` ; YZØ`X`Yf`Fi`Y`ni`ZØfXYfb`"

8]YgY`h]Yf [YghØhnhY`5`_hj`]h`h`h`nY][h`Y]ba`U`a`Y`fž`k`]Y`k`]Wk`h][`Yg
]ghž`Ui Wk`]b`XYf`@Yfb`d`UgY`Ui Z`XUg`Y][YbY`K`c`V`Y`Z]bXYb`ni
UWk`hYb`i bX`K`Y [Y`ni`Z]bXYbž`i a`X]Y`XUa`]h`j`YfVi bXYbY
5bgdUbbi b [`ni`j`Yff]b [Yfb``8]Y`J`YfV]bXi b [`j cb`6`]Xi b [`i bX
h]Yf]gWk`Yf`I`bhYfghØhni b [`gWk`Y]bh`Y]b`_`i [Yf`GWk`f]hh`ni`gY]bž`i a
XYb`<YfUi`gZcfXYfi b [Yb`XYg`I`b]YVYbg`VYggYf`ni`VY [Y [bYb`"

9]b`bYi`Yf`HfYbX`ZØf`Ghi`X]YfYbXY

8]Y`DfUi`]g`XYf`h]Yf [YghØhnhYb`æ`hYfj`Ybh]cb`Yf`Ub [h`]b`j`]Y`Yb
6`]Xi b [gY]bf]Wk`hi b [Yb`k`Y`hk`Y]h`ni bY`a`YbX`5i`Za`Yf`_gUa`_Y]h`
8Ug`@6N`?cV`Ybn`gYmh`a`]h`XYf`9]bZØ`fi b [`gc`Wk`Yf`@Yfb`d`Ui`gYb
Y]b`NY]Wk`Yb`i bX`nY][hž`k`]Y`k`]Wk`h][`Yg`]ghž`_fYUh]j`Yb`A`Yh`cXYb`ni`f
GhfYggVYk`Å`h][i b [`D`Uhn`ni` [YVYbž`X]Y`XYb`Ghi`X]YfYbXYb`Y]bYb
 [Yk`]ggYb`5i`g [`Y]Wk`V]YhYb`"Dfc [fUa`a`di`b`_hY`k`]Y`X]YgYf`_ØbbhYb
g]Wk`U`g`J`c`fV]`X`ZØf`UbXYfY`æ`gh]hi`h]cbYb`XUfghY`Ybž`X]Y`Å`b`]Wk`Y
6YXØfZb]ggY`i`bhYf`]`fYb`@Yfb`YbXYb`ZYghghY`Yb`"

K`]f`_i`b [`j`cb`H]YfYb`Ui`Z`X]Y`a`Yb`hU`Y ;`Ygi`bX`Y]h

8]Y`J`c`fhY]`Y`j`cb`H]YfYbž`]bgVYgcbXYfY`j`cb`<i bXYbž`ZØf`X]Y
a`Yb`hU`Y` ;`Ygi`bX`Y]h]g]bX` [i`h`Xc`_i`a`Ybh]Yfh`Ghi`X]Yb`nY][Ybž`XUgg
XYf`?cbhU`_h`ni`H]YfYb`GhfYgg`fYXi`n]YfYbž`XYdfYgg]j`Y`Gma`dhca`Y
`]bXYfb`i bX`XUg`U`` [Ya`Y]bY`K`c`V`Y`Z]bXYb`ghY][Yfb`_Ubb``@Ui`h
Y]bYf`I`bhYfgi`Wk`i b [`XYf`K`Y`hc`f [Ub]gUh]cb`ZØf`H]YfgWk`i`hn
j`YfVf]b [Yb`A`YbgWk`Ybž`X]Y`fY [Y`a`Å`][`NY]h`a`]h`<Ui`gh]YfYb
j`YfVf]b [Ybž`k`Yb][Yf`NY]h`a`]h`Gcf [Yb`i bX`g]bX`Ya`ch]cbU`ghUV]`Yf`"

6YgcbXYfg`]b`c`Wk`ghfYgg][Yb`I`a` [YVi`b [Ybž`k`]Y`VY]gd]Y`gk`Y]gY`"

VY]`Ghi X]YfYbXYbž`_Ubb`X]Y`ϕhYfU_h]cb`a]h`Y]bYa `<i bX`Y]bY
h\YfUdYi h]gWXY`K]f_i b[`YbhZU`hYb""8]Y`_ÖfdYf`]WXY`BÄ\Y`ni
Y]bYa `H]Yf`gh]a i`Yfh`X]Y`5i ggWØhhi b[`j cb`<cfa cbYb`k]Y
C l mhcW]bž`k Ug`ZØf`Y]b` ; YZØ\`j cb` ; YVcf[Yb\Y]hi bX`9bhgdUbbi b[
gcf[h``8]YgYg`<cfa cb`k]f_h`b]W\h`bi f`GhfYgg`fYXi n]YfYbXž
gcbXYfb`ZØfXYfh`Ui W\`gcn]U`Y`6]bXi b[Yb"

Dfc [fUa a]bZcfa Uh]cbYb`XYg`@6N`? cV`Ybn

8 Ug`@UbXYgV]V`]ch\Y_gnYbhfi a`]b`?cV`Ybn`\Uh`Yf_Ubbhž`k]Y
k]W\h][`DUi gYb`i bX`9bhgdUbbi b[`ZØf`X]Y`Ghi X]YfYbXYb`g]bX""8]Y
ϕ]h]Uh]j Yž`a]h`Y]bYa `dÄXU[c[]gWXYb`6Y[`Y]h\i bX`k]Y`@]hh`Y`ϕY`ni
UfVY]hYbž`]gh`HY`]`Y]bYg`i a ZUggYbXYfYb`5bgUhmYg`ni f` : ÖfXYfi b[
XYf`a YbhU`Yb` ; Ygi bX\Y]h``BYVYb`XYb`@YfbdUi gYb`V]YhYh`XUg`@6N
Ui W`K cf_g\cdg`i bX`GYa]bUfY`ni `GhfYggVYk Ä`h][i b[`i bX
NY]hå UbU[Ya Ybh`Ub""8]Y`J YfUbghU`hi b[Yb`g]bX`ZØf`U`Y
Ghi X]YfYbXYb`cZyb`i bX`gc`Yb`]\bYb`\Y`ZYbž`YZY_h]j YfY`@Yfb!
i bX`9bhgdUbbi b[gghfUhY[]Yb`ni `Ybhk]W_Y`b"

K Y]hYfY`5b[YVchY`ni f`GhfYggVYk Ä`h][i b[

- Mç[U!`i bX`A YX]hUh]cbg_i fgY
- K cf_g\cdg`ni f`J YfVYggYfi b[`j cb`Ghi X]Yba Yh\cXYb
- 6YfUhi b[gUb[YVchY`ZØf`dgmW]gWXY` ; Ygi bX\Y]h

8]YgY`_ca V]b]YfhYb`A U» bU\`a Yb`g]bX`XUfUi ZUi g[Y`Y[hž`Y]bY
[Ygi bXY`6U`UbW`nk]gWXYb`Ghi X]i a` i bX` : fY]nY]h`ni `ZØfXYfbž`k Ug
VYgcbXYfg`]b`XYf`ghfYggfY]WXYb`DfØZ b[gnY]h]j cb`6YXYi hi b[`]gh"

8YhU]`g

6Ygi WXYb`G]Y`i bg`Ui Z.`X]Y!bUW f]W\hYb`bYh