

9fZc` [fY]W\ Yf`Dc`]nY]!9]bgUhn.
8i fW\ gi W\ i b [Yb`]b`5UW\ Yb`i bX
< Yfnc [YbfUh\

8i fW\ gi W\ i b [Yb`i bX` : YghbU\ a Yb`]b`5UW\ Yb`i Dc`]nY]
Yfa]hhY`h` [Y [Yb`H\hYf [fi ddY`Z0f`9]bVf0W\ Y`i bX
8fc [Yb\UbXY`"

5UW\ Yb#< Yfnc [YbfUh\` `<Yi hY`k Uf`Y]b`Xi fW\ Ui g
VYa Yf_Ybgk YfhYf`HU [`Z0f`X]Y`Dc`]nY]`5UW\ Ybž`U`g`Y]bY
i a ZUggYbXY`8i fW\ gi W\ i b [gU_h]cb`ghUhhZUbXž`X]Y`XUg`5i [Yba Yf_
Ui ZY]bY`a i ha U»`]W\`cf [Ub]g]YfhY` ; fi ddY`j cb`?fa]bY`Yb`Yb_hY`"
8]YgY` ; fi ddY`ghY`h`]a`J YfXUW\hž`0VYf`Y]bYb``Àb [YfYb`NY]hfUi a
\]bk Y [`Y]b`BYhmk Yf`_Z0f`9][Ybhi a gXY`_hY`i bX`8fc [YbXY`_hY`]b
XYf`FY []cb`YhUV`]Yfh`ni` \UVYb`"5a`&+"5i [i gh&\$&(
Xi fW\ gi W\ hYb`X]Y`6YUa hYb`]bg [YgUa`hinY`b`CV`Y`_hYž`XUj cb`bYi b
]b`5UW\ Yb`i bX`Y]bYg`]b`< Yfnc [YbfUh\`"

⇒ F U\ a Yb`X]YgYf` [fc» Ub [Y`Y [hYb`CdYfUh]cb`_cbbhYb`X]Y
9fa]hhYf`A U» bU\ a Yb` [Y [Yb`j]Yf`J YfX\W\h] [Y`Yf [fY]ZYbž`X]Y
ni j cf`VYfY]hg`a]h`< UZhVYZ\`Yb`VY`Y [h`k i fXYb`"9g`]gh
cZZYbg]W\h`]W\ž`XUgg`X]Y`Dc`]nY]`]b`]\fYf`J cf [Y\Ybgk Y]gY` [i h
j cfVYfY]hYh`k Uf`/X]Y`i a ZUb [fY]W\ Yb`8i fW\ gi W\ i b [Yb`gc`hYb
b]W\h`bi f`Y]bYb`GW\`U [` [Y [Yb`X]Y`H\hYf [fi ddY`XUfghY`Ybž
gcbXYfb`Ui W\`k]W\h] [Y`6Yk Y]gY`g]W\ Yfbž`X]Y`Z0f`X]Y`k Y]hYfYb
9fa]h`i b [Yb`j cb`6YXYi hi b [`gY]b`_0bbhYb`"

6Yk Y]ga]hhY`i bX` : YghbU\ a Yb

6Y]`XYb`8i fW\ gi W\ i b [Yb`ghY`hYb`X]Y`9]bgUhn_f\ZhY`Y]bY`J]Y`nU\`
j cb`6Yk Y]ga]hhY`b`g]W\ Yf`"8Uni` [Y\0fhYb`6Uf [Y`Xž`8fc [Ybž
A cV]`hY`YZcbY`i bX` : U\ff\AXYfž`gck]Y`X]j YfgY`Y`Y`_hfc b]gW\ Y

; YfÅhYž'X]Y'cZZYbVUF'Ui g'ZfØ\YfYb'9]bVfi W\gX]YVghÅ\`Yb
ghUa a Yb"8Yf'9]bgUhn`Y]hYfž?`f]a]bU`X]fY_hcf'8Ub]Y`
F UXYfa UW\Yfž'Åi » YfhY'gY]bY'Ni Zf]YXYb\Y]h'ØVYf'XYb'9fZc`[`XYf
5_h]cb.` 8]Y'9fa]hh'i b[gUfVY]h'\Uh'g]W\`Ui g[YnU\`h"8Ub_`XYf
dfcZYgg]cbY`Yb'Ni gUa a YbUfVY]hj`cb`K UW\X]Ybghi bX
?f]a]bU`dc`nY]`_cbbhYb`k]f`XYb`J YfXUW\h'[Y[Yb`Y]bY`[fØ» YfY
; fi ddY`i bhYfa Ui Yfb`i bX`i a ZUb[fY]W\Y`_f]a]bY`Y'5_h]j]hÅhYb
Ui ZXYW_Yb" `8]YgY'5fhj`cb`[Ya Y]bgW\UZh]W\Yf'Dc`nY]UfVY]h'\YVh
X]Y'6YXYi hi b[`XYf'Ni gUa a YbUfVY]h`nk]gW\Yb`j YfgW\]YXYbYb
5VhY]i b[Yb`\Yfj cfž'i a `XUg`J YfVfYW\Yb`YZZY_h]j `ni `VY_Åa dZYb"

8]Y'9f_Ybhb]ggY`i bX`bZcfa Uh]cbYbž`X]Y`k Å\`fYbX`XYf
8i fW\gi W\i b[Yb`[Yk cbbYb`k i fXYbž`k YfXYb`bi b`[Ybi mhž'i a
X]Y'9fa]hh'i b[Yb`[Y[Yb`X]Y`HÅhYf[fi ddY`Zcfmi ZØ\`fYb"8]YgY
; fi ddY`k]fX`b]W\h`bi f`j YfXÅW\h][hž'9][Ybhi a gXY`_hY`Ui g[YZØ\`fh
ni `UVYbž`gcbXYfb`Ui W\ž`ja `8fc[Yb\UbXY`U_h]j `ni `gY]b"
Ni gÅh`]W\Y'9fa]hh'i b[Yb`g]bX`VYfY]hg]b`D`Ubi b[ž'i a `X]Y
[YZUgghYb`J YfXÅW\h][Yb`bcW\`k Y]hYf`ni `VY`UghYb`i bX`i a
a Ø[`]W\Y`k Y]hYfY`HUhYb`bUW\ni k Y]gYb"

8]Y`F c`Y`XYf'9fa]hh'i b[g[fi ddY'9; !6]_Y

8Yf`\Yi h][Y'9]bgUhn`]gh`XUg'9f[YVb]g`XYf`]bhYbg]j Yb'5fVY]h`XYf
gc[YbUbbhYb'9fa]hh'i b[g[fi ddY'9; !6]_Y`XYf'?f]a]bU`dc`nY]
5UW\Ybž`X]Y`g]W\`gdYn]Y`a]h'8Y`_hYb`ja `6YfY]W\`XYg': U\ffUX!
i bX'9][Ybhi a gX]YVghU\`g`VYgW\ÅZh][h`'9g`]gh`VY`Ubbhž`XUgg
gc`W\Y`gdYn]U`]g]YfhYb`; fi ddYb'ØVYf`k Yfhj c`Y`bZcfa Uh]cbYb
j YfZØ[Yb`i bX`X]Y'9fa]hh'Yf`]b`XYf`@U[Y`g]bXž`h]YZ[fY]ZYbXY
Ni gUa a Yb\Åb[Y`]b`XYf'?f]a]bU`]hÅh`ni `Yf_Ybbyb"8]Y
?f]a]bU`dc`nY]`\Uh`]b`XYb`YmhYb`A cbUhYb`Y]b][Y': cfhgW\f]hhY`]b
]\fYb'9fa]hh'i b[Yb`[Ya UW\hž`k Ug`gW\`Y»`]W\`ni `X]YgYf
VYXYi hYbXYb'5_h]cb`ZØ\`fhY"

9g`V`Y]Vh`UVni k UfhYbž`k Y`W\Y`k Y]hYfYb'9bhk]W_`i b[Yb`g]W\`Ui g
X]YgYb'8i fW\gi W\i b[Yb`Yf[YVYb`k YfXYb"8Yf'9fZc`[`gc`W\Yf
A U»bU\`a Yb`]gh`c`Zh`Yb`hgW\Y]XYbXž'i a `_f]a]bY`Y`C f[Ub]gUh]cbYb
ni `nYfgW\`U[Yb`i bX`XUg`J YfhfUi Yb`]b`X]Y`G]W\Yf\Y]hgVY\`ØfXYb
k]YXYf\`Yfni ghY`Yb"8]Y'6Øf[Yf]bbYb`i bX'6Øf[Yf`Yfk UfhYb`j`cb

XYf'Dc`nY]žXUgg'g]Y'gc`WXY ; fc»cdYfUh]cbYb`Xi fWZØ\fhž'i a`]\fY ; Ya Y]bgWUZhYb`ni`gWØhnYb`i bX`i a`X]Y`?f]a`]bU`]hÀhgfUhY`ni gYb_Yb"

9]b`6`]W_`]b`X]Y`Ni`_i`bZh

Jcf`XYa`<]bhYf[fi bX`X]YgYf`9fY][b]ggY`k`]fX`XYi`h]WžXUgg`X]Y Dc`nY]`5UWXYb`i bX`X]Y`GhUUhgUbk`U`hgWUZh`g]W`k`Y]hYf\]b`Ui`ZX]Y 6Y_Àa`dZ`b[`j`cb`?f]a`]bU`]hÀh`_c`bnYbhf]YfYb`"9g`]gh`ni`_c`ZYbž XUgg`X]Y`\Yi`h][Yb`8i`fWgi`W`i`b[`Yb`bi`f`XYf`5bZUb[`Y]bYf`FY]\Y j`cb`A`U»bU`a`Yb`g]bXž`X]Y`gck`c`\`X]Y`HÀhYf[fi`ddY`U`g`Ui`W UbXYfY`dchYbn]Y`Y`?f]a`]bY`Y`]b`XYf`FY[`]cb`UVgW`fYW_Yb`k`YfXYb` 8Yf`:`U`i`bhYfghfY]W`h`X]Y`K`]W`h][`_Y]h`dfÀj`Ybh]j`Yf`i`bX`fYU`_h]j`Yf A`U»bU`a`Yb`]b`XYf`?f]a`]bU`]hÀhgVY_Àa`dZ`b[`Y]b`H\Ya`Už`XUg ZØf`X]Y ; YgY`gWUZh`j`cb`]a`a`Yf`[fØ»YfYf`FY`Yj`Ubn`]gh"

9]bV`]W_Y`]b`X]Y`?f]a`]bU`]hÀhg`U[`Y`]b`5UWXYb

8]Y`?f]a`]bU`]hÀhgfUhY`]b`5UWXYb`]gh`]b`XYb`Y`hnhYb`š\`fYb i`bhYfgW]YX`]W`j`Yf`Ui`ZYb`"9]b`g][b]Z_UbhYf`5bgh]Y[`j`cb 9][Ybhi`a`gXY`]_hYbž`]bgVYgcbXYfY`9]bVfØWXYbž`k`i`fXY`]b j`YfgW]YXYbYb`GhUXhhY]Yb`ZYgh[`YghY`h`@Ui`h`XYa`Dc`nY]`]WXYb ?f]a`]bU`]hÀhgVYf]W`h`fD?`GŁ`XYf`Dc`nY]`B`cfXf\Y]b!K`YghZU`Yb`g]bX 9]bVfØWXY`nk`]gWXYb`&\$%-`i`bX`&\$&&`i`a`fi`bX`%)`i`i`[`Ygh]Y[`Yb` 8]YgY`Ni`bU`a`Y`j`YfXYi`h]W`h`X]Y`B`chk`YbX][`_Y]h[`Yn]Y`hYf 9fa`]hhi`b[`Yb`i`bX`dfÀj`Ybh]j`Yf`A`U»bU`a`Ybž`i`a`X]Y`G]WYf\Y]h XYf`6Øf[`Yf`ni`i`[`Yk`À`f`Y]ghYb`i`bX`X]Y`HÀhYf`ni`ØVYfZØ\`fYb"

8]Y`9fa`]hhi`b[`g[fi`ddY`6]_Y`YbhghUbX`]a`?`cbhYi`h`X]YgYf VYgcf[`b]gYffY[`YbXYb`9b`hk`]W_`i`b[`Yb`"G]Y`\`Uh`XYb`5i`ZhU[`ž`XYb HfYbX`ni`9][Ybhi`a`gXY`]_hYbž`X]Y`c`Zi`a`]h`dfc`ZYgg]cbY`Ya Jcf[`Y\`Yb`Ui`g[`Y`ZØ\`fh`k`YfXYbž`ni`i`bhYfgi`WXYb`i`bX`X]Y HÀhYf[fi`ddYb`ni`]XYbh]Z]n]YfYb`"8]Y` ,`VYfk`UW`i`b[`j`cb`HUhc`fhYb i`bX`X]Y`5bU`mgY`j`cb`HÀhYf`dfc`Z]Yb`g]bX`nYbhfU`Y`6YghUbXhY]Y`XYf 9fa`]hhi`b[`gUfVY]h"

8]Y`F`c``Y`XYf` ; Ya Y]bgWUZh`i`bX

DfÄj Ybh]c bga U» bU\ a Yb

8]Y`G]WXYf\Y]hg`U[Y`]b`5UWX Yb`VYhf]Zzh`b]W`h`bi`f`X]Y`Dc`]nY]ž
 gcbXYfb`Ui`W`X]Y` ; Ya`Y]bgW`Uzh`gY`Vgh"² ZYb`h]W`_Y]hgUfVY]h`XYf
 Dc`]nY]`k`]fX`ni`bY`a`YbX`k`]W`h][`Yfž`i`a``6Øf[`Yf`ZØf
 DfÄj Ybh]c bga U» bU\ a Yb`ni`gYbg]V`]g]YfYb" `b`XYb`Y`h`h`Yb`Y`f`Yb
 ZUbXYb`a`Y`f`YfY`b`Zcfa`Uh]cbgj`YfUbghU`hi`b[`Yb`ni`a`H`Ya`U
 9]bVfi`W`gW`i`h`n`ghU`hž`VY]`XYbYb`5bk`c`b`Yf`H]ddg`ni`f
 J`YfVYggYfi`b[`X`Yf`G]WXYf\Y]h`]\`Yf`f`K`c`b`i`b[`Yb`Yf\]Y`h`Yb" `8]YgY
 b`h]Uhj`Yb`nY][`Yb`9fZc`[`ž`XU`nU`f`Y]WXY`6Øf[`Yf`]\`Yf
 G]WXYf\Y]hgj`cf`_`Y`fi`b[`Yb`Yf\`Ö`h`h`UVYb"

8Yf`5i`ghUi`gW`nk`]gW`Yb`Dc`]nY]`i`bX`6Øf[`Yfb`]gh`Yb`hgW`Y]XYbXž
 i`a`_`f]a`]bY`Yb`5`_`h]j`h`h`Yb`ZfØ`nY]h][`Ybh[`Y[`Ybni`k`]f`_`Yb" `@`c`_`U`Y
 BUW`VUfgW`Uzh`g`UW`Yb`i`bX`X]Y`U`_`h]j`Y`HY]`bU\`a`Y`Ub
 GhUX`h`Y]j`YfgUa`a`i`b[`Yb`hfU[`Yb`X`Uni`VY]ž`X`Ug
 G]WXYf\Y]hgVYk`i`gghgY]b`]b`XYf`6Yj`Ö`_`Yfi`b[`ni`gW`ÄfZYb"

F Y`Yj UbhY`GhUh]gh]_Yb`ni`f ? f]a`]bU`h`h`hgVY`_`Ä`a`d`Zi`b`[

Y`f` 9]bVfØWXY`]b`5UWX Yb` 5bgh]Y[`fi` Ł

&\$%-	') \$	
&\$&\$	' +)	+l
&\$&%	(\$ \$	* ž+l
&\$&&	(% \$	&ž) l

8]YgY`8`UhYb`i`bhYfa`Ui`Yfbž`X`Ugg`9]bVfi`W`X]YVgh`Ä`Y`]b`5UWX`Yb
 Y]bY`Yfbgh`UzhY`<`YfUi`gZcfXYfi`b[`X`UfghY`Yb" `8]Yg`a`chj]`Yfh`X]Y
 ?f]a`]bU`dc`]nY]`i`bX`X]Y`6Yj`Ö`_`Yfi`b[`[`Y]WXYfa`U»`Ybž`[`Ya`Y]bgUa
 [`Y[`Yb`X]YgY`9b`k`]W`_`i`b[`Ubni`[`Y`Yb"

Ni`gUa`a`YbUfVY]h`a`]h`UbXYfYb`6Y`ÖfXYb

8]Y`j`cb`XYf`Dc`]nY]`5UWX`Yb`Xi`fW`[`YZØ`fhYb`A`U»`bU\`a`Yb`g]bX`HY]
 Y]bYg`[`f`Ö»`YfYb` ; YgUa`h`_`cbnYdhgž`X`Ug`X]Y`Ni`gUa`a`YbUfVY]h`a`]h
 j`YfgW`]YXYbYb`Y`a`hYfb`i`bX`6Y`ÖfXYb`VY]b`U`h`Y`h" `8`Uni`[`Y`Ö`fh

Ui W\`X]Y`Yb[Y`?ccdYfUh]cb`a]h`XYf`GhUUhgUbK U`hgW\ UZh`X]Y
fYW\h`]W\Y`GW\ f]hY` [Y[Yb`J YfX\W\h][Y`Y]b`Y]hYh`i bX`XYfYb
< UZhVYZY\`Y`VYUbhfU[h`8i fW\`X]Y`F Yggci fW\`bVØbXY`i b[`i bX`XYb
]bhYfX]gn]d`]b\`fYb`5i ghUi gW\`k YfXYb`X]Y`9fa]h`i b[Yb`YZZ]n]YbhYf
i bX`n]Y`[Yf]W\`hYhYf"

Æg[YgUa h`nY][h`X]YgYf` U`ž`k]Y`k]W\`h][`X]Y`_ccfX]b]YfhY
Ni gUa a YbUfVY]hj`cb`Dc`]nY]ž`GhUUhgUbK U`hgW\ UZh`i bX`XYf
N]j]`[YgY`gW\ UZh]ghž`i a` [Y[Yb`?f]a]bU`]h\`hj`cfni [Y\`Yb`i bX`XUg
G]W\`Yf\`Y]hg[YZØ\`X`Yf`6Øf[Yf`ni`gh\`f`_Yb"

8YhU]`g

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