



City of Richmond

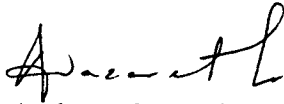
Report to Committee

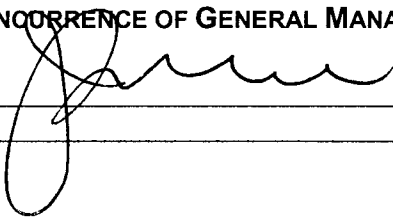
To: Finance Select Committee
From: Andrew Nazareth
Director of Finance
Re: **Calculation of Property Tax Rates**

Date: January 30, 2003
File: 0925-01

Staff Recommendation

That the attached report from the Manager of Taxation regarding the Calculation of Property Tax Rates be received for information.


Andrew Nazareth
Director of Finance

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ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
		

Staff Report

Origin

At the request of the Chair, this report will address the basic fundamentals of tax rate calculation within a municipal setting.

Analysis

Each year in early January, the City receives the Completed Roll from BC Assessment detailing the assessed values of all properties within Richmond’s jurisdiction. Concurrently, property assessment notices are sent to all property owners in BC. Appendix I provides a flowchart of the assessment process from the Completed Roll to the Authenticated Roll. It is important to remember that in the month of January, many properties are being appealed and the final Authenticated Roll assessment figures may be less than the Completed Roll totals.

Based on the initial data received from BC Assessment, the Tax Department calculates the preliminary tax (“mill”) rates required in order to generate the dollars needed to meet the current year’s budget. This takes into consideration the percentage of total revenue currently collected from each tax class. The City collects over 50% of its revenue from Residential properties and 44% from General Businesses. The balance of its revenue comes from Utilities, Major Industry, Light Industry, Seasonal/Recreation, and Farms. The City strives to maintain the same revenue allocation over the years.

The first step in calculating the mill rate is to populate the spreadsheet with the 2002 and 2003 combined assessment values for common properties (properties on the 2002 and 2003 tax roll). See Appendix II for an example of the spreadsheet. The revenue formula is as follows:

Tax Revenue = (Assessment Value/1000) x Mill Rate

where:

- Tax revenue = amount required to balance the current fiscal budget
- Assessment value = the sum of all assessment values within a specific assessment class
- Mill rate = rate required to generate the desired tax revenue

Eg: $(\$12,686,049,099/1000) \times 3.92786 = \$49,829,025$

where:

- (1) \$12,686,049,099 = sum of the 2002 assessments for all common class 01 properties
- (2) 3.92786 = 2002 mill rate for class 01 properties
- (3) 49,829,025 = total revenue collected from common class 01 properties in 2002

Using the formula and the numbers in Appendix II, the sum of the revenues generated in each class using 2002 assessment and 2002 mill rates is \$98,951,161.

The next step is to adjust the mill rate accordingly (Appendix II, column (5)) to ensure that we collect the same revenue from each class as was collected in the prior year. This recalculation adjusts for global market changes in assessment. If this step was omitted, each owner's taxes will be increased or decreased by the same percentage as his assessment change. In order to recalculate the mill rate, we derive the algebraic equation from the previous formula. This is becomes:

Mill Rate = (Tax Revenue/Assessment Value) x 1000

eg: Mill Rate = (49,829,025/14,048,566,683) x 1000

where:

49,829,025	=	2002 revenue from class 01
14,048,566,683	=	2003 assessment value
mill rate	=	new mill required to generate the same 2002 tax dollars

Once the mill rate is adjusted, the rates must be adjusted again to reallocate any increases to class 02. The rate in this class is legislated by the Provincial government to be no more than \$40 per \$1000 of assessment. Anything above the \$40 limit will be apportioned proportionately to each of the remaining classes (Appendix II, Column (7)).

Finally revenue from new growth is added to arrive at a new revenue total if there were no proposed tax increases. With a 4.83% proposed increase this year, the mill rates calculated under column (7) was adjusted for the increase to arrive at the new required revenue in column (12).

Before the rates are reported to Council, a tax change analysis is produced to determine the effect of the tax increase on each property (Appendix V). This provides a breakdown of the number of properties within each tax class and the tax change percentage as a result of the increase.

Financial Impact

Because the City is mandated to have a balanced budget, any changes in the final budget figure must result in changes in the mill rate . This is because the City is not authorized to collect any more or any less money than is determined through the budgeting process. For example, if the mill rate doesn't change and real estate values increase, the City would most likely collect more than we need in tax dollars. Appendix III & IV, scenarios 1 provide the comparison of 2002 and 2003 assessments where tax rates remains constant over both years. Scenarios 2 uses adjusted rates for the 2003 tax year. It is apparent that without adjusting mill rates, we would over bill for taxes. Conversely, in a bad real estate market and if rates remain constant, the City would not be able to fund its spending. In both cases, we would not meet legislated requirements.

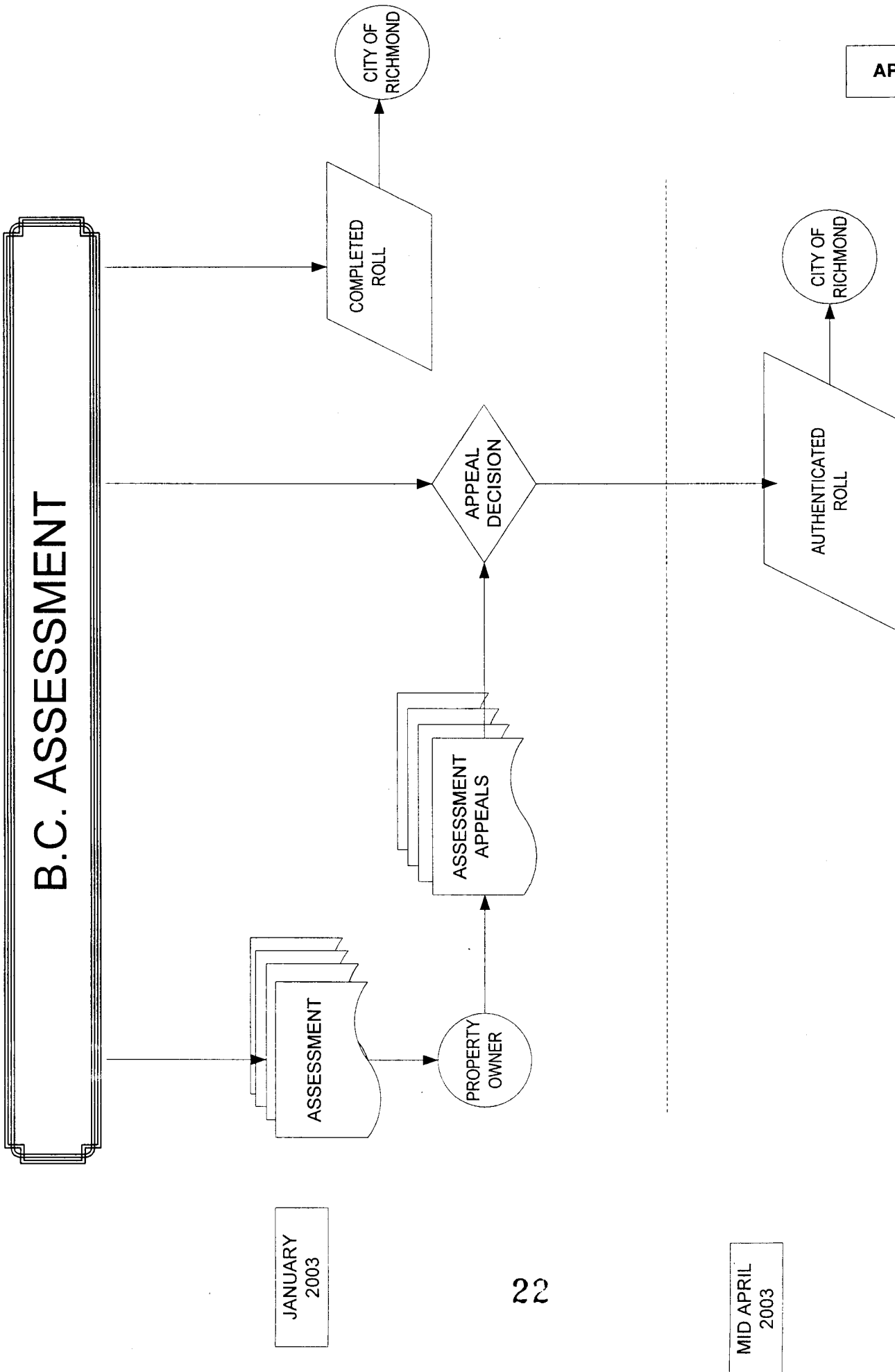
Conclusion

Staff recommend this report be received for information in order to clarify the process of determining the tax "mill" rates.

A handwritten signature in black ink, appearing to read 'Ivy Wong', with a large, stylized loop at the end.

Ivy Wong
Manager, Property Taxes

IW:iw



JANUARY
2003

MID APRIL
2003

TAX RATE CALCULATION

New Mill Rate at \$0 change

Class	Description	(1) Common Properties 2002 Assessment	(2) 2002 Mill Rate	(3) Tax Revenue	(4) Common Properties 2003 Assessment	(5) Rate Required to Achieve same Revenue	(6) Revenue	(7) Rate Required to Achieve Same Revenue, Keeping Class 02 at \$40	(8) Revenue Required	(9) New Growth	(10) Revenue from New Growth	(11) Total Revenue with no Increases	% Of Total Revenue
01	General Residential	12,686,049,099	3.92786	49,829,024.81	14,048,566,683.00	3.546911648	49,829,024.81	3.54722	49,833,312.71	207,056,000.00	734,472.54	50,567,785.25	50.28%
02	General Utilities	10,800,076	40.00000	432,003.04	10,588,131.00	40.800669	432,003.04	40.00000	423,525.24	0.00	0.00	423,525.24	0.42%
04	General Major Industry	70,405,400	10.81530	761,455.52	71,827,900.00	10.60111071	761,455.52	10.60202	761,521.04	565,200.00	5,992.26	767,513.31	0.76%
05	General Light Industry	295,881,200	13.74808	4,067,798.41	298,253,000.00	13.63875103	4,067,798.41	13.63992	4,068,148.45	1,387,000.00	18,918.58	4,087,067.03	4.06%
06	General Business	3,987,801,000	10.92123	43,551,691.92	4,101,347,500.00	10.6188739	43,551,691.92	10.61979	43,555,439.64	81,435,894	864,831.90	44,420,271.54	44.16%
08	General Seasonal/Rec	90,164,100	1.36426	123,014.37	90,164,100.00	1.364438689	123,014.37	1.36446	123,024.96	0.00	0.00	123,024.96	0.12%
09	General Farm	25,592,139	7.27462	186,173.09	25,588,539.00	7.2756436	186,173.09	7.27627	186,189.11	587,900.00	4,277.72	190,466.83	0.19%
		17,166,698,214		98,951,161.16	18,646,335,853.00		98,951,161.16		98,951,161.16		1,628,492.99	100,579,654.15	

New Mill Rate at 4.83% increase

Class	Description	(12) Adjusted Mill Rate plus 4.83%	Revenue	New Growth	Revenue from New Growth	Total Revenue	% Of Total Revenue
01	General Residential	3.71855	52,240,261.72	207,056,000	769,947.56	53,010,209.28	50.29%
02	General Utilities	40.00000	423,525.24	0	0.00	423,525.24	0.40%
04	General Major Industry	11.11410	798,302.51	565,200	6,281.69	804,584.20	0.76%
05	General Light Industry	14.29873	4,264,640.02	1,387,000	19,832.34	4,284,472.37	4.06%
06	General Business	11.13272	45,659,167.38	81,435,894	906,603.28	46,565,770.66	44.17%
08	General Seasonal/Rec	1.43036	128,967.06	0	0.00	128,967.06	0.12%
09	General Farm	7.62771	195,182.04	587,900	4,484.33	199,666.38	0.19%
			103,710,045.97		1,707,149.21	105,417,195.18	

2002 and 2003 Tax Rate Comparison for Various Classes

Scenario 1: Keeping tax rates constant from 2002 to 2003

	Assessment Value		% Change in Assessment	Taxes using 2002 rates		\$ Change in Taxes	% Change in Tax Dollars
	2002	2003		2002	2003		
Class 01	250000	294000	17.60%	981.97	1,154.79	172.83	17.60%
Class 04	1400000	1495000	6.79%	15,141.42	16,168.87	1,027.45	6.79%
Class 05	4,455,000	4,708,000	5.68%	61,247.70	64,725.96	3,478.26	5.68%
Class 06	198,800	205,800	3.52%	2,171.14	2,247.59	76.45	3.52%

Scenario 2: Adjusting mill rate to reflect a 4.83% increase in taxes in 2003

	Assessment Value		% Change in Assessment	4.83% increase in 2003		\$ Change in Taxes	% Change in Tax Dollars
	2002	2003		2002	2003		
Class 01	250000	294000	17.60%	981.97	1,089.81	107.85	10.98%
Class 04	1400000	1495000	6.79%	15,141.42	16,615.58	1,474.16	9.74%
Class 05	4,455,000	4,708,000	5.68%	61,247.70	67,318.42	6,070.72	9.91%
Class 06	198,800	205,800	3.52%	2,171.14	2,291.11	119.97	5.53%

2002 and 2003 Tax Rate Comparison for Class 01 - Residential Properties

Scenario 1: Keeping tax rates constant from 2002 to 2003

	Assessment Value		% Change in Assessment	Taxes using 2002 rates		% Change in Tax Dollars
	2002	2003		2002	2003	
Property 1	250000	294000	17.60%	981.97	1,154.79	17.60%
Property 2	508000	544000	7.09%	1,995.35	2,136.76	7.09%
Property 3	135800	149300	9.94%	533.40	586.43	9.94%
Average Property	240,460	267,281	11.15%	944.49	1,049.84	11.15%

Scenario 2: Adjusting mill rate to reflect a 4.83% increase in taxes in 2003

	Assessment Value		% Change in Assessment	4.83% increase in 2003		% Change in Tax Dollars
	2002	2003		2002	2003	
Property 1	250000	294000	17.60%	981.97	1,089.81	10.98%
Property 2	508000	544000	7.09%	1,995.35	2,016.52	1.06%
Property 3	135800	149300	9.94%	533.40	555.18	4.08%
Average Property	240,460	267,281	11.15%	944.49	990.77	4.90%

TAX CHANGE ANALYSIS SUMMARY

Tax Increase of 4.83%	Tax Decrease	0% Tax Change	Tax Change >4.83% and <=7.75%	Tax Change >7.75% and <=10%	Tax Change >10% and <=15%	Tax Change >15% and <=20%	Tax Change >20% and <=25%	Tax Change >25% and <=30%	Tax Change >30% and <=50%	Tax Change >50% and <=100%	Tax Change >100%
Class 01	8734	485	9511	8110	6547	1362	427	258	532	164	183
Number of Properties											
Class 01 - Residential											
Percentage	16.62%	0.92%	30.91%	15.43%	12.46%	2.59%	0.81%	0.49%	1.01%	0.31%	0.35%

Tax Increase of 4.53%	Tax Decrease	0% Tax Change	Tax Change >4.53% and <=7.75%	Tax Change >7.75% and <=10%	Tax Change >10% and <=15%	Tax Change >15% and <=20%	Tax Change >20% and <=25%	Tax Change >25% and <=30%	Tax Change >30% and <=50%	Tax Change >50% and <=100%	Tax Change >100%
Class 01	9250	485	11391	6720	6253	1182	425	261	519	160	183
Number of Properties											
Class 01 - Residential											
Percentage	17.60%	0.92%	29.93%	12.79%	11.90%	2.25%	0.81%	0.50%	0.99%	0.30%	0.35%

Tax Increase of 4.33%	Tax Decrease	0% Tax Change	Tax Change >4.33% and <=7.75%	Tax Change >7.75% and <=10%	Tax Change >10% and <=15%	Tax Change >15% and <=20%	Tax Change >20% and <=25%	Tax Change >25% and <=30%	Tax Change >30% and <=50%	Tax Change >50% and <=100%	Tax Change >100%
Class 01	9703	485	12160	6261	6111	1034	422	250	516	157	183
Number of Properties											
Class 01 - Residential											
Percentage	18.46%	0.92%	23.14%	11.91%	11.63%	1.97%	0.80%	0.48%	0.98%	0.30%	0.35%

TAX CHANGE ANALYSIS SUMMARY

Tax Increase of 4.83%	Tax Decrease	0% Tax Change	Tax Change >0% and <=4.83%	Tax Change >4.83% and <=7.75%	Tax Change >7.75% and <=10%	Tax Change >10% and <=15%	Tax Change >15% and <=20%	Tax Change >20% and <=25%	Tax Change >25% and <=30%	Tax Change >30% and <=50%	Tax Change >50% and <=100%	Tax Change >100%
Class 05	40	5	240	43	12	8	6	13	14	3	1	16
Number of Properties												
Percentage	9.98%	1.25%	59.85%	10.72%	2.99%	2.00%	1.50%	3.24%	3.49%	0.75%	0.25%	3.99%

Tax Increase of 4.53%	Tax Decrease	0% Tax Change	Tax Change >0% and <=4.53%	Tax Change >4.53% and <=7.75%	Tax Change >7.75% and <=10%	Tax Change >10% and <=15%	Tax Change >15% and <=20%	Tax Change >20% and <=25%	Tax Change >25% and <=30%	Tax Change >30% and <=50%	Tax Change >50% and <=100%	Tax Change >100%
Class 05	42	5	238	44	11	9	5	13	16	1	1	16
Number of Properties												
Percentage	10.47%	1.25%	59.35%	10.97%	2.74%	2.24%	1.25%	3.24%	3.99%	0.25%	0.25%	3.99%

Tax Increase of 4.33%	Tax Decrease	0% Tax Change	Tax Change >0% and <=4.33%	Tax Change >4.33% and <=7.75%	Tax Change >7.75% and <=10%	Tax Change >10% and <=15%	Tax Change >15% and <=20%	Tax Change >20% and <=25%	Tax Change >25% and <=30%	Tax Change >30% and <=50%	Tax Change >50% and <=100%	Tax Change >100%
Class 05	43	5	237	44	11	9	10	9	15	1	1	16
Number of Properties												
Percentage	10.72%	1.25%	59.10%	10.97%	2.74%	2.24%	2.49%	2.24%	3.74%	0.25%	0.25%	3.99%

TAX CHANGE ANALYSIS SUMMARY

Tax Increase of 4.83%	Class 06 - Business/Other	Tax Decrease	0% Tax Change	Tax Change >0% and <=4.83%	Tax Change >4.83% and <=7.75%	Tax Change >7.75% and <=10%	Tax Change >10% and <=15%	Tax Change >15% and <=20%	Tax Change >20% and <=25%	Tax Change >25% and <=30%	Tax Change >30% and <=50%	Tax Change >50% and <=100%	Tax Change >100%
Class 06	Number of Properties	1049	449	3589	305	113	82	237	70	23	24	19	58
	Percentage	17.43%	7.46%	59.64%	5.07%	1.88%	1.36%	3.94%	1.16%	0.38%	0.40%	0.32%	0.96%

Tax Increase of 4.53%	Class 06 - Business/Other	Tax Decrease	0% Tax Change	Tax Change >0% and <=4.53%	Tax Change >4.53% and <=7.75%	Tax Change >7.75% and <=10%	Tax Change >10% and <=15%	Tax Change >15% and <=20%	Tax Change >20% and <=25%	Tax Change >25% and <=30%	Tax Change >30% and <=50%	Tax Change >50% and <=100%	Tax Change >100%
Class 06	Number of Properties	1129	449	3509	315	128	61	233	86	7	24	20	57
	Percentage	18.76%	7.46%	58.31%	5.23%	2.13%	1.01%	3.87%	1.43%	0.12%	0.40%	0.33%	0.95%

Tax Increase of 4.33%	Class 06 - Business/Other	Tax Decrease	0% Tax Change	Tax Change >0% and <=4.33%	Tax Change >4.33% and <=7.75%	Tax Change >7.75% and <=10%	Tax Change >10% and <=15%	Tax Change >15% and <=20%	Tax Change >20% and <=25%	Tax Change >25% and <=30%	Tax Change >30% and <=50%	Tax Change >50% and <=100%	Tax Change >100%
Class 06	Number of Properties	1162	449	3476	317	127	61	232	87	11	19	20	57
	Percentage	19.31%	7.46%	57.76%	5.27%	2.11%	1.01%	3.86%	1.45%	0.18%	0.32%	0.33%	0.95%