

9]bVfi W\`]b` , VUW\!DU`YbVYf[Yf
?cbX]hcfY]. `Dc`]nY]`V]hhYh`i a` <]bk Y]gY`

ϕ` , VUW\!DU`YbVYf[`VfUW\`Y]b`i bVY`UbbhYf`HÅhYf`]b`Y]bY
?cbX]hcfY]`Y]b`i bX`Ybhk YbXYhY`6Uf[Y`X`" <]bk Y]gY`V]hhY`Ub
X]Y`Dc`]nY]`<Y]bgVYf["



, VUW\!DU`YbVYf[ž`8Yi hgW\`UbX`!`9]b`bÅW`h]W\Yf`9]bVfi W\`]b
Y]bY`?cbX]hcfY]`]b` , VUW\!DU`YbVYf[`gcf[h`Z0f`5i ZgY\Yb``ϕ`XYb
Zf0\Yb`Ghi bXYb`XYg`&*""5dfj`&\$&) `XfUb[`Y]b`i bVY`UbbhYf`HÅhYf
0VYf`XYb`<]bhYfY]b[Ub[`Ui ZXYf` : f]YXf]W\!K]`Y`a`!GhfU»Y`]b`XUg
g0»Y` ; YgW`ÅZi`Y]b`"A]h`_f]a]bY`Yf`9bYf[]Y`Xi fW`gi W`hY`Yf`X]Y
F`Ai a` `]W\`_Y]hYb`i bX`Ybhk YbXYhY`XUVY]`6Uf[Y`X`Ui g`XYa
?UggYbVYfY]W\`XYg`J Yf`_Ui ZgfUi a`g"

8]Y`?fY]gdc`]nY]VY\0fXY`<Y]bgVYf[`]gh`bi b`Ui ZXYf`>J X`bUW
<]bk Y]gYb`"8]Y`Dc`]nY]`V]hhYh`i a`gUW`X]Yb`]W\Y`ϕ`Zcfa Uh]cbYbž`X]Y
ni f`5i Z`Åfi b[`XYg`J cfZU`g`Z0\Yb`_0bbhYb`"NYi [Ybž`X]Y`Yhk Ug
VYa Yf`_h`\UVYb`cXYf`<]bk Y]gY[YVYb`_0bbYbž`g]bX`Ui Z[YZcfXYfhž
g]W\`i bhYf`XYf`HY`YZcbbi a`a Yf`\$&() &`-`&\$`\$`ni`a`Y`XYb`cXYf`0VYf

X]Y` ðhYfbYhgY]hY`XYf`Dc`]nY]`Y]bY`B UW f]W h`ni` \]bhYf`UggYb`"K` Yf
 \Uh`X]YgYb`a`i`h][`Yb`F`Ui`V`[`YgY`Yb`3`8]Y`đ[X`Ui`Z`XYb`H`hYf` \Uh
 VY[`cbbYb`°

8YhU]`g	
J`c`f`ZU``	9]bVfi`W
C`f`h	,`VUW`!DU`YbVYf[`ž`8Yi`hgW`UbX

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