

CVEN4503



7 ci fgY`Cj Yfj]Yk

GHJZZ 7 cbHJW`8YHU]`g

7 cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cWU]cb	D\cbY
A Uf]b`5bXYfgYb	a "UbXYfgYb4 i bgk "YXi "Ui		K F @žA Ub`m J U`Y	

@YW`i fYfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cWU]cb	D\cbY
K]`; `Ua cfY	k "[`Ua cfY4 i bgk "YXi "Ui		K F @žA Ub`m J U`Y	
8fA U\`a ccX GUXUH`Bccf]	a "gUXUH`bccf]4 i bgk "YXi "Ui		K F @žA Ub`m J U`Y	

GWX`cc`7 cbhJW`i`bZcfa Uh]cb

[9b\[\]bYYf\]b\[`Gh XYbhGi ddcfhGYfj \]Wg](#) -`H`Y`Bi WYi g`!`Ybfc`a`Ybř`dfc[fYgg]cb`WX`Y`W`gž`WUg\`fYei`Ygřž`W`i`fgY`]ggi`Yg`cf`dfc[fUa`!fY`UH`X`ei`Yf]Yg`

[9b\[\]bYYf\]b\[`bXi gřf\]U`HfU\]b\]b\[\]`-`bXi`gřf\]U`HfU\]b\]b\[\]`ei`Ygř\]cbg`](#)

[I`BGK`Gh`Xm5VfcUX](#) -`gh`XmUVfcUX`gh`XYbhYbei`]f]Yg`fZc`f]bVci`bX`gh`XYbřgk`

[I`BGK`9I`WXUb\[Y](#) -`gh`XYbhYI`WXUb[`Y`Ybei`]f]Yg`fZc`f]bVci`bX`gh`XYbřgk`

[I`BGK`:\]`h`fY`Gh`XYbřg](#) -`dch`Y`bř]U`gh`XYbhYbei`]f]Yg`Y["`UXa`]gg]cbgž`ZYgž`dfc[fUa`gž`WYX]hřfUbgZYf`

D\cbY`

fZ`*%&Ł`-`'` ,`)` ;`)` \$\$` -`Bi`WYi`g`Gh`XYbh<i`V`

fZ`*%&Ł`-`'` ,`)` `+`*`*`%`-`9b[]bYYf]b[`bXi gřf]U`HfU]b]b[]`

fZ`*%&Ł`-`'` ,`)` ``%+`-`-`I`BGK`Gh`Xm5VfcUX`UbX`I`BGK`9I`WXUb[`Y`fZc`f]bVci`bX`gh`XYbřgk`

7ci fgY'8YHJ]`g

I b]hg'cZ7fYX]h*`

Gi a a Uf `cZ\hY'7ci fgY

F Yj]Yk `cZ[fci bXk UHYf'cVWw ffYbWw]b'5i ghfU']U''D\mg]WU''dfcdYfh]Yg'cZ[fci bXk UHYf'UbX'[fci bXk UHYf'cVWw ffYbWw''Df]bW]d'Yg'cZ[fci bXk UHYf'Zck "GrcfU[Y'UbX'hfUbgga]ggj]hm!]a dUWg'cZ[fci bXk UHYf'UVghfUW]cb"; fci bXk UHYf']b'hY'\nXfc'c[]WU''WwWY. Zck 'bYhg/gi fZUW'k UHYf'[fci bXk UHYf']bhYfVebbYW]j]hm!; fci bXk UHYf'a cXY''b["; fci bXk UHYf'fYWXUf[Y'a YWXUb]ga g'UbX'k UHYf'VU'UbWw WU'W'Uh]cbg"8f]'b['a Yh.cXg'Zcf'[fci bXk UHYf'UVghfUW]cb/[Ycd\mg]WU''c[[]b[/k Y''XYg][b'UbX Vca d'Yh]cb'Zcf'k UHYf'dfcXi W]cb'VcfYg''Gc'i h]cbg'hc'hY'fUX]U'Zck 'Yei Uh]cb/di a d]b['hYgh]bhYfdYU]h]cb/U'dfc[fUa `cZZY'X'k cf_'UbX'XU]U'UbU'mg]g'k]''VY'i bXYfhU_Yb'Uh'hY'i B GK : Ufa]b'K Y''b[hcb"

7ci fgY'5]a g

H\Y'U]a `cZ\h]g'Wci fgY]g'hc'XYj Y'cd'U'gh XYb]h]i bXYfghU]b]b[`cZ\hY'cVWw ffYbWw `cZ[fci bXk UHYf'UbX

Wcbgc`XUhr`hY`i bXYfgHbX]b[`UWk]Yj YX`]b`hY`(`k YY_g`cZ`YWh fYg`H\Y`Zj`X`Wci fgY`k`j`Wca a YbW`cb
A cbXUm%(h`cZA UfWk`UbX`WcbWl XY`cb:: f]XUm% h`cZA UfWk`fl`XUmg`]b`hY`Zj`XE`5`Vi`g`k`j`VY`\]fYX`Zcf
hY`fUbgdcfhr`UbX`Zca`K`Y`]b[`hcb`"C`b`hY`A`cbXUmYj`Yb]b[`k`Y`k`j`"c`X`U`66E`]bZ`gYgg]cb`Uh`hY`Zj`X`
Wci fgY`UW`Wca a cXU]cb`cb`Uff]j`U`"

7CJ`8%`fYei`]fYa`Ybtg.

Mci`k`j`"bYXX`h`dfcj`]XY`dfccZcZmci`fj`UWk]bY`W`fh]Zj`Wj`f`k`c`a`UXUhc`fmj`UWk]bU]cbgkZ`UbX`dfY`ZfUV`m
U`gc`dfccZcZU`h`]fX`VccghY`f`g`h]b`h]a`Y`Zcf`hY`K`Y`]b[`hcb`Zj`X`h]d`":`cf`A`cbXUm`hY`%(h`cZA`UfWk`mci
k`j`"bYXX`h`dfcj`]XY`U`bY[`Uhj`Y`D7F`hYghfbc`a`cfY`h`Ub`(`,`"ci`fg`c`XE`cf`U`bY[`Uhj`Y`F`5H`hYghZcf`hY
gUa`Y`A`cbXUma`cfb]b[`"D`YUgY`Vf]b[`mci`f`ck`b`gi`dd`mcZj`W`a`Ug_g`Zcf`hY`k`YY`_`"

Zmci`"Uj`Y`WcbW`fbg`]b`fY[`UfXg`h`hY`Zj`X`h]d`cf`Wcj`]Xz`d`YUgY`WcbUW`h`Wci`fgY`WcbfX]bUhc`f`8`f`A`Ufh]b
5bXYfgYb`"

5ggYgga Ybh

H\]g'Wci fgY'k]''VY'UggYggYX'Vmik c'Ugg][ba Ybtg'UbX'cbY'ZbU'fYdcfhfBchY. 'H\YfY']g'bc'Y, Ua 'Uhh\Y YbX'cZ\h]g'Wci fgY'k' H\Y'k c'Ugg][ba Ybtg'Zk \]W'hclU'g') \$i 'cZ\hY'Wci fgY'a Uf_žUfY'a YUbhlc'hYghhUh h\Y'gh XYbtg'i bXYfghUbX'h\Y'WcbhYbhcZ_YmV\UdhYfg:]b'h\Y'Wci fgY'bc'hYg'UbX'hYghh\Y]f'Wca dYhYbWYg:]b i g]b[' [fci bXk Uhf'']bj Ygh[U]cb'a YhcXg''H\Ymk]''U'gc'dfcj]XY'h\Y'gh XYbtg'k]h'YUfmZ'YXVUW'cb'\ck h\YmUfY'dfc[fYgg]b['k]h'h\Y'Wci fgY''H\Y'ZbU'fYdcfhf) \$i 'cZ\hY'Wci fgY'a Uf_ž]g'U' [fci d'Ugg][ba Ybhf] gh XYbtg'hc'U' [fci d'k''H\Y'fYdcfhk]''Wcbg]ghcZ%&'U'gi a a UfmcZ\hY'Z'Y'X'UW]j]hYg'Uhh\Y'K'Y''b[hcb':]Y'X F YgYUfW\ 'GhU]cb/&E'dfYgYbH]cb'cZ\hY'fYgi 'hg/UbX'' E'Ub']bH[fUhfX'gmbhYg]g'cZ\hY' [fci bXk Uhf' dfcW'ggYg'Uh\Y'Z'Y'X'ghU]cb'VUgYX'cb'U''fYgi 'hg''9UW\ gh XYbhk]''\Uj Y'hc'Xc'U'gdYW]Z'WdUfhcZ\hY fYdcfhZcf']bX]j]Xi U''UggYgga Ybtž'Vi h]h]g'j Yfma i W\U'Wc''UVcfU]j Y'YZc'fh'

5ggYgga Ybh' . K Y`]b[hcb :]Y`X`5gg][ba Ybh

GhUfhXUHY . %(# \$ ' # & \$ & & % & . \$ \$ ' 5 A

5ggYgga Ybh`Yb[h . B #

8i Y`XUHY . &) # \$ (# & \$ & \$) . \$ \$ ' D A

H\]g`Ugg][ba Ybhk]`UggYgg`hY`ghi XYbht`i bXYfghUbX]b[`cZ`hY`a Y`h`cXg`XYa cbghfUHYX`]b`hY`Z`Y`X`z`UV`]m
h`d`fYgYbhUbX`W`h`W`miUggYgg`hY`ei U`]micZ[fci bXk UHYf`Z`Y`X`XUHU`c`V`H]bYX`VmU`fUb[Y`c`Za Y`h`cXg`UbX
Z`bU`mi`h`Y`f`UV`]mhc`]bhYfdYh`h`Y`Z`bX]b[g`]b`fY`U`h`cb`h`c`[fci bXk UHYf`d`f`c`W`ggYg`"K`c`f`_]g`V`c`a`d`Y`h`X`U`g`U
[fci d`Vi`h]bX]j`]Xi U`g`bca`]bUHY`k` \]V`g`Y`W`h`cb`h`Y`mk`f`c`h`U`b`X`U`f`Y`a`U`f`_`Y`X`U`V`W`c`f`X]b[`m`

5hYbXUbW'F Yei]fYa YbHg

: cf'h.]g'Wci fgY'h\Y'K Y''b[hcb':]Y'X'Wca dcbYbhi]g'a UbXUhc'fm') \$i 'cZHY'Wci fgY'a Uf_]g'VUgYX'cb'h\Y

		Yei Uhjcbg'cZ[fci bXk UHYf'Zck 5#DfcZK]"; 'Ua cfY
	K cf_g\cd	K YXbYgXUm%%\$!% .\$\$'f7 9+\$\$%UbX'Cb'j]U A ccX'YŁ H\]g'k cf_g\cd'&'jg'cb'a UHYf]U'Zcf'5gg][ba Ybh% fUggYggUV'YŁ D\mg]W' dfcdYfh]Yg'cZk UHYf'UbX'W'W'U'h]cb cZ[fci bXk UHYf'Zck
K YY_" . '& , : YVfi Ufm! ('A UfWx	GYa]bUf	K YXbYgXUm- .\$\$!%%\$\$'fC b'j]bY'cb'mj]U'A ccX'YŁ ; YcWxYa]W']bj Ygh[Uh]cbg 5#DfcZA Ufh]b'5bXYfgYb
	K cf_g\cd	K YXbYgXUm%%\$!% .\$\$'fC b'j]bY'cb'mj]U'A ccX'YŁ H\]g'jg'k cf_g\cd" 'UbX'jg'cb'a UHYf]U'Zcf 5gg][ba Ybh&'fUggYggUV'YŁ"
K YY_(. '+A UfWx ! '% A UfWx	GYa]bUf	K YXbYgXUm- .\$\$!%%\$\$'fC b'j]bY'cb'mj]U'A ccX'YŁ Gi fZJW'k UHYf' [fci bXk UHYf']bh'fUW]cbg 8f'A U\ a ccX'GUXUH Bccf]'
	K cf_g\cd	K YXbYgXUm%%\$!% .\$\$'fC b'j]bY'cb'mj]U'A ccX'YŁ H\]g'jg'k cf_g\cd('UbX'jg'cb'Gi fZJW'k UHYf' [fci bXk UHYf']bh'fUW]cbg'fbc b!UggYggUV'YŁ
K YY_) . '%('A UfWx ! '% A UfWx	:]Y'Xk cf_	H\]g'jg'hY'K Y''j]b[hcb':]Y'X'7 ci fgY'k YY_"K Y k]''VY''YUj]b['GmXbYmicb'A cbXUmihY'%(h\Uh %&.\$\$'fYI UWh]ja Y'UbX'd'UW' H65Ł"K Y'k]''ghUmUh hY'K Y''j]b[hcb'7Uj Yg'7Ua d[fci bX'"H\Y'fYh'fb'hc GmXbYmk]''VY'cb': f]XUmihY'%' h\]b'hY'YUf'm UZfYfbccb""
K YY_*. '&%A UfWx ! '&) A UfWx	<ca Yk cf_	: @9L -6 @+HMK 99? Bc'gWXYXi 'YX'WUgg""7cb]bi Y'k cf_]b['cb K Y''j]b[hcb'Z]Y'X'f]d'Z'ck'li d.; fci dk cf_ZXUfU ei U']mUggYgga Ybh'XUfU'dfcW'gg]b[ž'fci V'Y g\cch]b['UbX'E/ 5"
K YY_+. '& , 'A UfWx ! '% 5df]	; fci d'K cf_	K YXbYgUm- .\$\$!% .\$\$"F cca '7 9+\$\$% K Y''j]b[hcb'Z]Y'X'f]d'Z'ck'li d.; fci dk cf_ZXUfU ei U']mUggYgga Ybh'XUfU'dfcW'gg]b[ž'fci V'Y

		g\cch]b['UbX'E / 5"
K YY_ ; '('5df]'! ; '5df]' ; fci d'K cf_		K YXbYgUm- .\$\$!% .\$\$" F cca '7 9+\$\$% K Y`]b[hcb`Z]Y`X`hf]d`Z`ck !i d.`; fci dk cf_žXUfU ei U`]m]UggYgga YbžXUfU`dfcVWgg]b[ž]fci V`Y g\cch]b['UbX'E / 5"
K YY_ '- .%%'5df]'! %) 5df]' ; fci d'K cf_		K YXbYgUm- .\$\$!% .\$\$" F cca '7 9+\$\$% K Y`]b[hcb`Z]Y`X`hf]d`Z`ck !i d.`; fci dk cf_žXUfU ei U`]m]UggYgga YbžXUfU`dfcVWgg]b[ž]fci V`Y g\cch]b['UbX'E / 5"
K YY_ '\$. '% '5df]'! '&& 5df]' ; fci d'K cf_		hX]]Xi U`k cf_]b`fYdcfh]b['[' fci dg`UbX`fYdcfh gi Va]gg]cb`cb`hY`A cbXUm]hY`&) hžVYžcFY`)'da "

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\]g`Wci gY`k]`a U]b`mfY`micb`h\Y`YW`i fY`bchYg`"H\Y`UW`i U`Y`YW`i fYg`UbX`h\Y`dck Yfdc]bhg`k]`U`gc`VY
Uj U]UV`Y`cb`]bY`cb`A ccX`Y`UbX`fYW`fX]b[`cb`9W`c' * \$"

F YWca a YbXYX`F Ygci fWg

F YWca a YbXYX`[YbYfU`h\I hcc_g`UfY.

- 5dd`]YX`<mXfc[Yc`c[m!`!` : ci f\`9X]j]cb`f&\$\$%&Vmi7`"K`" : YhYf/di V`]g\YX`VmiDfYbh]VW`<U`!`!` : cf`U
VUg]W]bhfX`i W]cb"

Gi Va]gg]cb'cZ'5ggYgga YbhiHUg_g

D`YUgY'fYZf'hc'hAY'A ccXY'dU[Y'cZHAY'Wci fgY'Zcf'Z fHAYf'[i]XUbW'cb'UggYgga Ybhgi Va]gg]cb"

I BGK `Ug'U'ghUbXUfX`UH'gi Va]gg]cb'dYbU'h'cZ

-)i `dYf'XUmz'Zcf'U`UggYgga Ybhg'k`YfY'U'dYbU'hmUdd'YgZ'WUddYX'UhZj Y'XUmg'f%&\$`lci fglZ'UZfYf'k`JW'U'gh'XYbhWUbbchgi Va]hUb'UggYgga YbZ'UbX'bc'dYfa]H'X'j'Uf]U'cb"

5 WUXYa]W=Zcfa Uh]cb

:]bU`9, Ua]bUh]cbg.

5ddYbX], . '9b[]bYYfg'5i ghfU`U'f95E'DfcZYgg]cbU`'9b[]bYYf'7ca dYhYbW
GHUbXUfX

Dfc[fUa 'hYbXYX'@YUfb]b['Ci hWta Yg	
? bck `YX[Y'UbX'g_]`VUgY	
D9%"%7 ca dfY\Ybg]j YzhYcfmVUgYX'i bXYfghUbX]b['cZhY'i bXYfd]bb]b['bUh fU`UbX d\mg]WU`gWYbWg'UbX'hY'Yb[]bYYf]b['Z bXUa YbH'g'Udd']WUV'Y'hc'hY'Yb[]bYYf]b['X]gWd`]bY	
D9%"&'7 cbWdh U`i bXYfghUbX]b['cZhY'a UhYa Uh]Wg'z'bi a Yf]WU`UbU'mg]g'ghUhgh]Wg'z'UbX Wta di h'f'UbX']bZ'fa Uh]cb'gWYbWg'k \]W' i bXYfd]b'hY'Yb[]bYYf]b['X]gWd`]bY	
D9%" " 'h!XYdh'i bXYfghUbX]b['cZgdYWU`]ghVcX]Yg'cZ_bck `YX[Y'k]h]b'hY'Yb[]bYYf]b[X]gWd`]bY	
D9%"('8]gWfba YbhcZ_bck `YX[Y'XYj Y`cda YbhUbX'fYgYUfW'X]fYW]cbg'k]h]b'hY Yb[]bYYf]b['X]gWd`]bY	
D9%"') ? bck `YX[Y'cZYb[]bYYf]b['XYg][b'dfUW]W'UbX'WcbhYi h U`ZUW'c'fg]a dUW]b['hY Yb[]bYYf]b['X]gWd`]bY	
D9%"* 'i bXYfghUbX]b['cZhY'gWc'dYz'df]bWd`Yg'z'bcfa g'z'UW'c'i bhUV]']h]Yg'UbX'Vci bXg'cZ gi gh]bUV'Y'Yb[]bYYf]b['dfUW]W']b'hY'gdYW]ZWX]gWd`]bY	
9b[]bYYf]b['Udd']WU]h]cb'UV']]m	
D9%"%5dd`]WU]h]cb'cZYghUV]g\YX'Yb[]bYYf]b['a Yh'cXg'hc'Wta d'Yi'Yb[]bYYf]b['dfcV'Ya gc']]b[
D9%"&:'i YbhUdd`]WU]h]cb'cZYb[]bYYf]b['h'W]b]ei Yg'z'hc'g'UbX'fYgci fW'g	
D9%" " '5dd`]WU]h]cb'cZgmg'hYa Uh]WYb[]bYYf]b['gmb'hYg]g'UbX'XYg][b'dfcW'ggYg	
D9%"('5dd`]WU]h]cb'cZgmg'hYa Uh]WUdd'fcUW'Yg'hc'hY'WcbXi W'h]UbX'a UbU[Ya YbhcZYb[]bYYf]b[dfc'YW'g	
DfcZYgg]cbU`UbX'dYfgcbU`Uhf]Vi h'Yg	
D9' "%9h]WU`WcbXi W'h]UbX'dfcZYgg]cbU`UW'c'i bhUV']]m	
D9' "&'9ZYW]j Y'cfU`UbX'k f]h'Yb'Wta a i b]WU]h]cb']b'dfcZYgg]cbU`UbX`UmXca U]bg	
D9' "' '7fYUh]j Yz']bbcj Uh]j Y'UbX'dfc!UW]j Y'XYa YUbcif	
D9' "('DfcZYgg]cbU`i gY'UbX'a UbU[Ya YbhcZ]bZ'fa Uh]cb	
D9')" 'C'fXYf'ma UbU[Ya YbhcZgY'z'UbX'dfcZYgg]cbU`WcbXi W'h	
D9' "*" '9ZYW]j Y'h'Ua 'a Ya VYfg\]d'UbX'h'Ua ``YUXYfg\]d	