



7 ci fgY`Cj Yfj]Yk

`GHUZZ`7 cbhUW`i8YHU]`g`

`7 cbj Ybcfg`

B Ua Y	9a U]`	5j U]UV]]m	@WU]cb	D\cbY
>]b[`N\Uc]b["n\Uc4 i bgk "YXi "Ui	Hi YgXUm %&.\$\$!% .\$\$	F a &' %8ž F cVYfh K YVghYf	- ' ,) , \$**

GWXcc``7 cbhUW`i`bZcfa Uh]cb

Fcca " %&ž`Yj Y`` `F cVYfhK YVghYf`6i]X]b[

D\cbY. f\$&Ł- ' ,) '(,) *

9a U]: [gUa 4 i bgk "YXi "Ui](#)

K YVg]hY: [\hfdg.#gUa "Ufmg"i bgk "YXi "Ui](#)

H\Y`GWXcc``cZ`hY`5fmg`UbX`A`YX]U`k`ci`X`_]`Y`h`F`YgdYW`v`m5W`bck`YX[`Y`h`Y`HfUX]`h]cbU``7`i`g]cX]Ubgž`h`Y`6YXY[`U`fP`Ybg]b[`hcb`WJa`di`gŁž;`UX][`U`f7`]mUbX`5`f]i`8`Yg][`b`7`Ua`di`gYgŁ`UbX`h`Y`B`[`i`bbUk`U`dYcd`Y`f5i`gfU`]Ub`8`YZ`bVW`:`cfW`5`WUX`Ya`m]b`7`UbVY`ffUŁ`cZ`h`Y`UbX`g`k`Y`fY`YUW`WJa`di`g`c`Z`I`B`G`K`]`g`c`W`h`Y`X`"

7ci fgY'8YHJ`g

7fYX]hDc]bHg`*`

Gi a a UfmicZ\hY'7ci fgY

H\]g`Wci fgY`k]`dfcj]XY`mci `k]h`U`WcbhYa dcfUfmUbX`W]h]W`i bXYfghUbX]b[`cZ\hY`Z bXUa YbhU`WcbW`dhg UbX`dfcW`ggYg`h`Uhi bXYfd]b`di V`]WfY`U]h]cbg`ghfU]h[]Yg`UbX`W]a dU][bg" H\Y`Wci fgY`ZcW`gYg`cb`ghfU]h[]W Wca a i b]W]h]cb`d`Ubb]b[`z`di V`]WfY`U]h]cbg`fYgYUfW`z`h`Y`fc`Y`cZW`h`fY`]b`di V`]WfY`U]h]cbg`z`]ggi Yg`UbX`W]g]g Wca a i b]W]h]cb`z`W`dfcfU]h`gcW]U`fYgdc]bg]V`]m]m]UbX`Yh`]Wg"

7ci fgY`@YUfb]b[`Ci hWca Yg

%` ÆYbh]Zm]U`fUb[Y`cZUddfcUW]Yg`UbX`XYVU]h]g`UVci h`h`Y`b`U]h`fY`z`fc`Y`UbX`j`U`i`Y`cZ`di`V`]WfY`U]h]cbg &" ÆYbh]Zm]UbX`X]gh]b[i]g\`VYh`Y`Yb`ghfU]h[]WUbX`hUW]W`]bg][\hg`]b`h`Y`Wcbh]h]hg`cZ`d`Ubb]b[`UbX`W]a dU][b`XYj`Y`cda`Ybh`' " 5dd`miWca a i b]W]h]cb`UbX`ghfU]h[mWcbW`dhg`hc`W]a dU][b`d`Ubb]b[`UbX`dfYdUfY`di V`]WfY`U]h]cbg Wca a i b]W]h]cb`h]h]hg`UbX`a`U]h]f]U`g` (" 5dd`miU`fUb[Y`cZYggYbh]U`h]U`YUk`Umg`Z`ca`Y`h`]W]`di V`]WfY`U]h]cbg`dfUW]W`UbX`W`dfcfU]h`gcW]U`fYgdc]bg]V`]m]

HYUW]b[`GhfU]h[]Yg`

H\]g`Wci fgY`k]`Ya d`cmgYa]bUfg`hc`dfcj]XY`fY[i `Uf`cddcfh] b]h]Yg`Zc`f`dfcXi`W]j`Y`X]U`c[i Yg`UbX`W`U`V`c`f`U]h]cb`"Gh`XYbh]k]`Yb[U[Y`]b`ghfU]h[mXYj`Y`cda`Ybh]UbX`UbU`mg]g`z`X]gW`gg`WcbhYa`dcfUfm`gW`bUf]cg`z`UbU`mgY`W]gY`gh`X]Yg`UbX`XYj`Y`cd`Wca a i b]W]h]cb`h]h]hg`H\Y`YUfb]b[`dfcW`gg`k]`Ya`d`U`g]gY`fYU`k`cfX`di V`]WfY`U]h]cbg`dfcV`Ya`g`z`W`U`Yb[Yg`UbX`cddcfh] b]h]Yg`hc`Ugg]ghgh`XYbh]hc`fY`U]h`h`Y`c`f`Y`h]W]WcbW`dhg`hc`h`Y`dfUW]W`cZ`di V`]WfY`U]h]cbg`" Æh]fUW]j`Y`UbX`fYZYW]j`Y`h]UW]b[`UddfcUW]Yg`k]`VY`df]cf]h]gYX`U`cb[`k]h`WcbW`dh]U`Z`Ua`Yk`cf`g`UbX`Udd`]YX`a`Y`h`c`Xg"

5ggYgga Ybh

D`YUgY`gYY`a cfY`gdYWZ]W[i]XY`]bYg`UbX`gi ddcfhiYgci fWg`cb`A ccX`Y"

5ggYgga YbhHUg_g`

5ggYgga YbhHUg_	K Y][\h	8i Y`8UH`	Ghi XYbh`@YUfb]b[Ci hWta Yg`5ggYggYX
F Ydcfh	' \$l	&\$#/\$#&\$%-`%%) - `DA	%ž&ž ž(
Hi hcf]U`ZUW`]h]cb`	&\$l	dYf`gYa]bUf`gWXYXi `Y	%ž&
7Ua dU][b`7f]hei Y`) \$l	&(#/%#&\$%-`%%) - `DA	%ž&ž ž(

5ggYgga Ybh8YHU]`g

5ggYgga Ybh%`F Ydcfh

GHUfhXUH`.

@Yb[h. `%%\$`\$`k cfXg

8YHU]`g. `%%\$`\$`k cfX`]bX]j]Xi U`fYdcfh`: YYXVUW_`j]U`Hi fb]hb"

5XX]h]cbU`XYHU]`g.

D`YUgY`gYY`a cfY`gdYWZ]W[i]XY`]bYg`UbX`gi ddcfhiYgci fWg`cb`A ccX`Y"

Hi fb]hb`gYH]b[. H\]g`Ugg][ba Ybh]g`gi Va]hYX`h.fci [\ `Hi fb]hb`UbX`gh XYbtg`Xc`bchgYY`Hi fb]hb
g]a]Uf]mfYdcfhg"

5ggYgga Ybh&`Hi hcf]U`ZUW`]h]cb

GHUfhXUH`.

@Yb[h. `%%`a]bg`dYf`dYfgcb`]b`U`[fci d

8YHU]`g. ; fci d`Ugg][ba Ybh`%%`a]bg`dYf`dYfgcb": YYXVUW_`j]U`Hi fb]hb"

5XX]h]cbU`XYHU]`g.

D`YUgY`gYY`a cfY`gdYWZ]W[i]XY`]bYg`UbX`gi ddcfhiYgci fWg`cb`A ccX`Y"

Hi fb]hb`gYH]b[. H\]g`Ugg][ba Ybh]g`gi Va]hYX`h.fci [\ `Hi fb]hb`UbX`gh XYbtg`Xc`bchgYY`Hi fb]hb
g]a]Uf]mfYdcfhg"

5ggYgga Ybh' .`7Ua dU][b`7f]hei Y`

GHUfhXUH`.

@Yb[h. %) \$\$'k cfXg

8YhU]g. %) \$\$'k cfXg": YYXVUW_j]U'Hi fb]hb"

5XX]h]cbU'XYhU]g.

D`YUgY'gYY'a cfY'gdYWZ]W[i]XY`]bYg'UbX'gi ddcfhfYgci fWg'cb'A ccX`Y"

Hi fb]hb'gYh]b[. H\]g'Ugg][ba Ybh]g'gi Va]hX'h'fci [\ `Hi fb]hb'UbX'gh XYbhg'Xc' bchgYY'Hi fb]hb
g]a]Uf]mfYdcfrg"

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

5j U]UV`Y`cb`A ccX`Y"

F YWca a YbXYX`F Ygci fWg

5j U]UV`Y`cb`A ccX`Y"

7ci fgY`9j U`i Uh]cb`UbX`8Yj Y`cda Ybh

H\]g`Wci fgY`k`j`i bXYf[c`Wcb]bi U`XYj Y`cda Ybh]j]U`ZYXVUW`dfcWggYg`gi W`Ug`gh`XYbhgi fj Ymg`UbX`Wc`Y[]U`fYj]Yk "K Y`hYfY`ZcfY`hU`_Y`mci f`ZYXVUW`_j YfmigYf]ci g`m`K`Y`k`j`U`gc`Wc`YWh]bZcfa U`ZYXVUW`_]b`hY`Zcfa`cZUbcbmã ci g`gi [[Ygh]cbg`UbX`Wca a Ybhg`h`fci [\ci h`hY`Wci fgY"

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Hi fb]hb`Gi Va]gg]cb

≠mci`YbWci`bHYf`U`dfcV`Ya`k`Yb`U`HYa`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`fci`[`\`Hi`fb]hb`z`d`YUgY`
HY`Yd`cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`'`'`'`%cf`Ya`U]`h`Ya`cb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`"Gi`ddcfh`
`ci`fg`UfY`,`.\$\$Ua`-`%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`fI`*)`XUmg`U`mY`UfL`"≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhXi`Y`hc`U`ZUi`hik`]h`Hi`fb]hb`mci`a`Um`Udd`mi`Zc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`gh`fY`hU]b`mci`f`h]W`Yhbi`a`VYf`Zca`9I`HYfbU`Gi`ddcfhU`cb[`k`]h`Ubmc`h`Yf`fY`Yj`Ubh`Xc`W`a`Ybhg`L`hc`
]bWi`XY`Ug`Yj`]XYbW`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W]hcb`"≠mci`Ya`U]`9I`HYfbU`Gi`ddcfhmc`i`k`]`
Ui`hca`U]W]m`fY`W]j`Y`U`h]W`Yhbi`a`VYf`z`Vi`h]Zmci`HY`Yd`cbY`mci`k`]`b`Y`Y`X`hc`gd`Y`W]W]m`Ug`_`Zc`f`cbY`"
Hi`fb]hb`U`gc`dfcj`]XYg`i`dXU`HY`g`cb`h`Y]f`gm`gh`Ya`gh`U`h`g`cb`Hk`]h`Yf`"

;`YbYfU`m`z`UggYgga`YbhHUg_g`a`i`gh`VY`gi`Va`]h`Y`X`Y`Y`W`f`cb]W]m`j`]U`Y]h`Y`f`Hi`fb]hb`cf`U`A`cc`X`Y`
Ugg][`ba`Ybh`f`b]bg`h`Ub`W`g`k`Y`f`Y`h`g`]g`b`ch`id`cgg]V`Y`z`]h`k`]`V`Y`g`h`Y`X`cb`mci`f`Wci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`
U`h`Y`fb`U`h]`Y`gi`Va`]gg]cb`XY`hU]`g`"

:`cf`]b`Zc`fa`U]cb`cb`\`ck`hc`gi`Va`]h`Ugg][`ba`Ybh`g`cb`]b`Y`j`]U`A`cc`X`Y`.\`h`td`g`#`gh`XYbh`i`bgk`"YXi`"Ui`#`ack`!
gi`Va`]h`Ugg][`ba`Ybh`a`cc`X`Y`"

5 WUXYa]W<c bYghmUbX 'D`U[]Uf]ga

D`U[]Uf]ga]g'i g]b['hY`k cfXg'cf]XYUg'cZchYfg'UbX'dfYgYbh]b['hYa`Ug'mci f'ck b" #WUb`hU`Y`a Ubm Zcfa gZ`Zca`XY]VYfUHY`WXUhf]b['hc`UWV]XYbhU`mW`dm]b[`Zca`U`gci fW`k]h`ci hUW_bck`YX[Ya`Ybh`

I BGK`[fci dg'd`U[]Uf]ga`]bhc`hY`Zc`ck]b[`WUHY`[cf]Yg.

7cdm]b[.`i`g]b['hY`gUa`Y`cf`j`Yfmg]a`]Uf`k`cfXg`hc`hY`cf][]bU`hY`hcf`]XYU`k`]h`ci`hUW_bck`YX[]b['hY`gci`fW`cf`i`g]b[`ei`chU]cb`a`Uf`g`"H\]g`U`gc`Udd`Yg`hc`]a`U[YgZ`Ufh`UbX`XYg][`b`dfc`YWgZ`Ug`k`Y`"Ug`dfYgYbhU]cbg`k`YfY`gca`YcbY`dfYgYbhg`UbchYf`g`]XYUg`cf`k`cfXg`k`]h`ci`hWYX]h`

#Uddfcdf]UHY`dUfUd`fUg]b[.`7`U`b[]b[`U`Zk`k`cfXg`UbX`d`fUgYg`k`Y`a`cghm`fYU]b]b['hY`cf][]bU`gfi`W`fY`UbX`#`f`dfc[`fYgg]cb`cZ]XYUg`cZ`hY`cf][]bU`Z`UbX`]bZcfa`U]cb`k`]h`ci`hUW_bck`YX[Ya`Ybh`H\]g`U`gc`Udd`Yg`]b[`dfYgYbhU]cbg`k`YfY`gca`YcbY`dUfUd`fUgYg`UbchYf`g`]XYUg`cf`k`cfXg`k`]h`ci`hWYX]h`UbX`hc`d]Y]W]b[`hc[Y`hY`f`ei`chYg`UbX`dUfUd`fUgYg`]bhc`U`bYk`k`Y`c`Z`k`]h`ci`hUddfcdf]UHY`fYZYfYbW]b["

7c`i`g]cb.`k`cf_]b[`k`]h`chYfg`Vi`hdUgg]b[`cZ`hY`k`cf_]Ug`U`dYfgcb`g`]bX]j`]Xi`U`k`cf_]`7c`i`g]cb`U`gc`]bW`i`XYg`dfcj`X]b[`mci`f`k`cf_]`hc`UbchYf`gh`XYbhVYZc`fY`hY`Xi`Y`XUHY`Zc`f`Zc`f`hY`di`fdcgY`cZ`hY`a`d`U[]Uf]g]b[`Uh`Ubmi]a`Y`Z`dUm]b[`UbchYf`dYfgcb`hc`dYfZcfa`Ub`UWUXYa`]W]Ug`Z`gh`U`]b[`cf`UW`ei`]f]b[`UbchYf`dYfgcb`g`UWUXYa`]Wk`cf_]`UbX`W`dm]b[`]h`c`Z`Y`f]b[`hc`W`a`d`Y`h`UbchYf`dYfgcb`g`k`cf_]`cf`g`Y`Y_]b[`dU`ma`Y`bh`Zc`f`W`a`d`Y`h]b[`UWUXYa`]Wk`cf_]`

#Uddfcdf]UHY`W]hU]cb.`7`h]b[`gci`fW`g`k`]Wk`Uj`Y`bchVYYb`fYUXZk`]h`ci`hUW_bck`YX[]b[`hY`"gYW`bXUfm`gci`fW`Zc`a`k`]Wk`_bck`YX[Y`cZ`hY`a`U`g`VYYb`cV]U]bYX"

8i`d`]WU]cb`f`fY`Z`d`U[]Uf]ga`"L`gi`Va`]h]b[`mci`f`ck`b`k`cf_]`b`k`Y`c`f`]b`d`Uf`f`Z`k`YfY`]h`U`g`d`fY`]ci`g`m`VYYb`dfY`dUfYX`cf`gi`Va`]hYX`Zc`f`UbchYf`UggYgga`Ybhcf`W`ci`fgY`U`hI`BGK`cf`UbchYf`i`b]j`Yfg]m`

7c`fY`W`fYZYfYbW]b[`d`fUW]W`g.

- DUfUd`fUg]b[`Zgi`a`a`Uf]g]b[`Z`YggUm`k`f]h]b[`UbX`h]a`Y`a`UbU[Ya`Ybh`
- 5ddfcdf]UHY`i`gY`cZ`UbX`U`hf]Vi`h]cb`Zc`f`U`fU`b[Y`cZ`a`U`hY`f]U`g`]bW`i`X]b[`hY`i`h`]a`U[YgZ`Zc`fa`i`UY`UbX`W`b`W`drg`"

#X]j`]Xi`U`U`gg]gh`UbW`]g`Uj`U]UV`Y`cb`fYei`Ygh`Zc`a`H\Y`@YUf]b[`7`YbhY`f`h`hd`##`k`k`"Wi`bgk`"YXi`"Ui`#`G`h`XYbhg`UfY`U`gc`fYa`]bXYX`h`Uh`W`fY`Z`h]a`Y`a`UbU[Ya`Ybh]g`Ub`]a`dcfU`bhd`Uf`hc`Z`gh`Xm`UbX`cbY`cZ`hY`]XYbh]Z`YX`W`li`gYg`cZ`d`U[]Uf]ga`]g`d`cc`f`h]a`Y`a`UbU[Ya`Ybh`G`h`XYbhg`g`l`ci`X`U`ck`i`gi`Z`W]Y`bh]a`Y`Zc`f`YgYUfW`Z`X`fU`Z]b[`UbX`d`fcdYf`fYZYfYbW]b[`cZ`gci`fW`g`]b`d`fY`dUf]b[`U`"UggYgga`Ybh]h`a`g`"

I BGK`@]VfUfm`U`gc`U`g`hY`9@G9`hc`Uj`U]UV`Y`hc`Ugg]gh`mci`k`]h`mci`f`gh`Xm`U`hI`BGK`"9@G9`]g`XYg][`bYX`hc`]b`f`c`Xi`W`bYk`g`h`XYbhg`hc`g`h`Xn]b[`U`hI`BGK`Vi`h]h`W`b`U`gc`VY`U`[`fYU`h`fY`Z`Yg`Y`f`Xi`f]b[`mci`f`gh`Xn`

7ca`d`Y`h]b[`hY`9@G9`h`hc`f]U`UbX`ei`]n`k`]Y`b`U`V`Y`mci`hc.

- UbU`mgY`hc`d]WgZ`d`Ub`fYg`d`cbgYg`UbX`cf[`Ub]gY`fYgYUfW`Zc`f`UWUXYa`]Wk`f]h]b[`UbX`chYf`UggYgga`Ybh]Ug_g`

5 WUXYa]WbZcfa Uhcb`

: cf`YggYbh]U`ghi XYbh]bZcfa Uhcb`fY`Uh]b[`hc.

- fYei Yghg`ZcfYI hYbg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk `cZa Uf_g/
- I B GK `<YU`h`UbX`GUZY`midc`]WYg/
- YI Ua]bUh]cb`dfcVWXi fYg/
- gdYW]U`Vc]bg]XYfUh]cb`]b`hY`Yj Ybhcz]`bYgg`cf`a]gUXj Ybh fY/
- ghi XYbhYei]hmUbX`X]gUV`]`]m/
- UbX`chYf`YggYbh]U`UWUXYa]W]bZcfa Uh]cbz`gYY

[\hdtg.#k k k "Uftg"i bgk "YXi "Ui #W ffYbhghi XYbh\]bZcfa Uhcb`dfc\]Vc`g!\[i \]XY`\]bYg#](#)

⇒ U[Y`7 fYX]h

Gc`c`DYfZcfa UbW`A U_]b[`&\$%-

7F ⇒ CG

7F ⇒ CG`Dfcj]XYf`7cXY.`\$\$\$- ;