

I bVY_UbbhY`VYgW\AX][Yb`K c\bUb\Ab[Yf]b'K Y]a Uf``NYi[Yb`[Ygi W\h

± K Y]a Uf gcf[hY]b J cfZU``ZØf5i ZfY[i b[žXYf'UbgWkUi`]Wk a UWkhžk]Y gWkbY``Ui g'Y]bYa '\Ufa `cgYb'A ca Ybh'Y]b [YZÀ\f`]WkYf'J cfZU```k YfXYb'_Ubb"5a 'A cbhU[UVYbXž'nk]gWkYb'%-i bX'&&"' \$'I \fž'k i fXY'Y]b 'K c\bUb\Àb[Yf']b 'XYf'HUi VUWkYf GhfU» Y'j cb'i bVY_UbbhYb'HÀhYfb'a Ub]di`]Yfh"'8]Y 'HÀhYf'\cVYb'X]Y J cfXYfUWkgY'XYg'5b\Àb[Yfg'Ub'i bX'`ÒghYb'XYggYb'<UbXVfYa gY" 8]Yg'\UhhY'gWkkYfk]Y[YbXY': c`[Yb.'8Yf'5b\Àb[Yf'fc``hY i b_cbhfc``]Yfh`cg'i bX'_fUWkhY'[Y[YbY]b'[YdUf_hYg'5i hc"

 $6Y]XY: U\setminus fnYi \ [Y'Yf']hhYb'Yf\setminus YV']WXYb'GUWXgWXUXYbži bX'X]Y\\ Dc`]nY]']b'K Y]a Uf'\Uh'X]Y'9fa]hhìi b[Yb'VYfY]hg'Ui Z[Ybca a Yb'' 8]Y'6Y\ÔfXYb'g]bX'Ui Z'XYf'Gi WXY'bUWX'NYi [Ybž'X]Y'<]bk Y]gY'ni XYa 'J cfZU``'[YVYb'_ÔbbYb'''K Yf'Yhk Ug'VYcVUWXhYh'\Uhž'k]fX [YVYhYbž'g]WX'i bhYf'XYf'HY`YZcbbi a a Yf'$' * ('#, &!$'cXYf'dYf'9! A U]`'Ub'd]''k Y]a Uf4 dc`]nY]''h\i Yf]b[Yb''XY'ni 'a Y`XYb'''8]YgYf J cfZU``'j YfXYi h`]WXhž'k]Y'k]WXh]['K UWXgUa _Y]h']b'i bgYfYf B UWX VUfgWX UZh']ghž'XU'gc`WXY'a i hk]``][Yb'<UbX`i b[Yb'b]WXh'bi f GUWXgWXÀXYb'Ubf]WXhYbž'gcbXYfb'Ui WX'dchYbn]Y``'[YZÀ\f`]WX'g]bX''$

9]b k Y]hYfYf J cfZU``. 8]YVghU\`Ui g DcghUi hc

8 c W 'b] W h h b i f 'X Y f 'K c \ b U b \ À b [Y f 'g c f [h ' ZØf 'G W `U [n Y] `Y b " '5 a A] h h k c W `\ U V Y b 'X] Y '9 f a] h h `Y f 'Y] b Y b ' k Y] h Y f Y b '8] Y V g h U \ ``] b '6 U X 6 Y f _U '[Y a Y `X Y h ž 'X Y f 'X] Y 'O f h `] W Y b '5 b k c \ b Y f 'V Y h f c ZZY b 'a U W h " ' \ \ X Y f 'N Y] h ' j c b ' % ("%) ' I \ f 'V] q ' %) ' l \ f k i f X Y 'Y] b 'F i W q U W 'Y] b Y q

',!'À\f][Yb'DcghnighY``Yfg'[Yghc\`Yb"'8Yf'NighY``Yf'\UhhY'gY]bYbFiW_gUW_z']b'XYa 'g]W\'dYfgÒb`]W\Y'; Y[YbghÀbXY'VYZUbXYbz'UiZXYa '6Y]ZU\fYfg]hn'gY]bYg'NighY``ZU\fnYi[g'[Y`UggYbz'k À\fYbX'Yf_ifnnY]h]['Ui »Yf\U`V'XYg': U\fnYi[g'hÀh]['k Uf"'5i Z[fi bX'XYf\c\Yb'HYa dYfUhifYb'\UhhY'Yf'XUg': YbghYf'[YÒZZbYh"

8]Y 'HUh'[YgWXU\'cZZYbVUf']b'Y]bYa 'i bVYcVUWXhYhYb'A ca Ybhž'U`g X]Y '8]YVY 'X]Y'; Y`Y[Yb\Y]h'Yf[f]ZZYb'i bX'Xi fWX 'XUg'cZZYb ghY\YbXY': YbghYf']b'XUg'5i hc'Y]bXfUb[Yb"'5i » Yf'XYa 'J Yf'i gh gY]bYg'Fi W_gUW_g'a i gghY'XYf'Dcghni ghY``Yf'Ui WX'XYb J YfhfUi Ybgj Yf`i gh']b'X]Y'G]WXYf\Y]h'XYf'BUWXVUfgWXUZh'Yf`Y]XYb" K]Y'X]Y'Dc`]nY]'VYfY]hg'a]hhY]`hYž'g]bX'<]bk Y]gY'\]Yfni 'YVYbZU``g gY\f'k]``_ca a Yb"'G]Y'_ObbYb'i bhYf'XYf'[`Y]WXYb'HY`YZcbbi a a Yf \$' *(' #, &!\$'cXYf'dYf'9!AU]``Ub d]"k Y]a Uf4 dc`]nY]"h\i Yf]b[Yb"XY'[Ya Y`XYh'k YfXYb"

8]YgY'VY]XYb'JcfZÀ``Y'k YfZYb'Y]b'@]Wkh'Ui Z'U_hi Y``Y'DfcV`Ya Yž'X]Ygckc\``X]Y'GhUXh'K Y]a Uf'U`g'Ui Wk'XUg'i a `]Y[YbXY'; YV]YhVYhfYZZYb''K À\fYbX'X]Y'9fa]hhìi b[Yb'bcWk']a '; Ub[Y'g]bXžUddY``]Yfh'X]Y'Dc`]nY]'Ub'X]Y'6Øf[Yfž'VYgcbXYfg'Ui Za Yf_gUa 'nigY]b'i bX'a Ò[`]WkY'j YfXÀWkh][Y'5_h]j]hÀhYb'gcZcfh'ni 'a Y`XYb''8]Yg'[]`h'b]Wkh'bi f'ZØf'XYb'GWki hn'XYg'Y][YbYb'9][Ybhi a gžgcbXYfb'Ui Wk'ZØf'XUg'; Ya Y]bk c\`'''\deltaXYa 'k]f'U``YnigUa a YbUfVY]hYbž'_ObbYb'k]f'i bgYfY'BUWkVUfgWkUZh'g]WkYfYf[YghU`hYb'i bX'À\b`]WkY'JcfZÀ``Y']b'XYf'Ni_i bZh'j Yf\]bXYfb''

± XYf`\Yi h][Yb`NY]h`]gh`Yg`k]W\h][ž`XUgg`X]Y`² ZZYbh`]W_Y]hž`Y]b k UW\YbXYg`5i [Y`Ui Z`]\fY`I a [YVi b[`\Uh"`G]hi Uh]cbgVYk i gghgY]b _Ubb`Y]bYb`[fc»Yb`I bhYfgW\]YX`a UW\Yb"`CV`Yg`g]W\`i a `Y]bYb i b_cbhfc``]YfhYb`K c\bUb\Àb[Yf`\UbXY`h`cXYf`i a `XUg`[Yg]W\YfhY 9][Ybhi a `Y]bYg`Ni ghY``Yfgž`'YXY`9]bnY`\Y]h`nÀ\`h"`5i W\`k Ybb`U``Yg\Ufa `cg`YfgW\Y]bhž`gc``hY`b]Ya UbX`X]Y`5i [Yb'j cf`a Ò[`]W\Yb 6YXfc\i b[Yb'j YfgW\`]Y»Yb"

5b[Yg]Wkhg'XYf'Øb[ghYb'9fY][b]ggY'[]Vh'Yg'j]Y``Y]Wkh'b]Wkh'bif Y]bY'5i ZZcfXYfi b['ni f'K UWkgUa _Y]hž'gcbXYfb'Ui Wk'Y]bY 9f]bbYfi b['XUfUbž'X]Y'BUWkVUfgWkUZh'U_h]j 'ni 'i bhYfghØhnYb" FY[Y`a À»][Y'; YgdfÀWkY'i bhYf'BUWkVUfb'ØVYf'6YcVUWkhi b[Yb $\label{eq:continuous} i \ bX`9fZU\ fi \ b[\ Yb`_ObbYb`XUni \ `VY]hfU[\ Ybž`XUg`G]WXYf\ Y]hg[\ YZØ\ `ni \ `ghAf_Yb`i \ bX`dchYbn]Y``Y`DfcV`Ya \ Y`ZfØ\ nY]h][\ `ni \ `Yf_YbbYb"$

8 YhU]`g

6Ygi WXYb'G]Y'i bg'Ui Z.'X]Y!bUWXf]WXhYb"bYh