



MDIA2011

A YX]U'8Yg][b'Zcf'7 \Ub[Y

GYa YghYf'C bY''##'&\$%

GWcc``cZHAY'5ftg'UbX'A YX]U''##'1 BGK ``5ftg'UbX'GcWJU``GWYbWg



7ci fgY`Cj Yfj JYk

`GHUZZ7cbhUW`i8YHJ`g`

`7cbj Ybcfg`

B Ua Y	9a Uj`	5j Uj`UVj`]m	@cWUjcb	D\cbY
J U`YbhjbU`6U0	j "VUi 4 i bgk "YXi "Ui	Hi YgXUmgz %DA !&DA	K YVghYf' %%8	\$&'- ' ,) , - + (

GW\cc`7cbhUW`i`bZcfa Uhjcb

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

D\cbY. f\$&Ł'- ' ,) '(,) *

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

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

H\Y`GW\cc`cZhY`5fng`UbX`A YX]U`k ci `X`_]Y`hc`F YgdYWz`m5W_bck`YX[Y`hY`HfUX]hcbU`7i`ghcX]Ubgz`hY`6YXY[U`fP`Ybg]b[hcb`WUa`di`gŁz;`UX][U`f7`]mUbX`5fh/`8Yg][b`7 Ua`di`gYgŁ`UbX`hY`B [i`bbUk`U`dYcd`Y`f5i`ghfU]Ub`8YZ`bWV: cfW`5WUXYa`m]b`7 UbVYffUŁcZhY`UbXg`k`YfY`YUW`WUa`di`g`cZI`BGK`]g`cWUHYX"

5 hY`bXUbW`F`Yei`]fYa`Ybhg

5`ghi`XYbh]g`YI`dYW`X`hc`UhY`bX`U`WUgg`W`b`hUW`i`ci`fg`Zcf`U`ZJW`!`h!`ZJW`ifl`&`Ł`cf`V`Yb`XYX`W`i`fgY`UbX`W`a`d`Y`h`U`U`W`j`]hYg`Zcf`U`V`Yb`XYX`cf`Z`mcb`]bY`W`i`fgY"

5`ghi`XYbhk`c`Uffj`Yg`a`cfY`h`Ub`%)`a`]bi`hYg`U`h`a`UmVY`dYbU`]gYX`Zcf`bcb!`UhY`bXUbW`"Zgi`W`U`dYbU`m

: cf`YggYbh]U`gh XYbh]bZcfa Uhcb`fY`Uh]b[`rc. `fYeI Ygrg`Zcf`YI hYbg]cb/fYj]Yk `cZa Uf_g/cVW dUhcbU`\\YU`h
UbX`gUZ`hm/YI Ua]bUhcb`dfcW`Xi fYg/gdYW]U`Wcbg]XYfUhcb`]b`hY`Yj YbhcZ]`bYgg`cf`a]gUXj Ybh fY/
gh XYbhYeI]mUbX`X]gUV]`]m`UbX`ch`Yf`YggYbh]U`UWXYa]W]bZcfa Uhcbž
gYY`[\hdg.#k.k"Ufng"i bkg "YXi "Ui #W ffYbhgh XYbng#UWXYa \]W\]bZcfa Uhcb#dfcfcW`g!\[i \]XY`\]bYg#](#)

7ci fgY'8YHJ`g

7fYX]hDc]bhr '*`

Gi a a UfmcZhY'7ci fgY

EgTWUf3dMS. A YXJU

ቅ'ከ]g'ቂi fgYžmci 'k]`XYj Y'cd'gdYWU]gh_bck `YX[Y'cb'ከY'i gY'cZከY'a YX]U'Zcf']bከfbUከcbU`
XYj Y'cda Ybhk cf_`H\fc i [\ 'ከY'XYg][b'cZU'a YX]U'dfc YWከUf[Yከ]b[]ggi Yg'ከUከUZZYWከY`j Yg'cZdYcd'Y
]b'gca Y'cZከY'a cghX]gUXj UbከU[YX'UfYUg'cZከY'k cfXžmci 'k]`YUfb'\ck 'ከ WfYUከ' a YX]U'ghfUከ[]Yg'ከUከ
dfca cከ'dcg]ከj Y'VY\Uj]ci f'UbX'gcWU'`WUUb[YžUbX'k \]W'`WU`i 'ከa Uከ'mከfUbgZcfa 'dYcd'Yከ`j Yg`K \]Y
ከYfY]g'Ub'Ya d\Ug]ከXUmcb'ከY'i gY'cZgcWU'`a YX]U'UbX']bbcj Uከj Y'ከWbc'c[]Yg'ከ'UXj cWUከ'`WUUb[Yž
]b'ከ]g'ቂi fgY'k Y'UfY'fYa]bXYX'ከUከW`a a i b]Wከ]cb'`WUUbY'g'j Ufmc'b'ከY'`VUg]g'cZU'W`i bከfከ] YW`bca]W
UbX'gcWU'`W`bከI h'a cfYcj YfžX]ZYfYbW'g']b'Yከb]WUW`[fci bXž'`Ub[i U[Yž[YbXYfž`Yj Y'`cZ']ከfUWከUbX
i fVUb'ከ'fi fU'`gYከ]b[g'UfY'W' WU'`j Uf]UV'Yg'k \Yb'k Y'`cc_`UከXYj Y'cda YbhW`bከI ከg`H\fc i [\ 'ከ]g'ቂi fgYž
mci 'k]`k cf_`ከk UfXg'`U'WfYUከj Y'i gY'cZVcከ'`bYk 'UbX'ከfUX]ከcbU'`a YX]U'd'UከZcfa g'ከ'UW`]Yj Y'`WUUb[Y`

5ከከY'W`bWi g]cb'cZከ]g'ቂi fgY'ከY'gከ XYbhk]`VY'UV'Y'ከ

%`8]gW gg'UddfcUWYg'ከ'a YX]U']b']bከfbUከcbU`XYj Y'cda Ybhk cf_`UbX'YI d'U]b'fY'Yj UbከከYcYከWU`
UbX'W`bW`dከ U'`ZUa Yk cf_g'Zcf'XYj Y'cda YbhUbX'gcWU'`WUUb[Y`
&`9j U'i Uከ'ከY'fc'Y'cZከY'a YX]U'UbX'a YX]U'dfUW`W']b'XYj Y'cd]b[`W`bከI ከg`
'`8Yg][b'U'fYgYUfW`d'Ub'Zcf'ከY'dfcXi W]cb'cZW`ከ fU` jUbX` \$%o%o ! fmfib

5ggYgga Ybh

D`YUgY`i gY`< Ufj UFX`F`YZFYbW]b[`GhmY`Zc`f`U`"UggYgga Ybhg" 5`ei]W_`[i]XY`hc`h`Y`i gY`c`Z`h`jg`ghmY`WUb`VY`Zi bX`\\YfY`.

[\hdg.#k k k "X\]h\]Y#a YX\]U#\]VfUfm#XcW a Ybhg#8 #i. &\\$@\]VfUfm &\\$<Ufj UfXi &\\$E i \]Wl &\\$: i \]XY"dXZ](#)

5`gi a a UfmcZ`h`Y`UggYgga YbhUbX`i gYZ` ``fYgci fWg`Zc`f`h`jg`Wc`i fgY`WUb`U`gc`VY`Zi bX`i]b`h`Y`5ggYgga Ybh XcW`a`Ybhcb`A`ccX`Y`"

5ggYgga YbhHUg_g`

5ggYgga YbhHUg_	K Y][\h	8i Y`8UH`	Gh XYbh@YUfb]b[Ci hWc`a`Yg`5ggYggYX
@]hYfUhi fY`fYj]Yk`	` \$i	&) #`\$` #&\$%` `\$,`.\$`\$`DA	%&
A YX]U`dfc`Y`W`id`Ub`) \$i	\$* #`\$) #&\$%` `\$,`.\$`\$`DA	&Z
J]XYc`dfYgYbhU]cb`	&\$i	Hi hc]U`g`K`YY`_%	&Z(

5ggYgga Ybh8YHJ]`g`

5ggYgga Ybh%`@]hYfUhi fY`fYj]Yk`

GHUfhXUH`. Bch5dd`]WUV`Y`

@Yb[h. `%)` \$\$`k` cfxg`

8YHJ]`g. `%)` \$\$`k` cfxg`"H\]g`jg`h`Y`Z]fghUggYgga YbhHUg_": YYXVUW_`k`j`VY`dfcj`]XYX`]b`k`f]hYb`Zcfa`UbX`bi`a`Yf]W`][`fUXY`"

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

h`h`jg`%)` \$\$!`k` cfx`YggUmz`mci` `k`j`c`ZYf`Ub`cj`Yfj`]Yk`c`Z`h`Y`h`YfUhi`fY`]b`h`Y`Z]Y`X`c`Za`YX]U`Zc`f`XYj`Y`cda`Ybhz`cc_]b[`UhVY\Uj`]ci`f`W`Ub[`Y`h`Y`cf]Yg`z`gc`W]U`a`Uf`_`Y]b[`z`gc`W]U`W`Ub[`Y`z`Y`Xi`HJ]ba`Ybhz`Wc`a`a`i`b]mi`UbX`dUfh]W]dUhc`fma`YX]U`H`Y`Wc`bhY`bhc`Zmci`f`YggUmk`j`fYj`c`j`Y`Ufci`bX`h`Y`h`h`Y`c`Z`A`YX]U`Zc`f`8Yj`Y`cda`Ybh`h`Y`cfm]Xf]j`Yb`Uddfc`UW`Yg`]b`i`g]b[`h`Y`a`YX]U`Zc`f`W`Ub[`Y`"Hc`dfc`Xi`W`h`jg`k`cf`_`z`mci`g`l`ci`X`i`h`j]g`Y`U`a`]b]a`i`a`c`Z,`UWUXYa`]Wgci`fWg`"

Hi`fb]h]b`g`YH]b[`. H\]g`Ugg][`ba`Ybh]g`gi`Va`]hYX`h`fci`[`\`Hi`fb]h]b`UbX`ghi`XYbhg`Xc`bchgYY`Hi`fb]h]b`g]a`]Uf]mifYdcf]g`"

5ggYgga Ybh&`A`YX]U`dfc`Y`W`id`Ub`

GHUfhXUH`. Bch5dd`]WUV`Y`

@Yb[h. `&)` \$\$`k` cfxg`

8YHJ]`g. `&)` \$\$`k` cfxg`": YYXVUW_`k`j`VY`dfcj`]XYX`]b`k`f]hYb`Zcfa`UbX`bi`a`Yf]W`][`fUXY`"

5XX]h]cbU`XYHJ]g.

⊖`h]g]&) \$\$!k cfX`fYdcfz`mci `k]`dfYgYbhmc`i f`a YX]U`dfc`YW`id`Ub`UbX`X]gW`gg`h`Y`ghY`dg`hU`_Yb`hc`k`UfXg`]hg`XYg][`b`"

: cf`h`Y`dfc`YW`h`XYg][`b`z`mci `k]`VY`dfcj`]XYX`k`]h`U`W`c]W`cZ` `X]ZY`fY`b`h`a`YX]U`dfc`YW`h`g`W`b`Uf]c`g`fY`U`h`X`h`c`X]ZY`fY`b`h`XY`j`Y`c`d`a`Y`b`h`]g`g`i`Y`g`]b`g`d`Y`W`Z`W`W`e`i`b`f`]Y`g`c`Z`h`Y` ; `c`V`U`G`c`i`h`"6`U`g`Y`X`c`b`h`Y`g`W`b`Uf]c`c`Z`mci`f`W`c]W`z`mci`k`]`k`c`f`_`k`]h`c`h`Y`f`g`h`i`X`Y`b`h`g`c`b`h`Y`Z`c`k`]b[`U`W`h`j`]h`Y`g`X`i`f`]b[`h`h`c`f]U`g.

%`g`Y`h`]b[`W`Y`U`f`c`V`Y`W`h`j`Y`g`Z`c`f`h`Y`a`YX]U`dfc`Y`W`h`
&`XYg][`b]b[`U`f`Y`g`Y`U`f`W`d`Ub`h`c`[`U`h`Y`f`]b`Z`c`f`a`U`h`c`b`c`b`h`Y`]g`g`i`Y`h`Y`a`YX]U`dfc`Y`W`h`k`U`b`h`g`h`c`U`X`X`f`Y`g`g`z`
]b`W`i`X]b[`d`f]a`U`f`m`f`Y`g`Y`U`f`W`a`Y`h`c`X`g`z`d`c`d`i`U`h`c`b`z`U`b`X`g`U`a`d`Y`g`Y`Y`W`h`j`c`b`/
'`" `W`c`b`X`i`W`h`]b[`X`Y`g`_`f`Y`g`Y`U`f`W`c`b`h`Y`]g`g`i`Y`h`Y`W`U`a`d`U][`b`]g`h`f`m]b[`h`c`U`X`X`f`Y`g`g`z`k`]h`d`U`f`h`W`U`f`U`h`Y`b`h`c`b`
d`U]X`h`c`W`h`i`f`U`z`f`Y`][`c`i`g`U`b`X`h`f`U`X]h`c`b`U`g`Y`h`j]b[`g`/
(`f`Y`g`Y`U`f`W`]b[`h`Y`a`YX]U`Ub`X`g`W`U`d`Y`c`Z`h`Y`W`e`i`b`f`m`h`Y`a`YX]U`dfc`Y`W`h`k`]`V`Y`]a`d`Y`a`Y`b`h`X`]b`/
)`f`Y`g`Y`U`f`W`]b[`U`b`X`]X`Y`b`h`Z`h`]b[`Y`Z`Y`W`h`j`Y`a`YX]U`W`U`b`b`Y`g`c`b`h`Y`V`U`g]g`c`Z`h`Y`W`h`i`f`U`z`d`c`]h`W`U`U`b`X`
h`Y`W`b`c`c`[]W`U`f`Y`U`]m`c`Z`h`Y`W`e`i`b`f`m`/
*`]X`Y`b`h`Z`h`]b[`U`d`d`f`c`d`f]U`h`Y`a`Y`g`g`U[`Y`g`h`c`f`Y`U`W`h`Y`h`U`f[`Y`h`U`i`X]Y`b`W`/
+`XY`j`Y`c`d]b[`W`Y`U`f`]X`Y`U`g`c`b`U`b`X`X]g`W`gg]b[`]b`X`Y`H`J]g`h`Y`a`YX]U`c`i`h`d`i`h`g`h`c`V`Y`W`Y`U`h`X`Z`c`f`h`Y`
d`f`c`Y`W`h`
,`" `c`i`h`]b]b[`U`d`Ub`Z`c`f`a`c`b]h`c`f]b[`U`b`X`Y`j`U`i`U`h`c`b`"

9UW`g`h`i`X`Y`b`h`k`]`h`Y`b`d`f`Y`d`U`f`Y`U`b`]b`X]j`]X`i`U`k`f]h`Y`b`W`c`a`d`c`b`Y`b`h`g`Y`W`h`j`c`b`c`Z`h`Y`a`YX]U`d`Ub`z`k` \]W`k`]`V`Y`
g`i`V`a`]h`Y`X`U`g`c`b`Y`W`c`Y`g`j`Y`X`c`W`a`Y`b`h`M`c`i`k`]`V`Y`a`U`f`Y`X`c`b`h`Y`g`Y`W`h`j`c`b`c`Z`h`Y`d`Ub`m`c`i` \U`j`Y`d`f`c`X`i`W`X`z`
U`b`X`c`b`]h`g`f`Y`Y`j`U`b`W`h`c`U`b`X`W`c`Y`f`Y`b`W`k`]h`h`Y`f`Y`g`h`c`Z`h`Y`d`Ub`"

Hi`fb]h]b`g`Y`h`j]b[.`H`h]g`U`g`g][`ba`Y`b`h]g`g`i`Va`]h`Y`X`h`f`c`i`[`h`i`fb]h]b`U`b`X`g`h`i`X`Y`b`h`g`X`c`b`c`h`g`Y`Y`h`i`fb]h]b`
g]a`]U`f]m`f`Y`d`c`f`h`g`"

5ggYgga`Ybh`.`J`]X`Y`c`d`f`Y`g`Y`b`h`U`h]c`b`

GhUfhXU`h`Y`. `B`c`h`5`d`d`]W`V`Y`

@Yb[`h`. `(`a`]b`i`h`Y`g`f`j`U`f]U`V`Y`V`U`g`Y`X`c`b`[`f`c`i`d`g]h`Y`L`

8YHJ]g.`;`f`c`i`d`d`f`Y`g`Y`b`h`U`h]c`b`f]b]j`]X`Y`c`Z`c`f`a`U`h`c`Z`(!)`g`h`i`X`Y`b`h`g`"H`h`Y`f`Y`e`i`]f`Y`X`Y`b[`h`c`Z`h`Y`j`]X`Y`c`]g`U`
a`U`i`]a`i`a`c`Z`(`a`]b`i`h`Y`g`"H`h]g`]g`h`Y`Z]b`U`U`g`g`Y`g`g`a`Y`b`h`U`g`_`Z`c`f`U`h`Y`b`X`U`b`W`d`i`f`d`c`g`Y`g`".`Y`Y`X`V`U`W`_`k`]`V`Y`
d`f`c`j`]X`Y`X`]b`k`f]h`Y`b`Z`c`f`a`U`b`X`b`i`a`Y`f]W`U`[`f`U`X`Y`U`g`U`[`f`c`i`d`a`U`f`_`"

5XX]h]cbU`XYHJ]g.

9UW`[`f`c`i`d`k`]`g`i`Va`]h`U`(`a`]b`i`h`Y`c`b[`j`]X`Y`c`d`f`Y`g`Y`b`h`U`h]c`b`f`X`Y`d`Y`b`X]b[`c`b`h`Y`g]h`Y`c`Z`h`Y`[`f`c`i`d`L`z`
]`i`g`h`U`h]b[`h`Y`X`Y`g][`b`c`Z`c`b`Y`a`YX]U`c`i`h`d`i`h`h`U`h`k`U`g`]b`W`i`X`Y`X`]b`h`Y`f`d`f`c`Y`W`h`d`Ub`"G`h`i`X`Y`b`h`g`W`U`b`i`g`Y`g`h`
]a`U`[`Y`g`z`U`b]a`U`h]c`b`U`b`X`j`]X`Y`c`Z`c`h`U`[`Y`z`c`f`U`W`c`a`V]b`U`h]c`b`c`Z`h`Y`g`Y`z`U`b`X`d`f`Y`d`U`f`Y`U`b`U`f`U`h]c`b`U`g`U`i`X]c`

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Gh XYbng`UfY`YI dYW`X`hc`di h`h`Y]f`bUa Yg`UbX`gh XYbhbi a VYfg`cb`Yj YfmdU[Y`cZ`h`Y]f`Ugg][ba Ybhg"

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

≠mci`YbWci bhYf`U`dfcV`Ya`k`Yb`U`h`Ya`dh]b[`hc`gi Va]hmcif`Ugg][ba Ybh`h`fci [`h`Hi`fb]h]b`z`d`YUgY`h`Yd`cb`Y`9I`h`fb`U`Gi`ddcfhcb`-`,`,)````%cf`Ya`U]`h`Ya`cb`[YI`h`fb`U`h`h`gi`ddcfh`i`bgk`"YXi`"Ui](#)

f`G][b]Z]WbhmUZZYWhmci f`dYfZcfa UbWV`]b`UggYggUV`Y`k cf_žVY`]hU`Zcfa U`YbX!cZgYa Yghf`YI Ua]bUh]cbžU
WUgg`hYghž`U`UVcfUhc fmi`hYghž`U`gYa]bUf`dfYgYbUh]cb`cf`Ubmich`Yf`Zcfa`cZUggYgga`Ybh`

: cf`Z`f`Yf`XYH]`g`]b`fY`Uh]cb`hc`GdYWU`7`cbg]XYfUh]cb`]bW]X]K[``K`Yb`hc`5dd`mž`<ck`hc`5dd`m`UbX
`Gi`ddcfh]b[`8cW`a`YbUh]cb`d`YUgY`fYZf`hc`h`Y`GdYWU`7`cbg]XYfUh]cb`k`YVgh]Y.`
`h`dg.`#`gh`XYbh`i`bgk`"YXi`"Ui`#`gdYWU`!`W`cbg]XYfUh]cb

5 WUXYa]W<c bYghmiUbX`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" `hWUb`hU_Y`a Ubm
Zcfa gž Zca `XY`]VYfUHy`WXYUh]b[`hc`UWV]XYbU`miW`cdm]b[`Zca `U`gci fW`k]hci 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`hYI hcf]XYU`k]hci hUW_bck `YX[]b[`hY
gci fW`cf`i g]b[`ei ch]cb`a Uf_g`H\]g`U`gc`Udd`Yg`hc`ja U[YgžUfhUbX`XYg][b`dfc`YWgžUg`k Y`Ug
dfYgYbU]cbg`k \Yfy`gca YcbY`dfYgYbh]g`Ubc`hYf`g:]XYUg`cf`k cfXg`k]hci hWYX]hY[cf]Yg.

- VYhYf'a UbU[Y'mci f'h]a Y
- i bXYfgHUbX'mci f'f][\hg'UbX'fYgdcbg]V']hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'W'dmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'l gY'cZ
I BGK '⇒H'F Ygci fW'g'Dc`]Wñ
-

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

B #5

F YWca a YbXYX`F Ygci fWg

D`YUgY`j`]Yk`h`Y`5ggYgga YbhXcW a Ybhcb`A ccX`Y"

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

hZcfa U`ZYXVUW`cb`h`Y`Wci fgY`k`j`VY`gci [\h`h`fci [\`Ub`]b!WUgg`ei Ygh]cbbU]fY`Xi f]b[`h`Y`Wci fgY`cZ`h`Y`gYa Ygh`f"

: cf`Z]bU`Wci fgY`Yj U`i Uh]cb`z`gh`XYbh`g`k`j`fY`W]j`Y`U`]b`_`h`h`Y`A`m`9l`dYf]YbW`gi`fj`Ym`h`c`k`UfXg`h`Y`YbX`cZ`h`Y`gYa Ygh`f"

⇒ U[Y`7`fYX]h

6cX]Yg/`h`Y`f`Z]W`g`&`\$`%`*`

7F ⇒ CG

7F ⇒ CG`Dfcj`jXYf`7cXY`.\$\$\$`-`,`;`