

October 18, 2005

Julie Di Lorenzo
President
Greater Toronto Home Builders' Association
20 Upjohn Road, Suite 100
Toronto, ON
M3B 2V9

Dear Ms. Di Lorenzo:

Re: Analysis of Housing Market Impacts on Jobs and Government Revenues

My study conducted for the Greater Toronto Home Builders' Association, illustrates the consequences of government-driven housing price increases which include reduced housing starts, lost jobs and lower tax revenues for all levels of government.

At your request, I have used my housing forecasting system to estimate the potential impacts of price increases that are generated by government policies, and are above-and-beyond any price increases that would result from market conditions. Simulations generated estimates of impacts, for the Greater Toronto Area ("GTA"), on housing starts, on the amount of employment that is generated by housing starts, and on revenues generated for the three levels of government. These simulations indicate that the potential impacts are quite substantial. Looking at potential impacts over the 2006 to 2009 period, each \$1,000 in policy-driven price increases results in:

- 1,137 fewer housing starts over the four year period, or a loss of 284 housing starts per year.
- 1,015 fewer jobs per year.
- \$20.6 million less in annual revenues for the three levels of government, including \$13.9 million less for the federal government, \$4.6 million less for the provincial government, and \$2.1 million less for municipalities in the Greater Toronto Area.
- The amounts of realty taxes that might be received in future years would be reduced, by about \$2.2 million per year. This stream of lost revenues could be expressed as a Net Present Value, of about \$45 million for each \$1,000 policy-driven price increase.

Clearly, policy-driven price increases have substantial negative consequences, for home builders and home buyers, for employment in the GTA, and for government revenues.

Yours Truly



Will Dunning
President



Greater Toronto Home Builders' Association

Established in 1921, The Greater Toronto Home Builders' Association is the voice of the residential construction industry in the GTA. We have more than 1,300 member companies representing a cross-section of the industry including builders, developers, renovators, sub-contractors, manufacturers and suppliers as well as service and professional firms and financial institutions. Based on 2004 activity, GTHBA members represent over 231,000 person-years of employment where the provincial impact equates to 460,000 jobs and more than \$17 billion in GTA economic activity which accounts for \$34.2 billion provincially or 5.6 percent GDP.

Introduction

This research report has been completed by Will Dunning Inc. for the Greater Toronto Home Builders' Association. The research develops forecast scenarios for the new homes market of the Greater Toronto Area ("GTA"). Various scenarios consider the impacts of price increases that might be generated as a result of government policies as well as the impacts of increases in interest rates.

In addition to considering the negative effects on housing market activity, estimates are developed of the impacts on employment as well as impacts on the revenues that are generated by new homes activity for the federal, provincial, and municipal levels of government.

Summary

Simulations were conducted using the housing forecasting system of Will Dunning Inc. The simulations indicate that rising interest rates and/or price increases that are driven by government policies would reduce housing activity in the Greater Toronto Area. In consequence, there would be job losses. As well, the three levels of government would experience revenue reductions.

The simulations estimated the incremental impacts of each \$1,000 policy-driven increase in house prices. The estimates indicate that each \$1,000 increase in house prices results in:

- 1,137 fewer starts over the four year period, or a loss of 284 housing starts per year.
- 1,015 fewer jobs per year.
- \$20.6 million less in revenues for the three levels of government¹, including \$13.9 million less for the federal government, \$4.6 million less for the provincial government, and \$2.1 million less for municipalities in the Greater Toronto Area.

¹ Revenues include income tax, GST, PST, contributions to CPP and EI, building permit fees and development charges.



- In addition, the amounts of realty taxes that might be received in future years would be reduced, by about \$2.2 million per year. A long-term stream of revenues such as this can be expressed as a Net Present Value. Net Present Value is the accepted method of converting future revenue streams to a value today. A loss of \$2.2 million per year in realty taxes equates to a \$45 million loss to municipalities and the education system for each \$1,000 policy-driven price increase².

A variety of scenarios were analyzed, to assess potential impacts over the 2006 to 2009 period.

For example:

- A \$20,000 policy-driven price increase would reduce housing starts by 10.4%, employment by 11.6%, and government revenues by 5.1%.
- A one percentage point increase in mortgage interest rates would reduce starts of owner-occupancy housing by 9.5% and the amount of employment that is generated would be reduced by 8.5%. Revenues for the three levels of government would be reduced by 8.3%.
- A combination of a one percentage point increase in interest rates plus a \$20,000 policy-driven price increase would reduce starts by 22.3%, employment by 22.4% and government revenues by 16.7%.

Policy-driven price increases occur if government policies result in increased costs for home builders, which builders then pass on to home buyers through higher prices. The cost increases can take the form of direct increases that result from increased fees and charges, such as Development Charges. They can also result indirectly, if, for example, government policies result in land shortages that cause land prices to increase. Indirect increases can also result from increased complexity or length of the planning approvals process.

In the analysis, these policy-driven price increases are in addition to any increases that might occur as the result of market conditions.

One area of direct costs - Development Charges - has been increasing in the Greater Toronto Area. During September 2003 to July 2005, the average Development Charge has increased by \$3,756 per dwelling unit, a 27% increase. By unit type, the increases over that period (less than 2 years) have been:

- Single-detached homes – increase of \$4,367, or 24.5%, to an average of \$22,212 per unit.
- Semi-detached homes – increase of \$4,404, or 26.0%, to \$21,343 per unit.
- Town homes – increase of \$3,163, or 22.0%, to \$17,571 per unit.
- Apartments – increase of \$2,642, or 54.6%, to \$7,484 per unit.

Land prices have increased very rapidly during recent years. Using lot value estimates published by MCAP Financial, this report estimates that, for 13 municipalities in the GTA, during the three year period from the spring of 2002 to the spring of 2005, the average lot price in the GTA increased by about \$59,000, or 66%.

² Calculation of Net Present Value assumes a discount rate of 5.0%.



Current Conditions in the GTA Housing Market

The GTA housing market has been very strong since the late 1990s, as rapid growth in employment combined with low interest rates has enabled tens of thousands of GTA residents to purchase new homes and condominium apartments. Employment growth has slowed in recent years, which has the potential to reduce the demand for new housing. However, continued low interest rates are generating sustained high levels of new home sales.

The initial analysis is based on “Status Quo” assumptions – especially the continuation of low interest rates. This results in a very positive housing market outlook. One of the key positive factors in the outlook is that the stock market has rallied during the past two years. This is already having positive effects on job creation in the GTA and should continue to do so for the next few years. The job creation should support continued strong housing demand.

In this “Status Quo” scenario, assuming that interest rates (for 5-year mortgages and 5-year Government of Canada bonds) do not increase, it is forecast that an average of 46,759 new homes and condominiums per year would be sold during 2006 to 2009. This would be fractionally higher than the average sales rate for 2002 to 2005 (45,882 per year). As shown in the following table, sales of low-rise homes during 2006 to 2009 would be slightly weaker than during the earlier period, while sales of condominium apartments would increase substantially.

<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2002	38,534	15,791	54,325
2003	30,931	12,234	43,165
2004	27,946	13,774	41,720
2005	27,864	16,452	44,317
2006	27,236	15,544	42,780
2007	33,033	18,117	51,150
2008	32,644	18,796	51,441
2009	26,082	15,583	41,665
Averages			
2002-2005	31,319	14,563	45,882
2006-2009	29,749	17,010	46,759
Source: Will Dunning Inc.			

As the new homes are built, there will be sizable economic spin-offs. In addition, large amounts of revenue will be generated for government. Revenue sources for government include federal and provincial income taxes, the federal Goods and Services Tax, Provincial Sales Tax, Land Transfer Tax, premiums for the Canada Pension Plan and Employment Insurance, Development Charges, and building permit fees. In addition, the housing that is constructed will add to the assessment bases of the municipalities and result in on-going revenues well beyond the projection period.



The following table summarizes the economic and fiscal impacts of the new homes and condominiums that are sold in the “Status Quo” scenario. The table indicates that the housing units that are started during 2006 to 2009 will result in:

- An average of about 167,000 jobs per year. Over the four year period the total is about 669,000 “person years” of employment. The job total includes the jobs that are located on construction sites, jobs providing materials and support services, and economic spin-offs (also known as the “multiplier effect”). In all of the estimates of job creation, 79.3% of the jobs are generated directly and 20.7% of the jobs are from the multiplier effect.
- About \$17.22 billion of revenues for the three levels of government, including \$10.24 billion for the federal government, \$3.36 billion for the provincial government, and \$3.62 billion for municipalities (revenues received by regional governments, boards of education, and GO Transit are included in this category).
- The table shows revenue impacts for the three levels of government, which are “one-time”. However, for realty taxes, there are “incremental” impacts: each year, there are additions to the housing stock, which results in revenues not just in the current year, but in future years. As is shown below, by 2009, about \$614 million will have been added to annual potential realty tax revenues, which represents a future stream of annual revenues for municipalities and the educational system.

The value of future realty tax revenues could be calculated. For example, for the housing constructed in 2006, the \$144 million in potential realty taxes equates to revenue of \$2,971 per unit per year, into the indefinite future. This could be converted to a Net Present Value. Using a discount rate of 5%, the future realty taxes have a Net Present Value of about \$59,000 per unit. If this present value was included in the revenue streams, it would add \$2.88 billion to revenues for 2006. Similar calculations can be made for the following years. The value of future taxes is by far the largest revenue stream from new housing construction, and dwarfs the revenues generated by Development Charges. Municipalities need to consider that raising their Development Charges will reduce their future realty tax revenues.

Table 2					
Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing					
“Status Quo” Scenario					
	2006	2007	2008	2009	Total 2006-2009
Low-Rise Ownership Units Started	30,444	34,249	34,641	30,421	129,755
High-Rise Ownership Units Started	18,095	17,723	20,771	20,033	76,623
Total Home Ownership Units Started	48,539	51,972	55,412	50,454	206,378
Employment Generated (Person Years)	156,719	170,503	178,724	160,902	666,848
Federal Revenues (2004 \$ Millions)	\$2,407	\$2,619	\$2,745	\$2,472	\$10,244
Provincial Revenues (2004 \$ Millions)	\$789	\$860	\$899	\$808	\$3,356
Municipal Revenues (2004 \$ Millions)	\$850	\$934	\$969	\$866	\$3,618
Revenues for 3 Levels of Government (2004 \$ Millions)	\$4,046	\$4,413	\$4,613	\$4,146	\$17,218
Incremental Realty Taxes (2004 \$ Millions)	\$144	\$157	\$164	\$148	\$614
Source: Will Dunning Inc.					



Threats to the Housing Market Outlook

For several years, the opinion of most economists has been that interest rates are below “neutral” levels and that higher interest rates are inevitable (although the timing of the increases is questionable). To date, short-term interest rates have increased, but long-term rates, which are more important to the housing market, remain very low. As noted, continued low long-term rates have contributed to the great strength of the housing market. An obvious threat to the housing market is that longer-term interest rates could increase. Any increases in interest rates would reduce housing activity below the “status quo” levels.

An additional threat, which has become increasingly apparent during the past two years, is that government policies could result in rising costs for home builders, which would be passed on to home buyers through higher house prices. These price increases would be above-and-beyond any increases that would be driven by costs for labour and materials and by market conditions. These policy-driven price increases could occur directly (through increased fees paid to municipalities, such as Development Charges and processing fees) or they could be indirect (such as increases in land prices that result from shortages, or costs to the builders of getting applications approved).

Direct government-related costs clearly have been increasing. Table 3 shows estimates of average Development Charges in the GTA³. It shows that during September 2002 to July 2005, the average Development Charge increased by \$4,502 per unit, or 34.1%. Most of the increase occurred after September 2003: for the period September 2003 to July 2005, the average Development Charge increased by \$3,756 (27.0%). Apartments had the largest percentage rise (a 54.6% increase from September 2003 to July 2005). For each of the three low-rise housing forms (single-detached, semi-detached, and row homes) the increases exceeded 20%.

<i>Effective Date</i>	<i>Single-Detached</i>	<i>Semi-Detached</i>	<i>Row</i>	<i>Apartment (1)</i>	<i>Total</i>
September 2002	\$16,625	\$15,868	\$13,596	\$5,189	\$13,187
September 2003	\$17,846	\$16,939	\$14,408	\$4,841	\$13,933
October 2004	\$20,233	\$19,534	\$15,721	\$5,458	\$15,733
July 2005	\$22,212	\$21,343	\$17,571	\$7,484	\$17,689
\$ Change Since September 2003	\$4,367	\$4,404	\$3,163	\$2,642	\$3,756
% Change Since September 2003	24.5%	26.0%	22.0%	54.6%	27.0%
Source: Calculations by Will Dunning Inc., using housing starts data from Canada Mortgage and Housing Corporation and data on development charge rates from the Greater Toronto Home Builders' Association					
Note: (1) Calculation of average for Apartments assumes that 50% of units have 2 or more bedrooms					

³ Average Development Charges have been calculated as follows: the Greater Toronto Home Builders' Association provided rates for Development Charges for each municipality, by dwelling type, for the various time periods. Average development charges have been calculated from the detailed data, using the mix of housing activity (by location and dwelling type) that pertained during 2002 to 2004.



Prices for building lots have also been rising sharply in the GTA. The best available source of data on prices for building lots is generated by MCAP Financial (and is published semi-annually). Taking data from the reports for spring 2002, 2003, 2004, and 2005, estimates of average lot prices have been developed⁴. The following table summarizes the results for the GTA for the four time periods. It shows that the average lot price increased by about \$59,000 (66%) during the three year period. While this is not being presented as a precise calculation of the average lot price in the GTA, the 13 market areas that are included in the calculation accounted for 64.6% of low-rise starts in the GTA. Therefore, this estimate appears to be a reasonable approximation.

More detailed estimates (averages for each of 13 market areas) are shown in Appendix “A”. In those detailed estimates it can be seen that some areas have seen much larger increases than others. Large increases have been seen in York Region, where a shortage of water and sewer capacity has constrained the supply of development-ready lots. Mississauga and Oakville have also seen large increases in lot prices, which are related to the depletion of inventories of residential lots.

House Type	Town House	Single-Detached			Weighted Average
Lot Size	20 Front Feet	30-36 Front Feet	40 Front Feet	50 Front Feet	
Spring 2002	\$60,479	\$89,294	\$100,015	\$113,466	\$89,197
Spring 2003	\$71,345	\$103,410	\$119,824	\$137,815	\$105,519
Spring 2004	\$90,764	\$128,725	\$145,633	\$179,623	\$132,216
Spring 2005	\$101,345	\$145,744	\$164,489	\$196,165	\$148,167
Change During Spring 2002-Spring 2005, in \$s	\$40,865	\$56,449	\$64,475	\$82,698	\$58,970
% Change During Spring 2002-Spring 2005	67.6%	63.2%	64.5%	72.9%	66.1%

Source: Calculations by Will Dunning Inc., using data from MCAP Financial Corporation

This analysis has identified cost increases from two sources that affect the costs and ultimately the selling prices of new homes. The first item (Development Charges) is directly controlled by municipalities and indirectly through the provincial enabling legislation. The second item (costs for building lots) is determined in the marketplace for residential land, but conditions – especially the supply of lots - in that market can be highly affected by the policies and actions of government, and therefore government policies can affect prices for building lots.

⁴ MCAP Financial publishes estimates of prices per front foot of lot, for four different lot sizes, for selected market areas. In the analysis shown here, the price per front foot estimates have been converted to price per lot. Then, using data for 13 areas for which estimates are available for all four time periods, weighted average lot values have been calculated. The weights used in the calculation of the averages are based on actual housing starts for 2002-2004.



In consequence, there is risk that governments can directly (through Development Charges) and indirectly (if policies result in reduced supply and contribute to price increases for building lots) affect the costs and therefore prices of new homes. These price increases, which are being called policy-driven increases in this report, have the potential to reduce the affordability of new homes, and thereby to reduce sales of new homes in the Greater Toronto Area.

As shown above, there have clearly already been some policy-driven increases in house prices. The following section provides an illustration of potential impacts in the event that there are further policy-driven price increases.

Impacts of a Policy-Driven \$20,000 Increase in Costs

This scenario assumes that government policies add \$20,000 to builders' costs (through increased Development Charges and costs to builders for processing applications plus the effects of policies on land prices) and that these costs are passed through to the home buyer. This price increase would be in addition to any increases that are generated by the market.

Higher home prices result in increased costs for potential home buyers (including increased mortgage payments and realty taxes). Housing affordability is reduced and sales fall.

In this scenario, new home sales average 40,201 per year during 2006 to 2009, 14.0% lower than in the "Status Quo" scenario. The greatest reduction is for low rise homes (19.1%); sales of apartments fall by 5.1%.

Table 5			
Forecast of New Home Sales			
in the Greater Toronto Area			
Assuming \$20,000 Policy-Driven Price Increase			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	27,236	15,544	42,780
2007	33,033	18,117	51,150
2008	32,644	18,796	51,441
2009	26,082	15,583	41,665
Annual Averages 2006-2009			
This Scenario	24,062	16,139	40,201
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-19.1%	-5.1%	-14.0%
Source: Will Dunning Inc.			

As is shown in the next table, the new home sales result in a total of 184,893 housing starts during 2006 to 2009, which is 10.4% less than in the "Status Quo" scenario. The total employment generated (about 589,000 person years) is about 77,000 (11.6%) lower than in the "Status Quo" scenario.



Total government revenues fall by 5.1% compared to the “Status Quo” scenario. The federal and provincial governments both have revenue reductions of about 10%. Municipal revenues, on the other hand, expand by 13.2%⁵. By 2009, the total addition to potential annual realty tax revenues (\$579 million) is 5.6% lower than in the “Status Quo”.

	This Scenario	“Status Quo” Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	111,374	129,755	-18,381	-14.2%
High-Rise Ownership Units Started	73,519	76,623	-3,104	-4.1%
Total Home Ownership Units Started	184,893	206,378	-21,485	-10.4%
Employment Generated (Person Years)	589,461	666,848	-77,387	-11.6%
Federal Revenues (2004 \$ Millions)	\$9,221	\$10,244	-\$1,023	-10.0%
Provincial Revenues (2004 \$ Millions)	\$3,017	\$3,356	-\$339	-10.1%
Municipal Revenues (2004 \$ Millions)	\$4,095	\$3,618	\$477	13.2%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$16,333	\$17,218	-\$885	-5.1%
Incremental Realty Taxes (2004 \$ Millions)	\$579	\$614	-\$34	-5.6%
Source: Will Dunning Inc.				

Impacts of a One Percentage Point Increase in Interest Rates

An alternative scenario assumes that interest rates (the 5-year Government of Canada bond yield and the 5-year mortgage rate) increase by one percentage point from current levels. This affects housing activity in two ways. Firstly, higher interest rates result in reduced economic growth and employment growth, which reduces the number of potential home buyers in future years. Secondly, mortgage payments are increased, which makes home ownership unaffordable for some of the potential buyers.

In this scenario, new home sales average 41,503 per year during 2006 to 2009, 11.2% lower than in the “Status Quo” scenario. The greatest reduction is for high-rise homes (17.3%); sales of low-rise homes fall by 7.8%.

⁵ In developing estimates of the impacts on government revenue, it is assumed that one-quarter (\$5,000 per unit) of the \$20,000 policy-driven increase is due to municipal costs and three-quarters are due to land price increases.



<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	25,425	14,249	39,674
2007	30,159	14,735	44,894
2008	29,288	15,003	44,291
2009	24,869	12,283	37,152
Annual Averages 2006-2009			
This Scenario	27,435	14,068	41,503
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-7.8%	-17.3%	-11.2%
Source: Will Dunning Inc.			

The next table shows that the new home sales result in a total of 186,760 housing starts during 2006 to 2009, which is 9.5% less than in the "Status Quo" scenario. The total employment generated (about 610,000 person years) is about 57,000 (8.5%) lower than in the "Status Quo" scenario.

Total government revenues fall by 8.3% compared to the "Status Quo" scenario, as all three levels of government have revenue reductions: federal revenues fall by 8.5%, provincial revenues fall by 8.4%, and municipal revenues fall by 7.9%. By 2009, the total addition to potential annual realty tax revenues (\$562 million) is 8.5% lower than in the "Status Quo".

	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	121,554	129,755	-8,201	-6.3%
High-Rise Ownership Units Started	65,206	76,623	-11,417	-14.9%
Total Home Ownership Units Started	186,760	206,378	-19,618	-9.5%
Employment Generated (Person Years)	610,216	666,848	-56,632	-8.5%
Federal Revenues (2004 \$ Millions)	\$9,374	\$10,244	-\$870	-8.5%
Provincial Revenues (2004 \$ Millions)	\$3,076	\$3,356	-\$281	-8.4%
Municipal Revenues (2004 \$ Millions)	\$3,334	\$3,618	-\$284	-7.9%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$15,784	\$17,218	-\$1,435	-8.3%
Incremental Realty Taxes (2004 \$ Millions)	\$562	\$614	-\$52	-8.5%
Source: Will Dunning Inc.				



Combining the Two Threats

In this scenario it is assumed that there is both a policy-driven price increase (\$20,000) and a one percentage point increase in interest rates. This combination has a more substantial negative effect on housing affordability, and results in a sharper reduction in housing activity. In this scenario, new home sales average 33,590 per year during 2006 to 2009, 28.2% lower than in the “Status Quo” scenario. Sales of low-rise homes fall by 29.8%; sales of apartments fall by 25.3%.

<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	21,913	13,593	35,506
2007	23,970	13,450	37,420
2008	21,426	13,315	34,741
2009	16,247	10,443	26,690
Annual Averages 2006-2009			
This Scenario	20,889	12,700	33,590
“Status Quo” Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-29.8%	-25.3%	-28.2%
Source: Will Dunning Inc.			

The next table shows that the new home sales result in a total of 160,380 housing starts during 2006 to 2009, which is 22.3% less than in the “Status Quo” scenario. The total employment generated (about 517,000 person years) is about 149,000 (22.4%) lower than in the “Status Quo” scenario.

Total government revenues fall by 16.7% compared to the “Status Quo” scenario. The federal and provincial governments both have revenue reductions of more than 20%. The municipalities, on the other hand, have essentially no change (a revenue reduction estimated at 0.3%).

By 2009, \$508 million has been added to potential annual realty tax revenues. This is 17.2% lower than in the “Status Quo”.



	This Scenario	“Status Quo” Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	100,311	129,755	-29,444	-22.7%
High-Rise Ownership Units Started	60,069	76,623	-16,554	-21.6%
Total Home Ownership Units Started	160,380	206,378	-45,998	-22.3%
Employment Generated (Person Years)	517,364	666,848	-149,484	-22.4%
Federal Revenues (2004 \$ Millions)	\$8,091	\$10,244	-\$2,153	-21.0%
Provincial Revenues (2004 \$ Millions)	\$2,652	\$3,356	-\$705	-21.0%
Municipal Revenues (2004 \$ Millions)	\$3,606	\$3,618	-\$12	-0.3%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$14,349	\$17,218	-\$2,870	-16.7%
Incremental Realty Taxes (2004 \$ Millions)	\$508	\$614	-\$105	-17.2%
Source: Will Dunning Inc.				

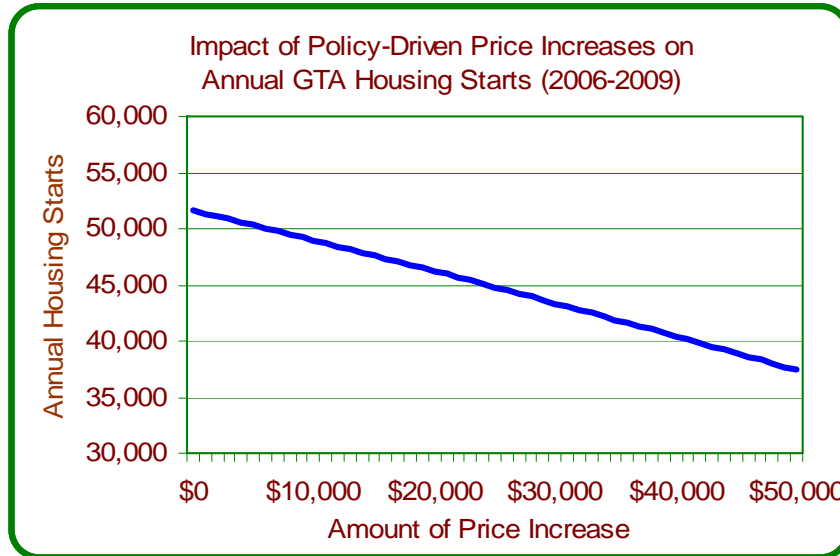
Incremental Impacts of Rising Prices

Scenarios have been developed in which policy-driven price increases rise in increments of \$1,000⁶. In these scenarios, interest rates are held at current levels, to isolate the effects of price increases alone.

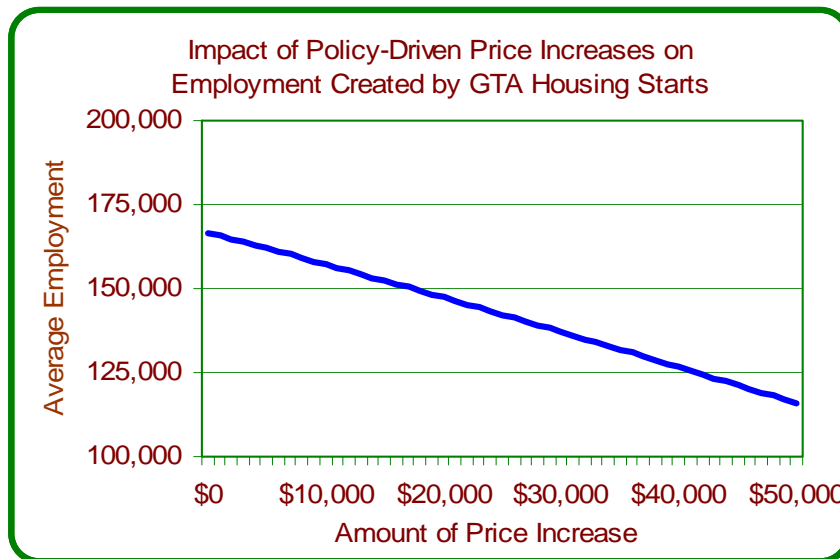
The following set of charts (housing starts, average employment generated, revenue for each of the three levels of government, and incremental realty taxes) shows the variations that occur as prices are driven higher by policy impacts.

As can be seen in the following chart, a policy-driven price increase of \$50,000 would reduce the number of housing starts (of home ownership units) in the GTA to an average of about 37,400 units per year during 2006 to 2009. This would be 14,200 units per year lower than they would be in the absence of the price increase (about 51,600 units per year). Over a four year period, total starts would be reduced by 57,000 units. For each \$1,000 of policy-driven price increase, the number of housing starts in the GTA would be reduced by an average of 284 units per year.

⁶ In calculating the revenue impacts, it is assumed that for the first \$20,000 of increase one-quarter of the increase is direct costs (municipal fees and charges) and three-quarters are policy-driven land price increases (e.g. for a \$1,000 policy-driven increase, direct costs rise by \$250 and land prices rise by \$750; for a \$2,000 policy-driven increase direct costs rise by \$500 and land prices rise by \$1,500, etc.). For policy-driven increases of more than \$20,000, \$5,000 is assumed to be due to direct costs and the balance is due to land prices.

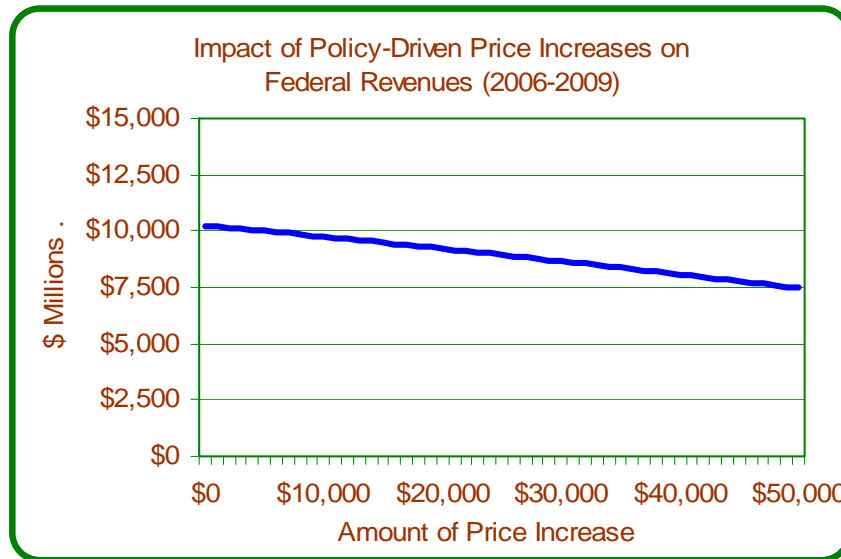


The total employment generated by the home ownership housing starts would be about 167,000 jobs per year (667,000 person-years over the four year period) in the absence of the policy-driven price increases and 116,000 jobs per year in the event of a \$50,000 policy-driven increase. For each \$1,000 of policy-driven price increase, annual employment would be reduced by an average of 1,015 (4,060 person-years over the four years).

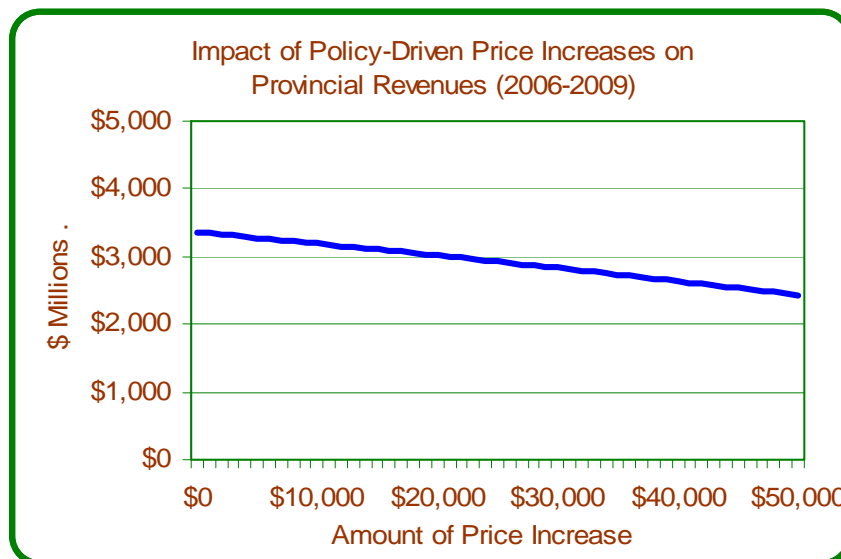




The next chart shows that total federal revenues that result from 2006-2009 housing starts would be about \$10.2 billion. A \$50,000 policy-induced price increase would cause federal revenues to fall by about \$2.8 billion, to slightly less than \$7.5 billion. Each \$1,000 of policy-induced price increase reduced federal revenues (over the four year period) by an average of \$56 million.

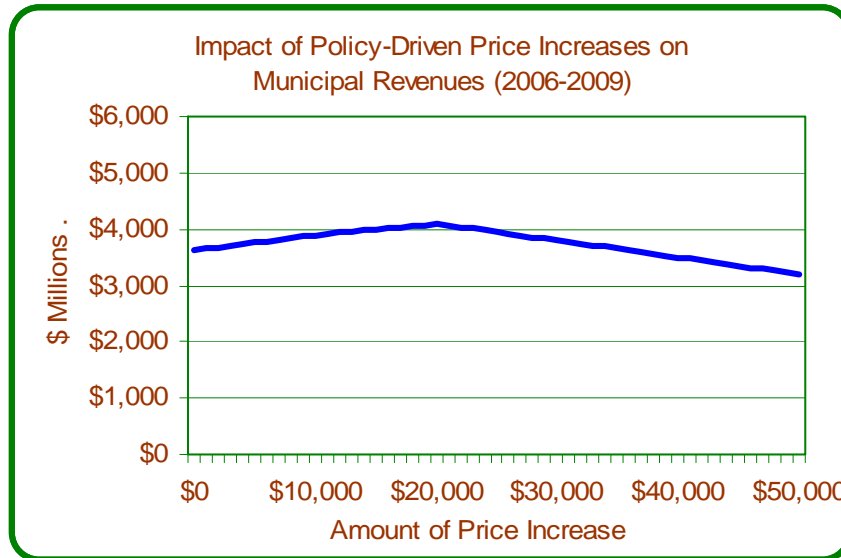


A \$50,000 policy-driven price increase causes provincial government revenues (over the four year period) to fall to about \$2.43 billion, versus about \$3.36 billion in the status quo. Each \$1,000 increment in policy-driven price increases causes provincial revenues (over four years) to fall by an average of \$18 million.

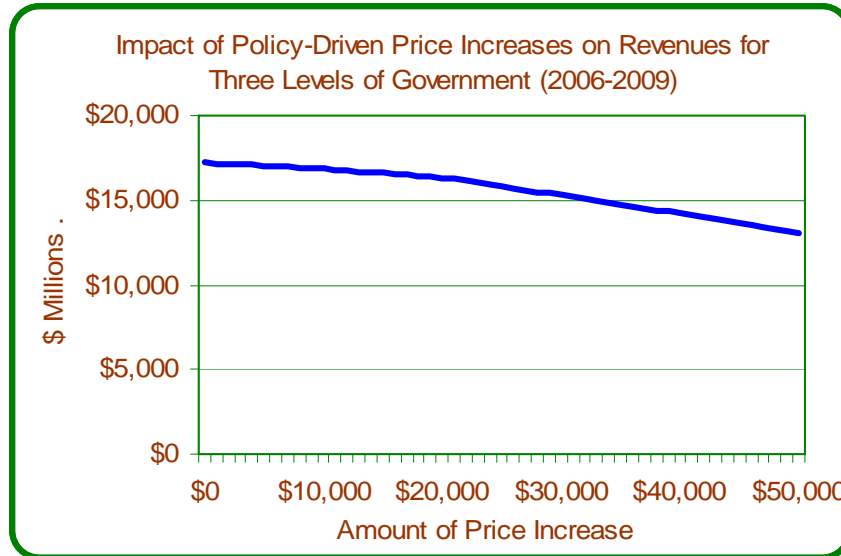




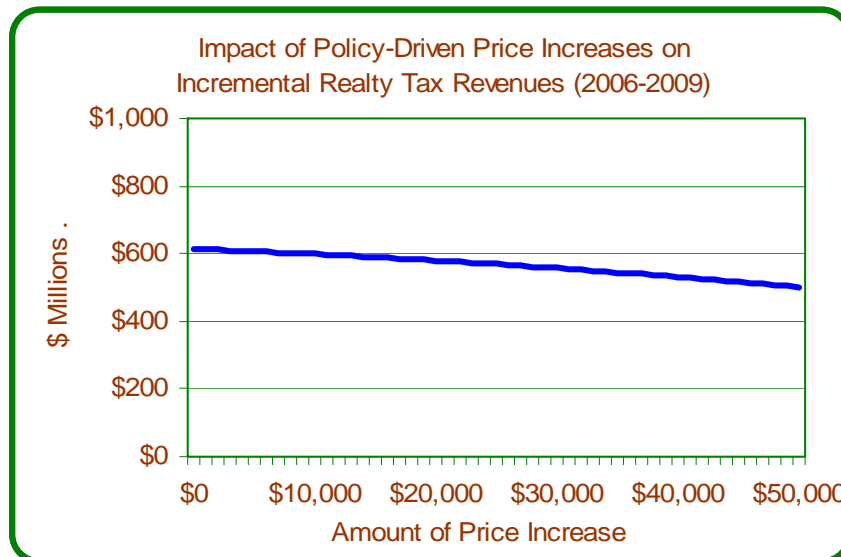
The policy driven price increases cause municipal revenues to rise for the first \$20,000 of price increase, as it is assumed that one-quarter of the price increase is due to increased municipal fees and charges. Although the total number of housing starts falls, the revenue per unit rises, causing total municipal revenues to rise. At a \$20,000 increase, municipal revenues total \$4.10 billion over the four years. This is \$477 million higher than in the status quo (\$3.62 billion). Beyond the \$20,000 point, municipal revenue per unit no longer increases, with the consequence that total municipal revenue starts to fall. Over the entire range of a \$50,000 per unit price increase, municipal revenue falls by \$421 million. This equates to a reduction of \$8.4 million (over four years) for each \$1,000 in policy-induced price increase.



For all three levels of government in combination, total revenue falls gradually up to the \$20,000 point, as federal and provincial revenues fall but municipal revenues rise. Beyond the \$20,000 point, total revenues fall. Over the entire range of a \$50,000 increase the total revenue falls from about \$17.2 billion to \$13.1 billion, or a reduction of \$4.1 billion. On average, over the entire \$50,000 range, for each \$1,000 policy-driven price increase total government revenues over the four years fall by \$83 million.



The incremental realty tax revenues fall as well. In the scenario of no policy-driven price increases, after 4 years \$614 million have been added to annual potential realty taxes. After the \$50,000 increase, the increment is \$502 million, a reduction of \$112 million. For each \$1,000 in policy-driven increase, future realty taxes are reduced by \$2.2 million per year. As was discussed earlier, the Net Present Value of the lost future revenues could be calculated. Based on a 5% discount rate, the loss of \$112 million in annual revenue that is caused by a \$50,000 policy-driven price increase would have a Net Present Value of \$2.2 billion. Furthermore, for each \$1,000 price increment, the loss of \$2.2 million per year has a Net Present Value equal to about \$45 million.





Other Scenarios

Other scenarios have been tested. Tables that summarize results for various scenarios are presented in Appendix "B". Not surprisingly, scenarios with larger amounts of policy-driven price increases have increasingly large, negative impacts on housing activity, on employment levels, and on revenues received by the three levels of government.

For the scenarios with the largest policy-driven increases in house prices (\$50,000), when combined with the largest increase in mortgage rates (2.5 percentage points), the reduction in housing activity is extremely large, to the point that the simulated reduction is questionable. While the precise impacts on the housing market are debatable, these scenarios certainly point out that after almost a decade of falling interest rates, the combination of rising rates on top of rising house prices would be extremely difficult to adjust-to for both housing consumers and housing producers.



Appendix “A”

Estimates of Average Lot Values



Table A-1 Spring 2002 Average Prices (Per Front Foot) for Building Lots in the GTA Using Data from MCAP Financial Lot Value Reports					
House Type	Town House	Single-Detached			Weighted Average Price/Lot
Lot Size	20 Front Feet	30-35 Front Feet	40 Front Feet	50 Front Feet	
Richmond Hill	\$3,200	\$3,150	\$2,900	\$2,700	\$101,424
Markham	\$3,200	\$3,000	\$2,750	\$2,500	\$96,979
Maple	\$3,300	\$3,100	\$2,800	\$2,600	\$102,973
Woodbridge	\$3,400	\$3,200	\$2,900	\$2,700	\$106,502
Newmarket	\$2,600	\$2,400	\$2,200	\$2,000	\$70,562
Mississauga	\$3,500	\$3,300	\$3,050	\$2,700	\$101,701
Brampton	\$2,800	\$2,450	\$2,350	\$2,100	\$86,774
Pickering	\$2,900	\$2,700	\$2,500	\$2,200	\$77,365
Ajax	\$2,700	\$2,400	\$2,150	\$1,900	\$79,746
Whitby	\$2,200	\$2,000	\$1,800	\$1,600	\$65,258
Oshawa	\$1,900	\$1,700	\$1,600	\$1,400	\$59,462
Oakville	\$3,100	\$2,900	\$2,600	\$2,500	\$92,611
Burlington	\$2,700	\$2,400	\$2,200	\$2,000	\$69,995
Average Price Per Front Foot	\$3,024	\$2,706	\$2,500	\$2,269	
Average Price/Lot	\$60,479	\$89,294	\$100,015	\$113,466	\$89,197
Source: Calculations by Will Dunning Inc., using data from MCAP Financial Corporation Note: For each category, MCAP provides a range of estimated prices. In this calculation, the mid-points of each range have been used.					



Table A-2 Spring 2003 Average Prices (Per Front Foot) for Building Lots in the GTA Using Data from MCAP Financial Lot Value Reports					
House Type	Town House	Single-Detached			Weighted Average Price/Lot
Lot Size	20 Front Feet	30-36 Front Feet	40 Front Feet	50 Front Feet	
Richmond Hill	\$3,900	\$3,650	\$3,500	\$3,200	\$120,274
Markham	\$3,800	\$3,500	\$3,400	\$3,000	\$115,840
Maple	\$3,900	\$3,600	\$3,400	\$3,100	\$121,955
Woodbridge	\$4,000	\$3,700	\$3,400	\$3,200	\$124,492
Newmarket	\$3,000	\$2,600	\$2,400	\$2,300	\$78,944
Mississauga	\$4,100	\$3,850	\$3,650	\$3,300	\$120,480
Brampton	\$3,300	\$2,850	\$2,850	\$2,600	\$103,730
Pickering	\$3,300	\$2,900	\$2,700	\$2,400	\$85,214
Ajax	\$3,000	\$2,600	\$2,350	\$2,200	\$88,033
Whitby	\$2,600	\$2,300	\$2,100	\$2,100	\$77,693
Oshawa	\$2,200	\$1,900	\$1,800	\$1,600	\$67,031
Oakville	\$3,800	\$3,500	\$3,200	\$3,100	\$113,235
Burlington	\$3,100	\$2,700	\$2,600	\$2,400	\$80,869
Average Price Per Front Foot	\$3,567	\$3,134	\$2,996	\$2,756	
Average Price/Lot	\$71,345	\$103,410	\$119,824	\$137,815	\$105,519
Source: Calculations by Will Dunning Inc., using data from MCAP Financial Corporation Note: For each category, MCAP provides a range of estimated prices. In this calculation, the mid-points of each range have been used.					



Table A-3 Spring 2004 Average Prices (Per Front Foot) for Building Lots in the GTA Using Data from MCAP Financial Lot Value Reports					
House Type	Town House	Single-Detached			Weighted Average Price/Lot
Lot Size	20 Front Feet	30-36 Front Feet	40 Front Feet	50 Front Feet	
Richmond Hill	\$5,000	\$4,250	\$3,650	\$3,550	\$137,161
Markham	\$5,000	\$4,350	\$3,650	\$3,750	\$140,238
Maple	\$5,700	\$4,200	\$3,950	\$3,750	\$147,214
Woodbridge	\$5,800	\$4,300	\$4,050	\$3,850	\$150,742
Newmarket	\$3,350	\$3,300	\$3,150	\$3,150	\$97,982
Mississauga	\$5,100	\$4,450	\$4,250	\$4,000	\$143,185
Brampton	\$4,000	\$3,950	\$3,850	\$3,850	\$143,951
Pickering	\$4,650	\$3,200	\$3,000	\$2,800	\$104,955
Ajax	\$3,400	\$3,100	\$2,900	\$2,700	\$106,069
Whitby	\$3,200	\$2,950	\$2,700	\$2,700	\$99,223
Oshawa	\$2,800	\$2,400	\$2,100	\$1,900	\$81,662
Oakville	\$5,050	\$4,200	\$4,150	\$4,450	\$146,570
Burlington	\$3,600	\$3,200	\$3,100	\$2,900	\$95,493
Average Price Per Front Foot	\$4,538	\$3,901	\$3,641	\$3,592	
Average Price/Lot	\$90,764	\$128,725	\$145,633	\$179,623	\$132,216

Source: Calculations by Will Dunning Inc., using data from MCAP Financial Corporation
Note: For each category, MCAP provides a range of estimated prices. In this calculation, the mid-points of each range have been used.



Table A-4 Spring 2005 Average Prices (Per Front Foot) for Building Lots in the GTA Using Data from MCAP Financial Lot Value Reports					
House Type	Town House	Single-Detached			Weighted Average Price/Lot
Lot Size	20 Front Feet	30-36 Front Feet	40 Front Feet	50 Front Feet	
Richmond Hill	\$5,500	\$4,650	\$4,250	\$4,100	\$154,153
Markham	\$5,800	\$4,750	\$4,250	\$4,200	\$157,981
Maple	\$6,100	\$5,450	\$5,350	\$5,200	\$191,505
Woodbridge	\$6,200	\$5,550	\$5,450	\$5,300	\$195,034
Newmarket	\$3,300	\$3,300	\$3,150	\$3,150	\$97,528
Mississauga	\$6,200	\$5,600	\$4,750	\$4,400	\$169,787
Brampton	\$4,450	\$4,250	\$4,000	\$3,850	\$150,892
Pickering	\$4,550	\$3,500	\$3,300	\$2,800	\$108,255
Ajax	\$3,400	\$3,400	\$3,200	\$2,700	\$113,310
Whitby	\$3,400	\$3,200	\$3,000	\$2,700	\$106,200
Oshawa	\$2,800	\$2,400	\$2,400	\$1,900	\$84,985
Oakville	\$5,450	\$4,750	\$4,600	\$4,650	\$160,740
Burlington	\$4,000	\$3,400	\$3,300	\$3,100	\$103,343
Average Price Per Front Foot	\$5,067	\$4,416	\$4,112	\$3,923	
Average Price/Lot	\$101,345	\$145,744	\$164,489	\$196,165	\$148,167
Source: Calculations by Will Dunning Inc., using data from MCAP Financial Corporation Note: For each category, MCAP provides a range of estimated prices. In this calculation, the mid-points of each range have been used.					



Table A-5 Change During Spring 2002 to Spring 2005 Average Prices (Per Front Foot) for Building Lots in the GTA Using Data from MCAP Financial Lot Value Reports					
House Type	Town House	Single-Detached			Weighted Average Price/Lot
Lot Size	20 Front Feet	30-36 Front Feet	40 Front Feet	50 Front Feet	
Richmond Hill	\$2,300	\$1,500	\$1,350	\$1,400	\$52,729
Markham	\$2,600	\$1,750	\$1,500	\$1,700	\$61,003
Maple	\$2,800	\$2,350	\$2,550	\$2,600	\$88,532
Woodbridge	\$2,800	\$2,350	\$2,550	\$2,600	\$88,532
Newmarket	\$700	\$900	\$950	\$1,150	\$26,966
Mississauga	\$2,700	\$2,300	\$1,700	\$1,700	\$68,086
Brampton	\$1,650	\$1,800	\$1,650	\$1,750	\$64,117
Pickering	\$1,650	\$800	\$800	\$600	\$30,890
Ajax	\$700	\$1,000	\$1,050	\$800	\$33,564
Whitby	\$1,200	\$1,200	\$1,200	\$1,100	\$40,942
Oshawa	\$900	\$700	\$800	\$500	\$25,523
Oakville	\$2,350	\$1,850	\$2,000	\$2,150	\$68,129
Burlington	\$1,300	\$1,000	\$1,100	\$1,100	\$33,348
Average Price Per Front Foot	\$2,043	\$1,711	\$1,612	\$1,654	
Average Price/Lot	\$40,865	\$56,449	\$64,475	\$82,698	\$58,970

Source: Calculations by Will Dunning Inc., using data from MCAP Financial Corporation
Note: For each category, MCAP provides a range of estimated prices. In this calculation, the mid-points of each range have been used.



Appendix “B”

Results of Housing Market Simulations



“Status Quo” Scenario

<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2002	38,534	15,791	54,325
2003	30,931	12,234	43,165
2004	27,946	13,774	41,720
2005	27,864	16,452	44,317
2006	27,236	15,544	42,780
2007	33,033	18,117	51,150
2008	32,644	18,796	51,441
2009	26,082	15,583	41,665
Averages			
2002-2005	31,319	14,563	45,882
2006-2009	29,749	17,010	46,759

Source: Will Dunning Inc.

	2006	2007	2008	2009	Total 2006-2009
Low-Rise Ownership Units Started	30,444	34,249	34,641	30,421	129,755
High-Rise Ownership Units Started	18,095	17,723	20,771	20,033	76,623
Total Home Ownership Units Started	48,539	51,972	55,412	50,454	206,378
Employment Generated (Person Years)	156,719	170,503	178,724	160,902	666,848
Federal Revenues (2004 \$ Millions)	\$2,407	\$2,619	\$2,745	\$2,472	\$10,244
Provincial Revenues (2004 \$ Millions)	\$789	\$860	\$899	\$808	\$3,356
Municipal Revenues (2004 \$ Millions)	\$850	\$934	\$969	\$866	\$3,618
Revenues for 3 Levels of Government (2004 \$ Millions)	\$4,046	\$4,413	\$4,613	\$4,146	\$17,218
Incremental Realty Taxes (2004 \$ Millions)	\$144	\$157	\$164	\$148	\$614

Source: Will Dunning Inc.



Assuming 0.5 Percentage Point Increase in Interest Rates

Table B-3 Forecast of New Home Sales in the Greater Toronto Area Assuming 0.5 Percentage Point Increase in Interest Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	26,657	15,035	41,692
2007	31,823	16,517	48,340
2008	31,132	16,949	48,081
2009	25,633	13,962	39,595
Annual Averages 2006-2009			
This Scenario	28,811	15,616	44,427
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-3.2%	-8.2%	-5.0%
Source: Will Dunning Inc.			

Table B-4 Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009 Assuming 0.5 Percentage Point Increase in Interest Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	126,395	129,755	-3,360	-2.6%
High-Rise Ownership Units Started	71,278	76,623	-5,345	-7.0%
Total Home Ownership Units Started	197,673	206,378	-8,705	-4.2%
Employment Generated (Person Years)	642,176	666,848	-24,672	-3.7%
Federal Revenues (2004 \$ Millions)	\$9,865	\$10,244	-\$379	-3.7%
Provincial Revenues (2004 \$ Millions)	\$3,234	\$3,356	-\$122	-3.6%
Municipal Revenues (2004 \$ Millions)	\$3,496	\$3,618	-\$122	-3.4%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$16,595	\$17,218	-\$623	-3.6%
Incremental Realty Taxes (2004 \$ Millions)	\$591	\$614	-\$23	-3.7%
Source: Will Dunning Inc.				



Assuming 1.0 Percentage Point Increase in Interest Rates

Table B-5 Forecast of New Home Sales in the Greater Toronto Area Assuming 1.0 Percentage Point Increase in Interest Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	25,425	14,249	39,674
2007	30,159	14,735	44,894
2008	29,288	15,003	44,291
2009	24,869	12,283	37,152
Annual Averages 2006-2009			
This Scenario	27,435	14,068	41,503
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-7.8%	-17.3%	-11.2%
Source: Will Dunning Inc.			

Table B-6 Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009 Assuming 1.0 Percentage Point Increase in Interest Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	121,554	129,755	-8,201	-6.3%
High-Rise Ownership Units Started	65,206	76,623	-11,417	-14.9%
Total Home Ownership Units Started	186,760	206,378	-19,618	-9.5%
Employment Generated (Person Years)	610,216	666,848	-56,632	-8.5%
Federal Revenues (2004 \$ Millions)	\$9,374	\$10,244	-\$870	-8.5%
Provincial Revenues (2004 \$ Millions)	\$3,076	\$3,356	-\$281	-8.4%
Municipal Revenues (2004 \$ Millions)	\$3,334	\$3,618	-\$284	-7.9%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$15,784	\$17,218	-\$1,435	-8.3%
Incremental Realty Taxes (2004 \$ Millions)	\$562	\$614	-\$52	-8.5%
Source: Will Dunning Inc.				



Assuming 1.5 Percentage Point Increase in Interest Rates

Table B-7 Forecast of New Home Sales in the Greater Toronto Area Assuming 1.5 Percentage Point Increase in Interest Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	23,656	13,229	36,885
2007	28,145	12,815	40,960
2008	27,199	12,995	40,194
2009	23,867	10,575	34,442
Annual Averages 2006-2009			
This Scenario	25,717	12,404	38,120
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-13.6%	-27.1%	-18.5%
Source: Will Dunning Inc.			

Table B-8 Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009 Assuming 1.5 Percentage Point Increase in Interest Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	115,557	129,755	-14,198	-10.9%
High-Rise Ownership Units Started	58,568	76,623	-18,055	-23.6%
Total Home Ownership Units Started	174,126	206,378	-32,252	-15.6%
Employment Generated (Person Years)	572,573	666,848	-94,275	-14.1%
Federal Revenues (2004 \$ Millions)	\$8,795	\$10,244	-\$1,448	-14.1%
Provincial Revenues (2004 \$ Millions)	\$2,888	\$3,356	-\$468	-13.9%
Municipal Revenues (2004 \$ Millions)	\$3,141	\$3,618	-\$477	-13.2%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$14,825	\$17,218	-\$2,394	-13.9%
Incremental Realty Taxes (2004 \$ Millions)	\$527	\$614	-\$87	-14.1%
Source: Will Dunning Inc.				



Assuming 2.0 Percentage Point Increase in Interest Rates

Table B-9 Forecast of New Home Sales in the Greater Toronto Area Assuming 2.0 Percentage Point Increase in Interest Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	21,457	12,014	33,471
2007	25,869	10,793	36,662
2008	24,931	10,950	35,882
2009	22,684	8,860	31,544
Annual Averages 2006-2009			
This Scenario	23,735	10,654	34,390
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-20.2%	-37.4%	-26.5%
Source: Will Dunning Inc.			

Table B-10 Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009 Assuming 2.0 Percentage Point Increase in Interest Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	108,673	129,755	-21,082	-16.2%
High-Rise Ownership Units Started	51,500	76,623	-25,123	-32.8%
Total Home Ownership Units Started	160,173	206,378	-46,205	-22.4%
Employment Generated (Person Years)	530,575	666,848	-136,272	-20.4%
Federal Revenues (2004 \$ Millions)	\$8,150	\$10,244	-\$2,093	-20.4%
Provincial Revenues (2004 \$ Millions)	\$2,679	\$3,356	-\$677	-20.2%
Municipal Revenues (2004 \$ Millions)	\$2,924	\$3,618	-\$695	-19.2%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$13,753	\$17,218	-\$3,465	-20.1%
Incremental Realty Taxes (2004 \$ Millions)	\$488	\$614	-\$125	-20.4%
Source: Will Dunning Inc.				



Assuming 2.5 Percentage Point Increase in Interest Rates

Table B-11 Forecast of New Home Sales in the Greater Toronto Area Assuming 2.5 Percentage Point Increase in Interest Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	18,930	10,639	29,569
2007	23,402	8,696	32,098
2008	22,533	8,891	31,424
2009	21,362	7,153	28,515
Annual Averages 2006-2009			
This Scenario	21,557	8,845	30,402
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-27.5%	-48.0%	-35.0%
Source: Will Dunning Inc.			

Table B-12 Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009 Assuming 2.5 Percentage Point Increase in Interest Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	101,124	129,755	-28,631	-22.1%
High-Rise Ownership Units Started	44,113	76,623	-32,510	-42.4%
Total Home Ownership Units Started	145,237	206,378	-61,141	-29.6%
Employment Generated (Person Years)	485,325	666,848	-181,523	-27.2%
Federal Revenues (2004 \$ Millions)	\$7,455	\$10,244	-\$2,788	-27.2%
Provincial Revenues (2004 \$ Millions)	\$2,453	\$3,356	-\$903	-26.9%
Municipal Revenues (2004 \$ Millions)	\$2,688	\$3,618	-\$930	-25.7%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$12,597	\$17,218	-\$4,621	-26.8%
Incremental Realty Taxes (2004 \$ Millions)	\$447	\$614	-\$167	-27.2%
Source: Will Dunning Inc.				



Assuming \$10,000 Policy-Driven Increase in House Prices

Table B-13			
Forecast of New Home Sales in the Greater Toronto Area			
Assuming \$10,000 Policy-Driven Price Increase			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	25,942	15,425	41,367
2007	30,496	17,775	48,271
2008	29,182	18,257	47,439
2009	22,186	14,964	37,150
Annual Averages 2006-2009			
This Scenario	26,952	16,605	43,557
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-9.4%	-2.4%	-6.8%
Source: Will Dunning Inc.			

Table B-14				
Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009				
Assuming \$10,000 Policy-Driven Price Increase Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	120,723	129,755	-9,032	-7.0%
High-Rise Ownership Units Started	75,191	76,623	-1,432	-1.9%
Total Home Ownership Units Started	195,914	206,378	-10,464	-5.1%
Employment Generated (Person Years)	629,027	666,848	-37,821	-5.7%
Federal Revenues (2004 \$ Millions)	\$9,750	\$10,244	-\$493	-4.8%
Provincial Revenues (2004 \$ Millions)	\$3,193	\$3,356	-\$164	-4.9%
Municipal Revenues (2004 \$ Millions)	\$3,889	\$3,618	\$271	7.5%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$16,832	\$17,218	-\$386	-2.2%
Incremental Realty Taxes (2004 \$ Millions)	\$598	\$614	-\$15	-2.5%
Source: Will Dunning Inc.				
Note: For the calculation of municipal revenues, the \$10,000 policy-driven increase is assumed to include a \$5,000 increase in Development Charges				



Assuming \$20,000 Policy-Driven Increase in House Prices

Table B-15			
Forecast of New Home Sales in the Greater Toronto Area			
Assuming \$20,000 Policy-Driven Price Increase			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	24,584	15,280	39,864
2007	27,834	17,370	45,204
2008	25,606	17,640	43,246
2009	18,225	14,266	32,491
Annual Averages 2006-2009			
This Scenario	24,062	16,139	40,201
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-19.1%	-5.1%	-14.0%
Source: Will Dunning Inc.			

Table B-16				
Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009				
Assuming \$20,000 Policy-Driven Price Increase Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	111,374	129,755	-18,381	-14.2%
High-Rise Ownership Units Started	73,519	76,623	-3,104	-4.1%
Total Home Ownership Units Started	184,893	206,378	-21,485	-10.4%
Employment Generated (Person Years)	589,461	666,848	-77,387	-11.6%
Federal Revenues (2004 \$ Millions)	\$9,221	\$10,244	-\$1,023	-10.0%
Provincial Revenues (2004 \$ Millions)	\$3,017	\$3,356	-\$339	-10.1%
Municipal Revenues (2004 \$ Millions)	\$4,095	\$3,618	\$477	13.2%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$16,333	\$17,218	-\$885	-5.1%
Incremental Realty Taxes (2004 \$ Millions)	\$579	\$614	-\$34	-5.6%
Source: Will Dunning Inc.				
Note: For the calculation of municipal revenues, the \$20,000 policy-driven increase is assumed to include a \$10,000 increase in Development Charges				



Assuming \$30,000 Policy-Driven Increase in House Prices

Table B-17			
Forecast of New Home Sales			
in the Greater Toronto Area			
Assuming \$30,000 Policy-Driven Price Increase			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	23,166	15,109	38,275
2007	25,064	16,909	41,973
2008	21,950	16,959	38,909
2009	14,240	13,511	27,751
Annual Averages 2006-2009			
This Scenario	21,105	15,622	36,727
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-29.1%	-8.2%	-21.5%
Source: Will Dunning Inc.			

Table B-18				
Total Economic and Fiscal Impacts of GTA Starts of				
Home Ownership Housing During 2006 to 2009				
Assuming \$30,000 Policy-Driven Price Increase				
Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	101,787	129,755	-27,968	-21.6%
High-Rise Ownership Units Started	71,642	76,623	-4,981	-6.5%
Total Home Ownership Units Started	173,429	206,378	-32,949	-16.0%
Employment Generated (Person Years)	548,527	666,848	-118,321	-17.7%
Federal Revenues (2004 \$ Millions)	\$8,659	\$10,244	-\$1,584	-15.5%
Provincial Revenues (2004 \$ Millions)	\$2,831	\$3,356	-\$525	-15.6%
Municipal Revenues (2004 \$ Millions)	\$3,803	\$3,618	\$184	5.1%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$15,293	\$17,218	-\$1,925	-11.2%
Incremental Realty Taxes (2004 \$ Millions)	\$557	\$614	-\$57	-9.3%
Source: Will Dunning Inc.				
Note: For the calculation of municipal revenues, the \$30,000 policy-driven increase is assumed to include a \$10,000 increase in Development Charges				



Assuming \$40,000 Policy-Driven Increase in House Prices

Table B-19			
Forecast of New Home Sales in the Greater Toronto Area			
Assuming \$40,000 Policy-Driven Price Increase			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	21,690	14,914	36,604
2007	22,201	16,399	38,600
2008	18,242	16,228	34,470
2009	10,264	12,713	22,977
Annual Averages 2006-2009			
This Scenario	18,099	15,063	33,163
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-39.2%	-11.4%	-29.1%
Source: Will Dunning Inc.			

Table B-20				
Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009				
Assuming \$40,000 Policy-Driven Price Increase Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	92,024	129,755	-37,730	-29.1%
High-Rise Ownership Units Started	69,591	76,623	-7,032	-9.2%
Total Home Ownership Units Started	161,615	206,378	-44,763	-21.7%
Employment Generated (Person Years)	506,539	666,848	-160,309	-24.0%
Federal Revenues (2004 \$ Millions)	\$8,071	\$10,244	-\$2,173	-21.2%
Provincial Revenues (2004 \$ Millions)	\$2,636	\$3,356	-\$720	-21.5%
Municipal Revenues (2004 \$ Millions)	\$3,503	\$3,618	-\$116	-3.2%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$14,209	\$17,218	-\$3,009	-17.5%
Incremental Realty Taxes (2004 \$ Millions)	\$531	\$614	-\$83	-13.5%
Source: Will Dunning Inc.				
Note: For the calculation of municipal revenues, the \$40,000 policy-driven increase is assumed to include a \$10,000 increase in Development Charges				



Assuming \$50,000 Policy-Driven Increase in House Prices

Table B-21			
Forecast of New Home Sales in the Greater Toronto Area			
Assuming \$50,000 Policy-Driven Price Increase			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	20,158	14,695	34,853
2007	19,260	15,844	35,103
2008	14,508	15,457	29,965
2009	6,318	11,886	18,204
Annual Averages 2006-2009			
This Scenario	15,061	14,470	29,531
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-49.4%	-14.9%	-36.8%
Source: Will Dunning Inc.			

Table B-22				
Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009				
Assuming \$50,000 Policy-Driven Price Increase Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	82,142	129,755	-47,613	-36.7%
High-Rise Ownership Units Started	67,391	76,623	-9,232	-12.0%
Total Home Ownership Units Started	149,533	206,378	-56,845	-27.5%
Employment Generated (Person Years)	463,761	666,848	-203,087	-30.5%
Federal Revenues (2004 \$ Millions)	\$7,459	\$10,244	-\$2,785	-27.2%
Provincial Revenues (2004 \$ Millions)	\$2,434	\$3,356	-\$923	-27.5%
Municipal Revenues (2004 \$ Millions)	\$3,197	\$3,618	-\$421	-11.6%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$13,090	\$17,218	-\$4,128	-24.0%
Incremental Realty Taxes (2004 \$ Millions)	\$502	\$614	-\$112	-18.3%
Source: Will Dunning Inc. Note: For the calculation of municipal revenues, the \$50,000 policy-driven increase is assumed to include a \$10,000 increase in Development Charges				



Assuming \$10,000 Policy-Driven Increase in House Prices and 0.5 Percentage Point Increase in the Five Year Mortgage Rate

Table B-23			
Forecast of New Home Sales in the Greater Toronto Area			
Assuming \$10,000 Policy-Driven Price Increase and 0.5 Point Increase in Mortgage Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	25,146	14,819	39,965
2007	29,029	16,037	45,066
2008	27,451	16,272	43,723
2009	21,537	13,208	34,745
Annual Averages 2006-2009			
This Scenario	25,791	15,084	40,875
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-13.3%	-11.3%	-12.6%
Source: Will Dunning Inc.			

Table B-24				
Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009				
Assuming \$10,000 Policy-Driven Price Increase and 0.5 Point Increase in Mortgage Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	116,618	129,755	-13,137	-10.1%
High-Rise Ownership Units Started	69,328	76,623	-7,295	-9.5%
Total Home Ownership Units Started	185,946	206,378	-20,432	-9.9%
Employment Generated (Person Years)	600,353	666,848	-66,495	-10.0%
Federal Revenues (2004 \$ Millions)	\$9,305	\$10,244	-\$938	-9.2%
Provincial Revenues (2004 \$ Millions)	\$3,049	\$3,356	-\$307	-9.1%
Municipal Revenues (2004 \$ Millions)	\$3,721	\$3,618	\$102	2.8%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$16,075	\$17,218	-\$1,143	-6.6%
Incremental Realty Taxes (2004 \$ Millions)	\$571	\$614	-\$43	-6.9%
Source: Will Dunning Inc.				
Note: For the calculation of municipal revenues, the \$10,000 policy-driven increase is assumed to include a \$5,000 increase in Development Charges				



**Assuming \$20,000 Policy-Driven Increase in House Prices and
1.0 Percentage Point Increase in the Five Year Mortgage Rate**

Table B-25			
Forecast of New Home Sales in the Greater Toronto Area Assuming \$20,000 Policy-Driven Price Increase and 1.0 Point Increase in Mortgage Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	21,913	13,593	35,506
2007	23,970	13,450	37,420
2008	21,426	13,315	34,741
2009	16,247	10,443	26,690
Annual Averages 2006-2009			
This Scenario	20,889	12,700	33,590
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-29.8%	-25.3%	-28.2%
Source: Will Dunning Inc.			

Table B-26				
Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009 Assuming \$20,000 Policy-Driven Price Increase and 1.0 Point Increase in Mortgage Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	100,311	129,755	-29,444	-22.7%
High-Rise Ownership Units Started	60,069	76,623	-16,554	-21.6%
Total Home Ownership Units Started	160,380	206,378	-45,998	-22.3%
Employment Generated (Person Years)	517,364	666,848	-149,484	-22.4%
Federal Revenues (2004 \$ Millions)	\$8,091	\$10,244	-\$2,153	-21.0%
Provincial Revenues (2004 \$ Millions)	\$2,652	\$3,356	-\$705	-21.0%
Municipal Revenues (2004 \$ Millions)	\$3,606	\$3,618	-\$12	-0.3%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$14,349	\$17,218	-\$2,870	-16.7%
Incremental Realty Taxes (2004 \$ Millions)	\$508	\$614	-\$105	-17.2%
Source: Will Dunning Inc.				
Note: For the calculation of municipal revenues, the \$20,000 policy-driven increase is assumed to include a \$10,000 increase in Development Charges				



Assuming \$30,000 Policy-Driven Increase in House Prices and 1.5 Percentage Point Increase in the Five Year Mortgage Rate

Table B-27			
Forecast of New Home Sales in the Greater Toronto Area			
Assuming \$30,000 Policy-Driven Price Increase and 1.5 Point Increase in Mortgage Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	17,701	11,916	29,617
2007	18,079	10,433	28,512
2008	14,789	10,012	24,801
2009	10,396	7,368	17,764
Annual Averages 2006-2009			
This Scenario	15,241	9,932	25,173
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-48.8%	-41.6%	-46.2%
Source: Will Dunning Inc.			

Table B-28				
Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009				
Assuming \$30,000 Policy-Driven Price Increase and 1.5 Point Increase in Mortgage Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	81,499	129,755	-48,256	-37.2%
High-Rise Ownership Units Started	49,142	76,623	-27,481	-35.9%
Total Home Ownership Units Started	130,641	206,378	-75,737	-36.7%
Employment Generated (Person Years)	421,084	666,848	-245,764	-36.9%
Federal Revenues (2004 \$ Millions)	\$6,644	\$10,244	-\$3,600	-35.1%
Provincial Revenues (2004 \$ Millions)	\$2,178	\$3,356	-\$1,179	-35.1%
Municipal Revenues (2004 \$ Millions)	\$2,934	\$3,618	-\$684	-18.9%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$11,756	\$17,218	-\$5,462	-31.7%
Incremental Realty Taxes (2004 \$ Millions)	\$427	\$614	-\$187	-30.5%
Source: Will Dunning Inc.				
Note: For the calculation of municipal revenues, the \$30,000 policy-driven increase is assumed to include a \$10,000 increase in Development Charges				



Assuming \$40,000 Policy-Driven Increase in House Prices and 2.0 Percentage Point Increase in the Five Year Mortgage Rate

Table B-29			
Forecast of New Home Sales in the Greater Toronto Area			
Assuming \$40,000 Policy-Driven Price Increase and 2.0 Point Increase in Mortgage Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	12,702	9,847	22,550
2007	11,592	7,069	18,661
2008	7,747	6,444	14,191
2009	4,152	4,053	8,205
Annual Averages 2006-2009			
This Scenario	9,048	6,853	15,902
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-69.6%	-59.7%	-66.0%
Source: Will Dunning Inc.			

Table B-30				
Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009				
Assuming \$40,000 Policy-Driven Price Increase and 2.0 Point Increase in Mortgage Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	60,865	129,755	-68,890	-53.1%
High-Rise Ownership Units Started	36,858	76,623	-39,765	-51.9%
Total Home Ownership Units Started	97,723	206,378	-108,655	-52.6%
Employment Generated (Person Years)	314,821	666,848	-352,026	-52.8%
Federal Revenues (2004 \$ Millions)	\$5,011	\$10,244	-\$5,232	-51.1%
Provincial Revenues (2004 \$ Millions)	\$1,643	\$3,356	-\$1,714	-51.1%
Municipal Revenues (2004 \$ Millions)	\$2,194	\$3,618	-\$1,425	-39.4%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$8,847	\$17,218	-\$8,371	-48.6%
Incremental Realty Taxes (2004 \$ Millions)	\$329	\$614	-\$285	-46.4%
Source: Will Dunning Inc.				
Note: For the calculation of municipal revenues, the \$40,000 policy-driven increase is assumed to include a \$10,000 increase in Development Charges				



Assuming \$50,000 Policy-Driven Increase in House Prices and 2.5 Percentage Point Increase in the Five Year Mortgage Rate

Table B-31			
Forecast of New Home Sales in the Greater Toronto Area			
Assuming \$50,000 Policy-Driven Price Increase and 2.5 Point Increase in Mortgage Rates			
<i>Year</i>	<i>Low-Rise Homes</i>	<i>Condominium Apartments</i>	<i>Total</i>
2006	7,144	7,458	14,602
2007	4,762	3,445	8,207
2008	498	2,687	3,185
2009	0	559	559
Annual Averages 2006-2009			
This Scenario	3,101	3,537	6,638
"Status Quo" Scenario	29,749	17,010	46,759
% Change Versus Status Quo	-89.6%	-79.2%	-85.8%
Source: Will Dunning Inc.			

Table B-32				
Total Economic and Fiscal Impacts of GTA Starts of Home Ownership Housing During 2006 to 2009				
Assuming \$50,000 Policy-Driven Price Increase and 2.5 Point Increase in Mortgage Rates Versus "Status Quo" Scenario				
	This Scenario	"Status Quo" Scenario	Change in Units or Dollars	% Change
Low-Rise Ownership Units Started	39,110	129,755	-90,645	-69.9%
High-Rise Ownership Units Started	23,537	76,623	-53,086	-69.3%
Total Home Ownership Units Started	62,647	206,378	-143,731	-69.6%
Employment Generated (Person Years)	201,969	666,848	-464,879	-69.7%
Federal Revenues (2004 \$ Millions)	\$3,243	\$10,244	-\$7,001	-68.3%
Provincial Revenues (2004 \$ Millions)	\$1,063	\$3,356	-\$2,293	-68.3%
Municipal Revenues (2004 \$ Millions)	\$1,408	\$3,618	-\$2,211	-61.1%
Revenues for 3 Levels of Government (2004 \$ Millions)	\$5,714	\$17,218	-\$11,505	-66.8%
Incremental Realty Taxes (2004 \$ Millions)	\$217	\$614	-\$396	-64.6%
Source: Will Dunning Inc.				
Note: For the calculation of municipal revenues, the \$50,000 policy-driven increase is assumed to include a \$10,000 increase in Development Charges				



www.gthba.ca
416-391-3445

