



ARTS3819

9a Yf[]b['7 \U`Yb[Yg']b' ðhYfbUh]cbU`GYW f]hm

HYfa `Cby`#`&\$&%

7ci fgY`Cj Yfj]Yk

GHJZ`7cbHJW`8YHJ]`g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cW]h]cb	D\cbY
A cb]_U`6UfHk U! 8UfH	a "VUfHk U!XUfH4 i bgk "YXi "Ui	H67	F cca `%(- A cfj Yb`6fck b 6i]X]b[

GWXcc``7cbHJW`bZcfa U]h]cb

GWXcc``cZGcW]U`GWYbWg

F cca `%) -

A cfj Yb`6fck b`7 &\$

Ya U]`.]gcgg4 i bgk "YXi "Ui

d\cbY. '\$&`- ' ,) `)% \$+

5ggYgga Ybh

Gi Va]gg]cb'cZUgg][ba Ybhg''

5`UggYgga Ybhg'a i ghVY'gi Va]hYX'Y'YWfcb]WU`micb`nž'ħ'fci [\ 'ħ'Y'fY'Yj UbhUggYgga YbhHi fb`ħ'c'f'fU']b'A ccX'Y''H\YfY']g'bc \UfX'W'c'dmigi Va]gg]cb'fYei]fYX''D'YUgY'Ybgi fY'ħ'Uhmci f'bUa Y'UbX'ghi XYbh-8 bi a VYf'UfY'cb'Yj YfmdU[Y'cZmci f'gi Va]gg]cb''Mci 'UfY'bcf'fYei]fYX'ħc'UħUW'U'W'c'j Yf'g\YYħtc Y'YWfcb]WU`migi Va]hYX'UggYgga Ybhg''

K \Yb'mci 'gi Va]hUb'UggYgga YbhUhl B GK žmci 'UfY'UW_bck `YX[]b['ħ'Uhmci '\Uj Y'i bXYfgħcX'UbX UV]XYX'Vmħ'Y' i b]]Yfg]ħm'fYei]fYa Ybhg]b'ħ'Y'dfYdUfUħ'cb'cZħ'UħUggYgga Ybh]ħYa ž]b'fYgdY'Wħ'cZgh XYbh UWUXYa]Wa]gW'cbXi Wħci h]bYX']b'ħ'Y'E fgVW f 5 aVWBa'Uk'UbX'E fgVW f? [eUa' VgUf B'c'UWgdW'ē'Z'Vch'cZ k \]W'UfY'Uj U]UV'Y'Uh \h'gdg. #gh XYbh'i bgk "YXi "Ui #ħ'cbXi W'

Mci 'UfY'U'gc'XYWUf]b['ħ'Uhmci'Y'UggYgga Ybh]ħYa ']g'mci f'ck b'k cf_ž'YI W'dhk \YfY'UW_bck `YX[YXž UbX'\Ug'bcf'fY'Yb'gi Va]hYX'Z'f'UWUXYa]W'fYX'ħ'dfYj]ci g'm]b'k \c'Y'cf']b'dUfħ'

ħ'UXX]ħ'cbž'mci 'gi Va]h'ħ'Y'UggYgga Ybh]b'ħ'Y'_bck `YX[Y'ħ'Uħ

- % 'ħ'Y'W'ci fgY'W'cbj Ybcf'a Umdfcj]XY'U'W'c'dmcZħ'Y'Ugg][ba Ybh'ħc'Ubch'Y'f'ghUZZ'c'f'ħ'Y'di fdcgY'g'cZ UggYgga Ybh'cf'Yj U'i Uħ'cb/UbX
- " U'W'c'dmcZħ'g'UggYgga Ybh]ħYa 'k]'VY'fYħ]bYX']b'ħ'Y'Hi fb`ħ'XUħUVUgY'UbX'a UmVY'i gYX']b Yj U'i Uħ'cbg'cZcf][]bU']m'

G@Ei b'c'ħ[VW'ē'egbbad'f'ħ'defgVW fe []ge[Y'Fgd ;f'` Sf \h'gdg. #gh XYbh'i bgk "YXi "Ui #i fb]ħ'bl'gi ddcf'ž FZ[e i W'bsYW[U'gVW'ē [Īad_ S'f'a` a` Zai fa YW'W'c'f'W'S` V [f'W'bd'W'adY[S'f'k d'W'bad'ē [Fgd ;f'` ž E'gbbad' [e S'ēa ShS[ST'W'X'a_ f'ZWUW'f'cS'^Fgd ;f'` : Wb 5W'f'Wd Sf \h'gdg. #i fb]ħ'bl"W'c'a #bSi g#gi ddcf'ħ'Y'd!W'bh'f'ž

Hc'W'X'Y'W' mci '\Uj Y'gi Va]hYX'mci f'Ugg][ba Ybhigi W'W'ggZ `m'nci 'g\ci 'X'W]W' J]Yk 'X][]ħU' fYW']dh'Uħ'ħ'Y'V'c'ħ'c'a `Y'Z'ħ\UbX'W'c'fb'Y'f'c'Zħ'Y' A mGi Va]gg]cbg'g'W'fY'Yb''Mci 'g\ci 'X'df]b'ħ'cf'gUj Y ħ'Y'X][]ħU'f'Y'W']dh'Z'c'f'mci f'f'Y'W'c'f'X'g''8c'bc'ħ'bUj][Uħ'Uk'Um'Z'f'ca 'ħ'Y'gi Va]gg]cb'g'W'fY'Yb'cf'W'cgY mci f'Ud'ħ'c'd'Xi f]b['i d'c'UX''

ħ']g'mci f'fY'gdcbg]V]]m'ħc' _YY'd'U'W'c'dmcZmci f'k cf_]b'WUgY'c'Z'cgg'cZUb'Ugg][ba Ybh'i'Mci 'UfY'U'gc fY'gdcbg]V'Y'Z'c'f'W'X'Y'W']b['ħ'Uhmci f'gi Va]gg]cb']g'W'c'a d'Y'ħ'UbX'U'W'W'f'U'ħ'' : cf']b'Z'c'fa Uħ'cb'U'V'ci h'G'd'Y'W'U' 7'cbg]X'Y'f'Uħ]cb'UbX'9i h'Ybg]cbg'UbX'@Uħ'Gi Va]gg]cb'c'ZK cf_ž'd'YUgY'f'Y'Z'f'ħ'ħ'Y'G'W'cc'g'D'c']W'Y'g UbX' ; i]XY']b'Y'g'Uj U]UV'Y'Uh \h'gdg. #gcWU'g'W'Y'b'W'g'U'f'g'i bgk "YXi "Ui #gh XYbh'f'Y'gci f'W'g'ħ'c']W'Y'g! [i]XY']b'Y'g#

F Yhi fb'cZUgg][ba Ybhg''

9'YWfcb]Wgi Va]gg]cbg'k]'VY'fYħ' fbYX'j]U'ħ'Y'Hi fb`ħ'c'f'fU'cb'A ccX'Y'k]ħ'Y'YWfcb]WZ'Y'X'V'U'W'k]ħ]b ħ'c'k'Y'Y_g'c'Zgi Va]gg]cb''

5ggYgga YbhHUg_g

5ggYgga YbhHJg_	K Y][\h	8i Y'8UH	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
Dc`]WnVf]YZ	(\$i	H67	%ž' ž(
F YgYUfW`DUdYf`	* \$i	H67	%ž &ž(

5ggYgga Ybh8YHJ]`g

5ggYgga Ybh%`Dc`]WnVf]YZ

GHUfhXUH. Bch5dd`]WUVY

@Yb[h. %ž&\$ \$k cfXg

8YHJ]`g.

Gh XYbhk]`VY`fYei]fYX`hc`k`f]h`U`dc`]WnVf]YZf%ž&\$ \$k cfXg`h`Uh]g`U`U`W`b`W]g`Y`gi`a`a`U`f`m`c`Z`U`d`U`f`h]W`U`f`
]ggi`Y`ž`d`c`g]V`Y`d`c`]WnVf]YZ`f`%ž&\$ \$k cfXg`h`Uh]g`U`U`W`b`W]g`Y`gi`a`a`U`f`m`c`Z`U`d`U`f`h]W`U`f`
VYghk`U`n`f`g`k`Z`c`f`k`U`f`X`"Dc`]WnVf]YZ`g`U`f`Y`U`]a`Y`X`U`h`d`c`]WnVf]YZ`U`_`Y`f`g`U`b`X`c`h`Y`f`g`]b`h`f`Y`g`h`X`c`f`]b`j`c`j`Y`X`]b`
XYj`]g]b[`c`f`]b`Zi`Y`b`W]b[`d`c`]WnVf]YZ`Gh`XYbhk`]`f`Y`W]j`Y`k`f]h`b`U`b`X`c`f`U`Z`Y`X`V`U`W`"

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

H\]g`h]g`_`f`Y`ei`]f`Y`g`m`c`i`h`c`W`k`c`c`g`Y`c`b`Y`c`Z`h`Y`]ggi`Y`g`W`c`j`Y`f`Y`X`]b`h`Y`W`c`i`f`g`Y`U`b`X`d`f`Y`g`Y`b`h]h]U`g`U`b`Y`a`Y`f[]b[
g`Y`W`f]m]ggi`Y`f`h]g`a`i`g`h`b`c`h`V`Y`h`Y`g`U`a`Y`U`g`h`Y`h`c`d]W`c`Z`m`c`i`f`f`Y`g`Y`U`f`W`Y`g`g`U`m`c`U`b`X`k`f]h`U`%ž&\$ \$k cfX`
d`c`]WnVf]YZ`c`b`h`Y`W`c`g`Y`b`h`c`d]W`H`Y`k`c`f`X`W`c`i`b`h`X`c`Y`g`b`c`h]b`W`i`X`Y`h`Y`f`Y`Z`f`Y`b`W`"]g`h]U`b`X`m`c`i`a`U`m[`c`c`j`Y`f`
c`f`i`b`X`Y`f`h`Y`d`f`Y`g`W]V`Y`X`k`c`f`X`]a`]h`V`m`%\$i`"

H\Y`d`c`]WnVf]YZ`g`l`c`i`X`V`Y`g`f`i`W`h`f`Y`X`h`c`]b`W`i`X`Y`h`Y`Z`c`k`]b[`Y`U`X]b[]g.

;eegW

H\]g`g`l`c`i`X`V`Y`g`i`W]b`W`h`k`c`c`f`h`f`Y`Y`g`Y`b`h`b`W`g`g`i`a`a`U`f]g]b[`h`Y`h`c`d]W`[]j`Y`U`b`]b`X]W]h]c`b`c`Z`k`U`h`h`Y`
V`f]Y`Z`k`]`W`c`j`Y`f`U`b`X`h`c`k`c`]h]g`X]f`Y`W`X`":`c`f`Y`I`U`a`d`Y`."C`d`h]c`b`g`Z`c`f`X`Y`W`Y`U`g]b[`h`Y`h`f`U`Z]W]b[`c`Z`<`Y`f`c]b`
U`c`b[`5`Z`U`b]g`h`U`b`g`k`Y`g`h`f`b`V`c`f`X`Y`f`"G`h`U`h`[]Y`g`h`c`Y`f`U`X]W]h`Y`";`i`]b`Y`U`k`c`f`a`X]g`Y`U`g`Y`]b`G`c`i`h`G`i`X`U`b`c`f`
b]h]U`h]j`Y`g`h`c`]b`W`Y`U`g`Y`d`f`c`W`g`g]b[`h`a`Y`c`Z`U`g`m`i`a`g`Y`Y`_`Y`f`g`]b[;`f`Y`Y`W`"-g]h`h`c`U`a`Y`a`V`Y`f`c`Z[`c`j`Y`f`b`a`Y`b`h`U`b`
c`Z]W]U`]b`U`b`]b`h`f`b`U`h]c`b`U`]b`g`h]h`h]c`b`#B;`C`Y`h`W`"

4SU]Ydag`V

h Uh\Uj Y VYYb Z bXUa YbHj]b XYZ]b]b['hY W ffYbhg]h Uh]cb'cf'dc`]Wm'

E fS] WZa VWdS` S'ke[e S` V UgddW f e[fgSf[a`

H\]g'gYW]cb'g\ci `X`j]bW XY`U`a cfY`XYHJ]YX`XYgW]dh]cb'cZk \Uh]g`UddYb]b[`bck "'H\Y`UbU`mg]g'g\ci `X`
\]` \]` \h hY`_Ym]ggi Yg'cZ hYbg]cb#VcbWfb`Zcf`X]ZYfYbhghU_Y\c`XYfg" H\]g'gYW]cb'g\ci `X`WYUfm
XYgW]VY`hY`W ffYbhX]Ya a U#dfcV`Ya #ggi Y`h.UhbYYXg`hc`VY`UXXfYggYX`UbX`Vmik` \ca "'`bW XYX`]b`h`g
gYW]cb'g\ci `X`VY`U`WYUf`]XYbh]Z]W]cb'cZ hY`a U]b'ghU_Y\c`XYfg`UbX`hY]f'dcg]h]cb'cb`hY`]ggi Y"

A bf[a` e

H\]g'gYW]cb'g\ci `X`ci h]bY`cdh]cbg`Zcf`UW]cb`UbX`dfcj]XY`Ub`UbU`mg]g`cZ hY`_]Y`mci hW`a Yg`]ZYUW
cdh]cb`]g`]a d`Ya YbhYX"'H\]g`a Um]bW XY`gca Y`UggYgga YbhcZk \Uh]mci `Ubh]W]dUHY`k ci `X`VY`hY`_]Y`m
fYgdcbgY`Zca`_Ymg]U_Y\c`XYfg`]b`fYUW]cb`hc`YUW`cdh]cb"'Mci`a UmbYYX`hc`]bW XY`U`W`a a Ybhc`k` \c
[U]bg`UbX`k` \c`cgYg"

E gYYWefW 3bbcbSUZ

6UgYX`cb`hY`U`Vcj Y`UggYgga YbhcZcdh]cbg`mci `bYYX`hc`]XYbh]ZmU`dfYZYffYX`cdh]cb`UbX`]ZUddfcdf]UHY
Y`U`VcfUHY`Z`fhYf`cb`k` \m]h]g`cdh]cb`]g`dfYZfUVY"'H\]g`]g`mci f`cddcfh] b]hmhc`YI`dUbX`cb`hY`VYbY]Z]g`hUh
k`]fYgi`hZca`gY`YW]b[`h]g`cdh]cb`-k` \c`VYbY]Z]g`k` \c`cgYg`UbX`k` \mgi W`Ub`ci hW`a Y`g\ci `X`VY`a cfY
UW]dUHY`hc`hY`[cj Yfba Yb]hW`a a i b]m]b]hYfYgh[fci dgZ`b]hYfbU]cbU`]bg]h]h]cbg`YfW'

DWJa_ _ W VSf[a` e

H\]g`]g`U`j YfmW`bW]gY`ghUHY`a Ybh hUhXYZ]bYg`hY`UW]cb`mci`fYW`a a YbX`]g`UXcdhYX"'`ia UmVY`U`gYf]Yg
cZfYW`a a YbXU]h]cbg`cf`U`g]a d`Y`fYeI`YghZcf`hY`YbXcYgYa YbhcZ hY`U`Vcj Y`ghUHY`[m`K` \UHY`Yf`mci`f
UddfcUW`hY`fYW`a a YbXU]h]cbg`g\ci `X`VY`Vf]Y`Z`WYUf`UbX`UW]cb'cf]YbhUHY`Y"["'`h]g`fYW`a a YbXYX`hUh
hY`; Yfa Ub`:]bUbW`A`]b]ghYfz

5 [fYY...

9bXcfY`hY`...

5ddfcj Y`hY`...

F YZ`gY`hc`gi`ddcfh`hY`dcg]h]cb`di`hVmg]U_Y\c`XYf`...

5Xj`]gY`ghU_Y\c`XYf`...`h.Uh]mci` \Uj`Y`XYW]XYX`...

9hW

5 HhYbXUbW'F Yei]fYa Ybhg

D'YUgY'fYUX'hAY [L.BGK'dc:Wmicb'5HhYbXUbW'UbX'5VgYbW'](#)

HHH: cf'h]g'Wci fgYžcbY'k YY_'mi b]hcZUHhYbXUbW'1'k YV'Wca dcbYbhUHhYbXUbW'5B8'gYa]bUf
UHhYbXUbW'HHH

HAY'GWcc''cZGcWU'GWYbW'g'YI dYWg'hUhgh XYbhg'k]''UHhYbX'UbX'dUfh]WdUH'UWij Y'm]b'%%\$i 'cZ
'YUfb]b['UbX'hUWk]b['UWij]h]Yg'hYbWZc'f'h 'WUggYg'ž'hc]bWi XY''YVh'fYgž'h'hc'f]U'gž'gYa]bUfgž'UVgž'cb']bY
UWij]h]Yg'UbX'gc'cb'

Zmci 'Uff]j Y'a cfY'hUb'%) 'a]bi hYg''UH'Zcf'Y]hYf'hAY'k YV'Wca dcbYbhicf'hAY'gYa]bUfž'mci 'a UmVY
fYVcfYX'Ug'UVgYbh'Zgi W'U'dYbU'm]g']a dcgYXž'mci 'k]''VY]bZcfa YX'j YfVU'mUh'hAY'YbX'cZWUgg'UbX
UXj]gYX']b'k f]h]b['k]h]b' (, ' \ci fg''5HhYa dhg'hc'ZU'g]ZmUHhYbXUbW'fYVcfXg'k]''VY'hYUH'X'Ug'gh XYbh
a]gWcbXi Wii bXYf'hAY [Gh XYbhA \]gWcbXi WdFcW Xi fYg'](#)

5''Udd']WU]cbg'Zcf'YI Ya dh]cb'Zca 'UHhYbXUbW'UhWUggYg'cZUbm_]bX'a i ghVY'a UXY']b'k f]h]b['hc'hAY
Wci fgY'Wcbj Ybcf'UbXž'k \YfY'Udd']WU'Yž'g'ci 'X'VY'UW'ca dUb]YX'VmUb'cf][]bU'cf'W'fh]Z]YX'W'c'mcZU
a YX]WU'W'fh]Z]WU'h'cf'chAYf'Zcfa 'cZUdd'fcd]U'h'Yj]XYbW'

Zmci 'UHhYbX''Ygg'hUb', \$i 'cZWUggYg'f]bWi X]b[]bgHUbW'g'k \YfY'mci 'a UmVY'dfYgYbh]b'hAY'k YV
Wca dcbYbhVi hXc' bchUHhYbX'hAY'gYa]bUfž'UbX'j]W'!j YfgUž'mci 'a UmVY'fYZ' gYX'Z]bU'



F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

;]j Yb`hY`fUb[Y`cZhd]Wg`Wcj YfYXz`bc`g]b[`Y`hYI hVcc_`]g`gi]hUV`Y`Ug`WcfY`fYUX]b[`Zcf`hY`Wci fgY"

5 ``]ghcZYggYbh]U`fYUX]b[g`]g`dfcj]XYX`Zcf`YUW`k YY_`cb`hY`5F HG' , %-`A ccX`Y`g]hY``H\YgY`UfY`hY`fYUX]b[g`k`Y`k`j``U``\Uj`Y`]b`Wta`a`cb``H\YgY`fYUX]b[g`a`i`gh`VY`fYUX`VYZcfY`hY`gYa`]bUfz`Ug`k`Y`a`Um`X]gW`gg`hYa`]b`XYhU]`UbX`#cf`XfUk`cb`hYa`g][b]Z]W]bhmiZcf`ga`U``[fci`d!VUgYX``YUfb]b[`UW]j]hYg`Xi`f]b[gYa`]bUfg` W]bhmiZcf`ga`U``[fci`d!VUgYX``YUfb]b[`UW]j]hYg`Xi`f]b[

? Y]h ? fUi gY`UbX`A]WUY`7`"K]`]Ua g`fYXg"Łž

Ufci bX`K YY_) žUbX`Zcfa U`ZYXVUW`hc k UfXg`hY`YbX`cZhY`hYfa`h`fci [\`I BGK `g`A m9I dYf]YbW
gi fj YmidfcWgg" =U`gc`k Y`Wta Y`j]bZcfa U`ZYXVUW`h`fci [\`ci hi`hY`Wci fgY`]b`cfXYf`h`Yj U`i UH`h`Y
YZYWj YbYgg`cZhY`Wci fgY`XYg][bž`Wcb`hYbhUbX`h`UW]b["Gh XYb`hg`UfY`U`gc`g`fcb[`mYbWci fU[YX`h`[]j Y
ZYXVUW`fZcfa U`cf`j]bZcfa U`E`cb`YUfb]b[`UbX`h`UW]b[`UWj]hYg`h`fci [\`ci hi`hY`Wci fgY"

Gi Va]gg]cb 'cZ5ggYgga YbhiHUg_g

Hi fb]h]b 'Gi Va]gg]cb

≠mci 'YbWci bHYf'U'dfcV'Ya 'k \Yb'UH'Ya dh]b['hc'gi Va]hirci f'Ugg][ba Ybhi'fci [\ 'Hi fb]h]bž'd'YUgY
HY'Yd\cbY'9I HYfbU'Gi ddcfhcb'- ' ,) " ' ' %cf'Ya U] 'h'Ya 'cb'YI HYfbU'HY'hgi ddcfh i bgk "YXi "Ui "'Gi ddcfh

5 WUXYa]W< cbYgmiUbX`D`U[]Uf]ga

D`U[]Uf]ga `]g`i`g]b[`h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[`h`Y`a` `U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`_`Y`a` `U`b`m`
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[`h`c` `U`W`W`Y`X`Y`b`h`U` `m`i`W`c`d`m]b[`Z`c`a` `U`g`c`i`f`W` `k`]h`c`i`h`U`W`_`b`c`k` `Y`X[`Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k`]b[`W`U`h`Y`[`c`f`]Y`g.

- i bXYfgHUbX'mci f'f][\hg'UbX'fYgdcbg]V']hYg'Ug'U'gh XYbhUhl BGK
-

5 WUXYa]W=Zcfa Uh]cb

: cf`YggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[`tc.

- fYeI Ygth]Zcf`YI hYbg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk `cZa Uf_g/
- I BGK `<YU`h`UbX`GUZY`mdc`]WYg/
- YI Ua]bUh]cb`dfcW`Xi fYg/
-