

GWX UWX !GYbgUh]cb`]b`F cgyb\Y]a .: UV]Ub
6Äbn][Yf`hf]i a d\]Yfh]a ; A !Hi fb]Yf

→a ; A !Bcfa Ybhi fb]Yf`]b`F cgyb\Y]a `Äa dZhYb
]bhYfbUh]cbU`Y`A Y]ghYf`i a `XYb`H]hY`": UV]Ub`6Äbn][Yf
g]WXYfhY`g]W`XYb`G]Y["5`Y`8YhU]`g`ni a `gdUbbYbXYb
Hi fb]Yf`\]Yf`

→a `5i [i gh!\$&(<`ZUbX`ja `<Ö\YbghY][Yf!GUU`]b`F cgyb\Y]a `Y]b
gdUbbYbXYg; A !Bcfa Ybhi fb]Yf`ghUhhž`XUg`j ca `6UmYf]gWXYb
GWXUWVi bX`cf[Ub]g]Yfh`k i fXY"8]Y`5fYbU`k i fXY`ni a `GWXUi d`Uhn
]bhYbg]j Yf`K Yh_Äa dZYž`VY]`XYbYb`Gd]Y`Yf`Ui`g`j YfgW]YXYbYb
@ÄbXYfb`i a `X]Y`9fZØ`i b[`XYf`; A !Bcfa `fl`fc»a Y]ghYf!Bcfa Ł
_Äa dZhYb" →bg[YgUa`h`bU\`a Yb`nY\`b`Gd]Y`Yf`Ub`X]YgYa `Hi fb]Yf
hY]`ž`XUfi`bhYf`g]YVYb`→bhYfbUh]cbU`Y`A Y]ghYf`fA Ł`gck]Y`XfY]
YfZU\`fYbY`; fc»a Y]ghYf`fl`A Łž`X]Y`U`Yg`XUfUb`gYhnhYbž`X]Y
[YZcfXYfhYb`g]YVYb`Di b_hY`ni`YffY]WXYb"

8Yf`GWX`k`Y]nYf`Gd]Y`Yf`: UV]Ub`6Äbn][Yf`k`Uf`Ua`9bXY`XYf`[fc»Y
; Yk`]bbYf`XYg`Hi`fb]Yf`g"9f`VYY]bXfi`W_hY`a`]h`Y]bYf`ghUf`_Yb
@Y]ghi`b[`i`bX`g]WXYfhY`g]W`a`]h]bg[YgUa`h`) ž`Di`b_hYb`XYb
Hi`fb]Yf`g]Y["→`XYf`YhnhYb`Fi`bXY`VYg]Y[hY`Yf`XYb`: fUbn`cgYb
: `cfmUb`9i [YbYž`k`Ug`]\`a`XYb`Yb`hgWXY]XYbXYb`J`cfhY]
j`YfgW`UZZhY" <`]bhYf[fi`bX`XUni`]ghž`XUgg`ni`f`9f`Ub[i`b[`XYg; A !
H]hY`g`XfY]`gc`WXYf`Bcfa`Yb`bchk`YbX][`g]bXž`i`bX`YXYf`Di`b_h
nÄ`h"6Äbn][Yf`j`YfhY]X][hY`gY]bY: Ø\fi`b[`V]g`ni`f`YhnhYb`DUfh]Y"
A`h]`\`a`Ui`ZXYb`A`YXU]`Yb`fÄb[Yb`k`Uf`5`Yi`Ub`XYf`?`fUghYj`j`cb`XYf
G; `Gc`]b[Ybž`XYf`hf`cm`gY]bYf`6Ya`Ø\i`b[Yb`]b`XYf`YhnhYb`Fi`bXY
[Y[Yb`J`U`Ybh]b`6i`W_Y`g`Y]b`FYa`]g`Yfn]Y`hY`i`bX`gca`]higY]bY
<cZbi`b[Yb`Ui`ZY]bY`k`Y]hYfY; A !Bcfa`VY[fUVYb`a`i`gghY"

8Yi`hgWXY`i`bX`]bhYfbUh]cbU`Y`HU`Yb`hY

8 Ug'Hi fb]Yf'nc['HY]'bY\`a Yf'Ui g'BU\`i bX': Yfb'Ubž'XUfi bhYf'Ui W
Gd]Y`Yf'Ui g'8Yi hgW\`UbXž': fUb_fY]W\`i bX'XYf'GWk Y]n"6Äbn][Yf
i bX'?fUghYj`k UfYb`b]W\`h'X]Y`Y]bn][Yb'ghUf_Yb'Gd]Y`Yf']b`X]YgYa
: Y`X"8Yf'[Ycf[]gW\`Y'; A`A`_]`Y]'?Y_Y']XnY'i bX': `cfmUb`9i [YbY
fY]\`hY'g]W\`a`]h`Yk Y]g`Z0bZDi b_hYb`\`]bhYf'XYb`VY]XYb`Z0\`fYbXYb
Gd]Y`Yfb`Y]b`i bX`nY][hYb`VYbZU`g`VYY]bXfi W_YbXY`@Y]ghi b[Yb"
8]Y`ghUf_Y`?cb_i ffYbn`i bX`X]Y`Yf`YgYbY`6YgYhni b[`a UW\`hYb`XUg
Hi fb]Yf'ni`Y]bYa`VYgcbXYfYb`9fY][b]g`]b`XYf'GW UW\`gnYbY"

⇒ Y]bYf'UbXYfYb`?UhY[cf]Yž`XYa`A`!Hi fb]Yfž`gd]Y`hY`@Ufg
; c`XVYW_ž`XYf`VUmYf]gW\`Y`J]nYa`Y]ghYfž`j`cb`5bZUb[`Ub`Ub`XYf
Gd]hY`a`]h`9f`V`]YV`i b[YgW\`U[Yb`i bX`YffUb[`a`]h`*ž`]Di b_hYb
XYb`YfghYb`D`Uhm"8]Yg`VYgW\`YfhY`]a`b]W\`h`bi`f`XYb`H]hY`XYg
Hi fb]Yfg]Y[Yfgž`gcbXYfb`Ui W\`Y]bY`A`!Bcfa`ž`k Ug`Z0f`YXYb
Ua`V]h]cb]YfhYb`GW UW\`gd]Y`Yf`Y]bY`VYXYi hYbXY`9ffi b[YbgW\`UZh
XUfghY`h`9]b`VYa`Yf_Ybgk YfhYf`A`ca`Ybh`k`Uf`X]Y`6Y[Y[bi b[
nk`]gW\`Yb`; c`XVYW_`i bX`XYf`↑ b[Yb`Gd]Y`Yf]b`@YbU`; Ycf[YgW
Ui g`6Yfbž`X]Y`VYbZU`g`]a`F`YbbYb`i`a`X]Y`Bcfa`k`Ufž`YXcW\`
]\`fYf`7\`UbW\`b]W\`h`Ui`gbi`hYb`_cbbhY"

J YfY]bh`Xi`fW\`XUg`GW UW\`gd]Y`

8]Y`5ha`cgd`\`ÄfY`]a`<`0\`YbghY][Yf!GUU`k`Ä`\fYbX`XYg`[YgUa`hYb
K`YhhVYk`YfVg`k`Uf`j`cb`Y]bYf`gd0fVUfYb`5bgdUbbi b[`i`YdfÄ[`h`
9]bY`XYf`VYgcbXYfg`\`Yfj`cfni`\`VYbXYb`9][YbgW\`UZhYb`XYg
Hi fb]Yfg`k`Uf`XYf`F`YgdY`_hž`XYb`X]Y`Gd]Y`Yf`hf`ch`XYg`]bhYbg]j`Yb
K`Yhh_Ua`dZYg`Z0fY]bUbXYf`nY][hYb"8Ug`GW UW\`gd]Y`]gh`b]W\`h`bi`f
Y]b`5i`gXfi W_`ghfUhY[]gW\`Yb`8Yb_Ybgž`gcbXYfb`Ui W\`Y]bY
A`0[`]W\`_Y]hž`; fYbnYb`ni`0VYfgW\`fY]hYb`i bX`Gd]Y`Yf'Ui g
i bhYfgW\`YX`]W\`Yb`<]bhYf[f0bXYb`ni`gUa`a`Ybni`Vf]b[Yb"

8]Y`@Y]ghi b[Yb`gck`c`\`Ui`Z`XYa`6fYh`U`g`Ui W\`X]Y`J`Yf`Y]\`i b[`XYf
H]hY`nY][Ybž`k`]Y`k`]W\`h][`X]YgY`5fhj`cb`Hi fb]YfYb`Z0f`X]Y
: 0fXYfi b[`XYg`GW UW\`gd]Y`g`]b`j`YfgW\`]YXYbYb`F`Y[]cbYb`]gh`G]Y
V]YhYb`c`_Yb`i bX`fY[]cbU`Yb`HU`YbhYb`X]Y`A`0[`]W\`_Y]hž`g]W\`a`]h
XYb`6YghYb`XYf`K`Y`h`ni`a`YggYb"

GW UW\`U`g`Gdcfh`XYf`8Yb_Yf

CVk c\`Yg`]b`FcgYb\Y]a`_Y]bY`bYi`Yb` ; A !Bcfa Yb`ni`j`Yfa`Y`XYb
[UVžnY][h`XUg`Hi`fb]Yf`XYb`bcW`XUg`\c\Y`B]j`YUi`i`bX`X]Y
@Y]XYbgW`UZh`X]Y`XYb`GW`UW`gdcfhi`a`[YVYb`"8]Y`Gd]Y`Yf`[UVYb
U`Ygž`i`a`g]W`Y]bYb`D`Uhn`]b`XYf`9`]hY`XYg`GW`UW`g`ni`Yf`_Aa`dZb`
8]Y`<`YfUi`gZcfXYfi`b[ž`X]Y`k`À`fYbX`XYf`Ub[Yb`DUfh]Ybž`Y]b][Y
XUj`cb`XUi`YfhYb`a`Y`f`U`g`gYW`g`Ghi`bXYbž`Yf`YVh`k`i`fXYž`gd]Y[Y`h
X]Y`H]YZ`i`bX`h`hYbg]h`Ah`k`]XYfž`X]Y`]a`GW`UW`gd]Y`cZhj`YfVcf[Yb
]gh`

: Øf`X]Y`HY]`bY\`a`Yf`]gh`XUg` ; A !Bcfa Yb`hi`fb]Yf`b]W`h`bi`f`Y]b
K`YhhVYk`YfVž`gcbXYfb`Ui`W`Y]b`Gd]i`b[Vfyh`ZØf`ni`_ØbZh][Y
9fZc`[Y`i`bX`X]Y`9ffY]W`i`b[`]\`fYf`_Uff]YfYhYW`b]gW`Yb`N]Y`Y`]a
GW`UW`gdcfh`A`]h`gc`W`Yb`J`YfUbghU`hi`b[Yb`k`]fX`X]Y
GW`UW`[Ya`Y]bgW`UZh`[Ygh`_`h`i`bX`bYi`Y`HU`Yb`hY`k`YfXYb
[YZØfXYfhž`gcXUgg`XYf`GW`UW`gdcfh`k`Y]hYf\`b`Y]bYb`ZYghYb`D`Uhn
]b`XYf`Gdcfh`UbXgW`UZh`\`Uh`

8Ug` ; A !Bcfa Yb`hi`fb]Yf`]b`FcgYb\Y]a`]gh`HY]`Y]bYf`[fØ»`YfYb
HfUX]h]cb`j`cb`GW`UW`hi`fb]YfYb`]b`8Yi`hgW`UbXž`X]Y`VYgcbXYfY
HU`Yb`hY`i`bX`YhUV`]YfhY`Gd]Y`Yf`ni`gUa`a`YbVf]b[h`8]YgY
J`YfUbghU`hi`b[Yb`X]YbYb`b]W`h`bi`f`XYf` : ØfXYfi`b[`XYg`GW`UW`gž
gcbXYfb`Ui`W`XYf`GW`UZZi`b[`Y]bYg`K`YhhVYk`YfVgi`a`ZY`Xgž`]b`XYa
Ub[Y\YbXY` ; fc»`a`Y]ghYf`]fY` : À\][_Y]hYb`i`bhYf`6Yk`Y]g`ghY`Yb
_ØbbYb`"Hi`fb]YfY`X]YgYf`5fh`Z]bXYb`fY[Y`a`À»][`]b`j`YfgW`]YXYbYb
Gh`XhYb`i`bX`@`AbXYfb`ghUhh`i`bX`V]YhYb`XYb`Gd]Y`Yfb`X]Y
A`Ø[`]W`_Y]hž`k`Yfhj`c`Y`9fZU\fi`b[`ni`gUa`a`Y`b`i`bX`]fY`9@C!NU\`
ni`j`YfVYggYfb`

6YXYi`hi`b[`j`cb` ; A`!`i`bX`=A`!Bcfa`Yb

8]Y`9fZØ`i`b[`j`cb` ; fc»`a`Y]ghYf!`fi`A`Ł`i`bX`h`hYfbUh]cbU`Yf`A`Y]ghYf!
Bcfa`Yb`f`A`Ł`]gh`Yb`hgW`Y]XYbX`ZØf`X]Y`?`Uff]YfY`Y]bYg
GW`UW`gd]Y`Yfg`"i`a`XYb`H]hY`Y]bYg` ; fc»`a`Y]ghYfg`ni`Yf`Ub[Ybž
a`i`gg`Y]b`Gd]Y`Yf`XfY] ; A !Bcfa Yb`Yfn]Y`Yb`i`bX`Y]bY`9@C!NU\`
j`cb`a`]bXYghYbg`&) \$\$`YffY]W`Yb`" : Øf`X]Y`=A`!Bcfa`g]bX`YVYbZU`g
XfY]`Bcfa`Ybž`YXcW`]b`k`Yb][Yf`Ubgd]i`W`gj`c`Yb`Hi`fb]YfYbž
YfZcfXYf`]W`"8]YgY`Bcfa`Yb`k`YfXYb`]b`Y]bYa`]b`hYfbUh]cbU`Yb
?`cb`hYi`h`UbYf`_Ub`bž`k`Ug`VYXYi`hYhž`XUgg`g]Y`b]W`h`bi`f`]b

8 Yi hgWk`UbXž'gcbXYfb`k Y`hk Y]h; Ø`h][_Y]h`UVYb"8 Ug`a UWk h
GWk UWk`ni`Y]bYa`gdUbbYbXYb`Gdcfhž`XYf`]bhYfbUh]cbU`Y
6Y[Y[bi b[Yb`ZØfXYfh`i bX`_i`hi`fY`Yb`5i`ghUi`gWk`Yfa`Ø[`]Wk`h"

5_hi`Y`Y`HfYbXg`]a`GWk UWk

≠`XYb`Ymhyb`≠\fYb`Uhg]Wk`XUg`GWk UWk`gd]Y`Xi`fWk`gc`n]U`Y
A`YX]Yb`i`bX`GhfYUa`]b[!D`UhhZcfa`Yb`ghUf`_j`YfvfY]hYh"Hi`fb]YfY
k`YfXYb`cZhi`j`Y`ØVYfhfU[Ybž`k`Ug`Y]bY`VfY]hYfY`Ni`gWk`Ui`YfgWk`UZh
Ubn]Y`hi`bX`XUg`≠hYfYggY`Ub`GWk UWk`VY]`↑`b[Yb`@Yi`hYb`Yf`Ø`h"
8]YgY`9bhk`]W`_i`b[Yb`Yfa`Ø[`]Wk`Yb`Gd]Y`Yfb`Y]bY`[fØ»`YfY
G]Wk`hVUf`_Y]h`i`bX`7`UbWk`b`Ui`ZGdc`b`gcfYb`i`bX`I`bhYfghØ`hni`b["
;`Y]Wk`nY]h][`ZØ`fYb`g]Y`XUni`ž`XUgg`Hi`fb]Yf`gmghYa`Y`_cb]bi`]Yf`]Wk
Ub[YdUggh`k`YfXYbž`i`a`XYb`5bZc`fXYfi`b[Yb`i`bX`9fk`Ufhi`b[Yb`XYg
Di`V`_i`a`g[YfYWk`h`ni`k`YfXYb"

< YfUi`gZcfXYfi`b[Yb`i`bX`7`UbWk`b

8]Y`J`YfZc`[i`b[`Y]bYg`GWk UWk`h]hY`g`k`]Y`XYg`; A`!`cXYf`≠A`!H]hY`g`]gh
a`h`Yf`YV`]Wk`Yb`< YfUi`gZcfXYfi`b[Yb`j`YfVi`bXYb"GD]Y`Yf`a`ØggYb
b]Wk`h`bi`f`]bhYbg]j`hfU]b]YfYb`i`bX`]fY`GhfUhY[]Yb`ghAbX][
j`YfvYggYfbž`gcbXYfb`Ui`Wk`Ub`Y]bYf`J`]Y`nU`_`j`cb`Hi`fb]YfYb
hY]`bY`a`Ybž`cZhi`bhYf`Z]bUbn]Y`Yb`i`bX`nY]h`]Wk`Yb
6YgWk`fAb`_i`b[Yb`"8Yb`bcWk`Yf[YVYb`g]Wk`Xi`fWk`gc`Wk`Y
Hi`fbYf`YVb]ggY`Ui`Wk`7`UbWk`b`ni`f`J`YfbYhni`b[`a`h`UbXYfYb
Gd]Y`Yfb`i`bX`ni`f`J`Yfh]YZ]`b[`XYg`GWk UWk`j`YfghAbXb]ggYg"≠
F`cgYb`Y]a`_`ØbbhY`X]Y`ZUa`]`ÅfY`5ha`cgd`ÅfY`XYf`Hi`fb]YfY`i`bX
X]Y`Yb[Y;`Ya`Y]bgWk`UZh`i`bhYf`XYb`Gd]Y`Yfb`i`bX`HfU]bYfb`XUni
VY]hfU[Ybž`XUg`J`YfhfUi`Yb`i`bX`X]Y`I`bhYfghØ`hni`b[`ni`ZØfXYfbž`X]Y
b`chk`YbX][`g]bXž`i`a`gc`Wk`Y`< Ø`Yb`ni`YffY]Wk`Yb"

Ni`gUa`a`YbZUggYbX`nY][Yb`J`YfUbghU`hi`b[Yb`k`]Y`XUg`; A`!
B`cfa`Yb`hi`fb]Yf`]b`F`cgYb`Y]a`X]Y`ZYggY`bXY`8`mbUa`_]`XYg
GWk UWk`g`i`bX`XUg`9b[U[Ya`Yb`h`U`Yf`6YhY]][hYbž`X]Y`Y]bYb
Xfc`YbXYb`F`ØW`_U]b[`XYg`GWk UWk`gdc`fhg`j`Yf`]bXYfb`k`c`Yb`"8]Y
GdYn]U`]g]Yfi`b[`Ui`Z`X]YgY`B`cfa`Yb`ghÅf`_h`X]Y`F`Y`Y`j`Ubn`XYg
GWk UWk`gd]Y`g`i`bX`XYggYb`dfc`ZYgg]cbY`Yb`GhUhi`g`]bbYf`U`V`XYf
]bhYfbUh]cbU`Yb`Gdc`fh[Ya`Y]bgWk`UZh"

8YhU]g

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