

MDIA2005

5Xj Yfhjg]b[. H\Y77fYUhjj Y8]a Ybg]cbg

HYfa 'CbY''##'&\$&%

7ci fgY[·]Cj Yfj]Yk

GHJZZ7cbHJWh78YHJ]`g

7 cbj Ybcfg

BUa Y	9a U]`	5j U]`UV]`]m	

7ci fgY[·]8YHJ]`g

7 fYX]hDc]bhg^{·*·}

Gi a a UfmcZh\Y'7ci fgY

5Xj Yfilg]b[`]g`U`WfYUljj Yž'UbX`Uhilja Ygž'Weblfcj Yfg]U``Wea a i b]WUljj Y`[YbfY'lk Uhid`Umg`U`WfblfU``fc`Y`]b Vebgi a Yf`W``hi fY''`H\]g`Wei fgY`k]```WkU``Yb[Y`mci `he`Webg]XYf`beheb`mik\Y`WfYUljj Y`X]a Ybg]ebg`cZ UXj Yfilg]b[`Vi hU`ge`he`Webg]XYf`U`gi ghU]bUVY`geWJU``fe`Y`Zef`UXj Yfilg]b[''Mei `k]```VY`WkU``Yb[YX`he XYj Y`ed`Ub`i bXYfgHUbX]b[`cZh\Y`fY`Uljebg\]d`VYłk YYb`UXj Yfilg]b[`UbX`WfYUljj]miUbX`ZeW g`eb`\ek `he XYj Y`ed`]bbej Uljj Y`ge`i hjebg`he`WebhYa defUfmUbX`geWjU``Wea a i b]WUljeb`dfeV`Ya g''H\Y`Wei fgY`k]```\Uj Y U`g][b]ZJWUbhUdd`]YX`Wea debYbh`mci `k]``ZeW g`eb`XYj Y`ed]b[`H\Y`WfYUljj Y`X]a Ybg]ebg`Zef`Ub`UXj Yfilg]b[WUa dU][b`fY`UhYX`he`U`WebhYa defUfmigeWjU``]ggi Y`UbX`Yb[U[Y`]a U[]bUhjj Y`mk]h``U[YbWnVf]YZgžYl Ua]bY \ek `]XYUg`UfY`WfYUhjj Y`mYl dfYggYX`i g]b[`k efXg`UbX`]a U[Yg`UbX`XYj Y`ed`UXj Yfilg]b[`WebWfdhgždfYdUfY U`WfYUhjj Y`d]hWxžUbX`Yl d`efY`h\Y`ghefmihY``]b[`UbX`Wedmik f]h]b[`X]a Ybg]ebg`eZUXj Yfilg]b[''

7cifgY`@YUfb]b[`CihWcaYg

5ggYgga Ybh

H\]g`]g`dfcj]XYX`Ug`U`[YbYfU``[i]XY`!`d`YUgY`gYY`A ccX`Y`Zcf`UggYggaYbhXYfU]`"

 $\label{eq:balance} BchY.~^5gg][baYbh&~UbX~~~a ighVY~giVa]hhYX~]b~cfXYf~hc~dUgg~h\lambda]g~VcifgY~~$

5ggYgga YbhHUg_g

5ggYgga YbhHJg_	K Y][∖h	8iY`8UhY	GhiXYbhï@YUfb]b[CihWcaYgʻ5ggYggYX
Cb`]bY`fYZYWAjjY`kf]hjb[`HUg_`)	Bch5dd`]WUV`Y	%ž`&
7 f]h]WU``5bU`mg]g	()।	Bch5dd`]WUV`Y	%ž`&ž`'Ž`(Ž')

GHUfh'XUHY.

5 HYbXUbWYFYei]fYaYbhg

5 hh/bXUbW/rk]``VY'HU_Yb"`+'ci hcZ- ``YWh fYgžh hcf]U`g'UbX'k YV'Zcfi a g'a i ghVY'Uhh/bXYX`]b'cfXYf'hc'dUgg h\]g'Wci fgY"

7 ci fgY GWX YXi `Y

J]Yk WUgg'ha YHJYY

H]a YHJV`Y'

8 UHY	Hmd Y	7 cbhYbh
K_YY_`%`%)`: YVfi Ufm'!`%- : YVfi Ufm	@YWhifY	=bhfcXiWh]cbhcWcaaYfW]U`WfYUh]j]hmUbXU WfYUh]jYWcbWYdh'
		FYZYf*hc*AccX`Y*Zcf*Zfh\Yf*XYhU]`g"
	Ghi X]c	K∖UhaU_YgʻUʻ[ccXʻUX"ʻ=bhfcXiWh]cbʻhcʻh∖Y WfYUh]jYʻVf]YZ"
		Nci∵k]``fYW¥]jY`mcif`Z]fghWfYUh]jY`Vf]YZg`hc`kcf_`cb Zcf`mcif`dcfhZc`]c"
		FYZYf*hc*AccX`Y*Zcf*Zfh\Yf*XYhU]`g"
	Cb`]bY⁻5₩Mjj]hm	FYZYf"hc"AccX`Y"Zcf"Zfh\Yf"XYhU]`g"
K_YY_`&.`&&`: YVfi Ufm!`&* : YVfi Ufm	@YWhifY	7fYUh]jY`h\]b_]b[`UbX`WfYUh]jY`dfUWh]Wf"`
		FYZYf"hc"AccX`Y"Zcf"Zfh\Yf"XYhU]`g"
	Gh X]c	6f]b[`mcif`]b]h]U``WfYUh]jY`WcbWfdhg`Zcf`h\Y`Z]fgh dcfhZc`]c`W]b]W
		FYZYf"hc"AccX`Y"Zcf"Zfh\Yf"XYhU]`g"
	Cb`]bY`5WMjj]hm	FYZYf"hc"AccX`Y"Zcf"Zfh\Yf"XYhU]`g"
K YY_'' .*%`A UfVX '!`) A UfVX	@Y₩h fY	A U_]b['a YUb]b["
		FYZYfîhcîAccXîYîZcfîZfh\YfîXYhU]`g"
	Gh X]c	H\Y`gYWcbX`dcfhZc`]c`W]b]W
		FYZYf"hc"AccX`Y"Zcf"Zfh\Yf"XYHJ]`g"
	Cb`]bY`5WMjj]hm	FYZYf"hc"AccX"Y"Zcf"ZfhXYf"XYhU]`g"
k yy_`(.`, `A ufvX`!`%& A ufvX	@Y₩i fY	I bXYfgHJbX]b['dYcd`Yži bXYfgHJbX]b[']bg][\H'
		FYZYf"hc"AccX`Y"Zcf"Zfh\Yf"XYhU]`g"
	GH X]с	H∖Y`h∖]fX`dcfhZc`]c`W]b]₩°
		FYZYf"hc"AccX`Y"Zcf"Zfht\Yf"XYhU]`g"
	Cb`]bY`5WMjj]hm	FYZYf"hc"AccX`Y"Zcf"Zfh\Yf"XYhU]`g"
K YY_`).`%) ^A UfVX`!`% A UfVX	@YWhifY	HY``]b['dck YfZ `'VfUbX'ghcf]Yg"'
		FYZYf'hc'AccX`Y'Zcf'Zfh\Yf'XYhU]`g"

	Gh X]c	H∖Y'Zcifh∖'dcfhZc`]c'W]b]W	
		FYZYFinciAccXiYiZcfiZiftNYfiXYfU]jg"	
	Cb`]bY`5Whjj]hm	FYZYF1c AccX1Y Zcf2 ft\YfXYHJ]`g"	
K_YY_`*.`&&`A_UfWX`!`&* A_UfWX	FYUX]b[: `YI `k YY_'! `bc `WUggYg"	
K YY_`+.`&- `A UfWX`!`& 5df]`	@YWhifY	5[YbW]Yg`UbX`W]Ybhg.`h\Y`kcf_]b[`fY`Uh]cbg\]d"	
		FYZYF'hc'AccX`Y'Zcf'Z_fh\Yf'XYhU]`g"	
	Gh X]c	H\Y`Z]Zh\`dcfhZc`]c`W]b]W	
		FYZYf*hc*AccX*Y*Zcf*Zfh\Yf*XYhU]`g"	
	Cb`]bY'5WMjj]hm	F YZYf'hc `A ccX`Y 'Zcf'Z fh\Yf'XYhU]`g"	
K YY_', .') '5df]`'!'- '5df]`	@YWifY	7 fYUhjj]hmi]b Ub Yj c`j]b[`a YX]U``UbXgWUdY''	
		FYZYFihciAccXiYiZcfiZifh\YfiXYHU]`g"	
	Gh X]c	H\Y`Z]bU``dcfhZc`]c`W]b]W	
		FYZYF1c AccX1Y Zcf2 ft\Yf1XYfU]`g"	
	Cb`]bY`5Whjj]hm	FYZYF1c AccX1Y Zcf2 ft\YfXYHU]`g"	
K_YY_'`%&`5df]`'!`%* 5df]`	@YWhifY	D]HWX]b['mcif]XYUg"	
		FYZYF1c A ccXiY Zcfi]bZcfa Uh]cb"	
	Gh X]c	H\Y`dcfhZc`]c`UbX`d]hWX`dfYdUfUh]cb"`	
		FYZYFihciAccXiYiZcfiacfYi]bZcfaUh]cb"	
	Cb`]bY′5₩njj]hm	FYZYFhc A ccX`Y`Zcf`]bZcfa Uhjcb"	
K YY_`%\$.`%-`5df]`'!`&' 5df]`	@YWhifY	H\Y`ZihifY`cZ`h\Y`WfYUh]jY`WcbWYdh'	
		FYZYFihciAccXiYiZcfiZifh\YfiXYHU]`g"	
	Gh X]c	H\Y'dcfhZc`]c'd]hW\"	
		FYZYFinciAccXiYiZcfiZifth\YfiXYHJ]`g"	
	Cb`]bY⁻5₩Mjj]hm	FYZYFinciAccXiYiZcfiZifthYfiXYHU]`g"	

F Ygci fWg

DfYgWf]VYX F Ygci fWyg

H\Y'UXjYfh]g]b['WcbWfdhVcc_Ž6UffmžD"'f&\$%*Ł

H\]gʻ]gʻ\][\`mfYWda a YbXYX"``K \]`Y`mci `Xc`bch\Uj Y`hc`Vi m]hž`]hk]```VY`]a a YbgY`m\Y`dZ ``hc`mci `]Zmci Xc"

FYWca a YbXYX FYgci fWYg

D`YUgY`fYZYf`hc`AccX`Y`Zcf`gcifWYg"

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

H\Y`Wci fgY`Wcbj Ybcf`UbX`hi hcfg`k Y`Wca Y`]bZcfa U``ZYYXVUW_`UVci ht\Y`Wci fgY`h\fci [\ci ht\Y`gYa YghYf" : i ft\Yfa cfYž`ghi XYbhg`UfY`YbWci fU[YX`hc`dUfh]W]dUhY`]b`cb`]bY`ZYYXVUW_`gi fj Ymg``UhYf`]b`h\Y`gYa YghYf"`5b Ya U]``k_]```VY`gYbhhc`U```ghi XYbhg`UXj]g]b[`k\Ybž`k\YfYž`UbX`\ck_`hc`dfcj]XY`ZYYXVUW_"

D`YUgY'HU_Y'H\Y'H}a Y'hc`dfcj`]XY'ZYXVUW_"'=b`fYWYbhmYUfg'H\Y'Wci`fgY`\Ug'VYYb`W\Ub[YX'Ug'U'fYgi`hcZ ghi XYbh]bdi h': cf`YI Ua d`YžH\Y'Wci`fgY`UggYgga Ybh\Ug'VYYb`W\Ub[YX'Zfca`'U'[fci`d`Ugg][ba Ybhhc`Ub]bX]j`]Xi U``WfYUHj`Y'dcfhZc`]c`Ugg][ba Ybh' Gi Va]gg]cb cZ5ggYgga YbhHUg_g Hi fb]h]b Gi Va]gg]cb

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

D`U[]Uf]ga `]g`i g]b[`f\Y`k cfXg`cf`]XYUg`cZcf\Yfg`UbX`dfYgYbh]b[`f\Ya `Ug`mci f`ck b"`=fiWUb`hU_Y`a Ubm Zcfa gžZfca `XY`]VYfUHY`W\YUh]b[`fc`UWN]XYbhU``mWcdm]b[`Zfca `U`gci fW'k]h\ci hUW_bck `YX[Ya Ybh'

I BGK '[fci dg'd`U[]Uf]ga ']bhc'h\Y'Zc``ck]b['WUhY[cf]Yg.

7 cdm]b[. `i g]b[`h\Y`gUa Y`cf`j Yfmig]a]`Uf`k cfXg`hc`h\Y`cf][]bU``hYI h`cf`]XYU`k]h\ci h`UW_bck`YX[]b[`h\Y

- i bXYfgHJbX'mci f`f][\hg`UbX'fYgdcbg]V]`]h]Yg`Ug`U`ghi XYbh'Uh'I BGK
- VY Uk UfY cZdU[]Uf]ga žWcdmf][\lbzi BGK Ghi XYbh7 cXY cZ7 cbXi Wh0bX 5WW/dhUVY I gY cZ I BGK '=7 H'F Ygci fW/g'Dc']Wh
- VY Uk UfY cZh Y gHUbXUfXg cZVY Uj]ci f YI dYWYX cZYj YfmcbY]b h Y I BGK Wca a i b]m
- `cWUHY'gYfj]WYg'UbX']bZcfa UHjcb'UVci hI BGK 'UbX'I BGK '@VfUfm

Gca Y'cZh\YgY'UfYUg'k]``VY'ZJa]`]Uf'hc'mci ž'ch\Yfg'k]``VY'bYk"'; U]b]b[`U'gc`]X'i bXYfgHJbX]b[`cZU``'h\Y fY`UhYX'UgdYWfg'cZ9@=G9'k]``\Y`d'mci 'a U_Y'h\Y'a cghcZmci f`ghi X]Yg'Uh'I BGK "' <u>\hhd.#gi VYWf[i]XYg'`]VfUfm'i bgk "YXi "Ui #Y`]qY#UVci hY`]qY</u>