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Multiple Listing Service® Residential Sales



Summary

Residential sales through the Multiple Listing Service (MLS®) provide a significant contribution to BC economy. Every 100 transactions in 2007 generated nearly \$4.2 million in economic output and \$2 million in Gross Domestic Product (GDP). More than 102,000 homes were sold through the MLS® in 2007, totaling more than \$4.3 billion in economic output and \$2 billion in GDP.

Home sales generate employment. Every 100 MLS® residential sales in 2007 generated 28 full-time equivalent (FTE) jobs. This means more than 28,000 jobs were generated because of MLS® residential sales activity last year.

One hundred typical MLS® residential transactions added nearly \$1.3 million in household income. Total MLS® residential sales in 2007 contributed more than \$1.3 billion in BC household income.

Residential transactions also create significant tax revenue. Every 100 MLS® residential sales in 2007 accounted for nearly \$300,000 in federal taxes, \$660,000 in provincial taxes and \$32,000 in municipal taxes. Last year, MLS® residential sales generated approximately \$300 million in federal taxes, \$680 million in provincial taxes and \$33 million in municipal taxes. Over \$1 billion in tax revenue was generated by MLS® home sales last year.

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Economic Impact

100 MLS® Residential Sales	Direct	Indirect	Induced	Total
Output (\$)	2,316,900	1,445,000	429,900	4,191,800
GDP (\$)	1,143,200	587,400	243,500	1,974,100
Employment (FTE) #	15	10	4	28
Household Income (\$)	747,700	396,200	153,400	1,297,300
Tax Revenue (\$)	810,300	97,800	79,900	988,100
Federal (\$)	210,000	48,400	35,700	294,000
Provincial (\$)	586,300	38,300	37,600	662,100
Municipal (\$)	14,000	11,200	6,600	31,900

Source: BC Input-Output Model, Stats Can SHS, BCREA

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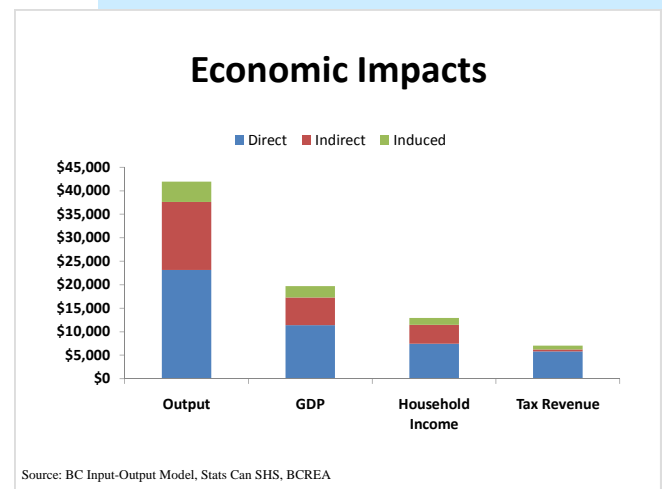
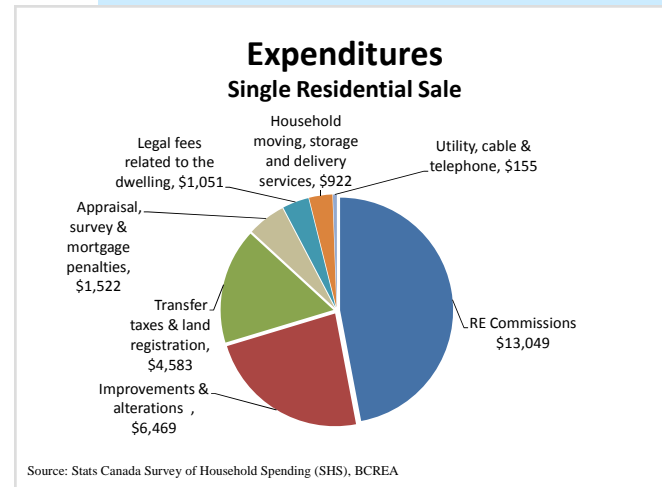
Method

The sale of a residential property triggers several expenditures that impact the provincial economy. Whenever homes are bought and sold, lawyers, appraisers, REALTORS®, surveyors and other professionals collect fees. Governments also collect significant taxes, and many homebuyers renovate their homes to suit their lifestyles.

A typical residential sale in BC induces \$27,751 in expenditures. These expenditures were captured by the Statistics Canada 2006 Survey of Household Spending, and have been inflated by the BC Consumer Price Index to reflect actual costs in 2007. Since only a fraction of BC households purchase a home in any given year, the expenditures are an average of households that actually moved in 2006, rather than an average of all BC household expenditures.

The impact of these expenditures reverberates through the economy, creating further ancillary spending that increases the total economic contribution of MLS® residential sales in BC. The direct impact measures the change in economic activity required to satisfy the initial change in demand. The indirect impact measures the change in the provincial economy generated by the activity of other sectors that supply goods and services to the direct activities. The induced impact measures the overall impact of more income accruing to the household sector. It reflects spending by workers labouring directly on sales as well as those working in industries directly or indirectly supplying goods and services to the transaction.

BC Statistics, a department of the provincial government, was contracted to inject the average residential sale expenditures into the BC Input-Output Model (BCIOM) to derive the total economic impact to the province. The model is a snapshot of the BC economy that includes details on 727 commodities, 300 industries and 170 final demand categories. It predicts how much additional production is generated by a change



in demand for one or more commodities, or by a change in the output of an industry.

The BCIOM was queried to measure the direct, indirect and induced impacts of a typical residential sale to the provincial economy. The model provided output in five different categories: Output, GDP, Employment, household income and tax revenues.

Induced effects should be used with caution, since expenditures are consumer spending on housing related goods and services.

Estimates in this report are likely accurate to +/- 10%

Economic Impact

Single Residential Transaction	Direct	Indirect	Induced	Total
Output (\$)	23,169	14,450	4,299	41,918
GDP (\$)	11,432	5,874	2,435	19,741
Employment (FTE) #	0.15	0.10	0.04	0.28
Household Income (\$)	7,477	3,962	1,534	12,973
Tax Revenue (\$)	8,103	978	799	9,881
Federal (\$)	2,100	484	357	2,940
Provincial (\$)	5,863	383	376	6,621
Municipal (\$)	140	112	66	319

Source: BC Input-Output Model, Stats Can SHS, BCREA

Findings

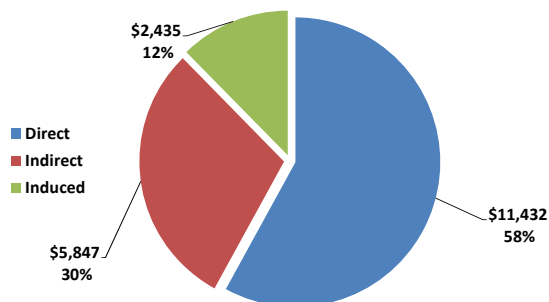
Output:

Each residential sale in BC generated about \$23,000 in direct economic output, \$14,500 in indirect output and \$4,300 of induced output in 2007. The total economic output (direct, indirect and induced) to the province was almost \$42,000 per residential transaction. Economic output measures the total value of production in all industries associated with a residential sale.

For every 100 MLS® residential sales in 2007, more than \$4 million in total economic output was generated. Total annual MLS® residential sales generated \$2.38 billion in direct output, \$1.4 billion in indirect output and \$440 million in induced output. Total economic output of MLS® residential sales was more than \$4.3 billion last year.

** The economic output is useful in determining which industries rely on labour and capital as opposed to material and service inputs in production, especially when compared to GDP. However, the double counting involved in calculating economic output overestimates the total impact to the economy.*

GDP Impact Single Residential Sale



Source: BC Input-Output Model, Stats Can SHS, BCREA

GDP :

The impact of MLS® residential sales to provincial GDP is the best measure of the overall economic effect, since the value of the work completed by each industry corresponds to that industry and isn't double counted. Each residential sale contributed a total of nearly \$20,000 to the provincial GDP last year. The direct impact was valued at \$11,400, while the indirect and induced impacts contributed \$5,900 and \$2,400 respectively.

Every 100 MLS® residential sales generated nearly \$2 million in provincial GDP. In 2007, MLS® residential sales accounted for a direct impact of almost \$1.2 billion, an indirect impact of \$600 million and an induced impact of \$250 million. The total impact on provincial GDP was more than \$2 billion.

Employment:

Economic activity creates employment. A typical residential sale generates 0.28 full time equivalent (FTE) jobs. While a single transaction doesn't provide a large number of jobs, the cumulative effect of many thousands of homes sold is significant. Every 100 MLS® home sales generated 28 FTE jobs.

Total Economic Impact**MLS® Residential Sales in 2007**

	Direct	Indirect	Induced	Total
Output (\$Mil)	2,384	1,487	442	4,313
GDP (\$Mil)	1,176	604	251	2,031
Employment (FTE) #	15,434	10,289	4,116	28,810
Household Income (\$Mil)	769	408	158	1,335
Tax Revenue (\$Mil)	834	101	82	1,017
Federal (\$Mil)	216	50	37	303
Provincial (\$Mil)	603	39	39	681
Municipal (\$Mil)	14	12	7	33

Source: BC Input-Output Model, Stats Can SHS, BCREA

In 2007, more than 102,000 homes were sold through the MLS®, generating more than 15,400 direct jobs, 10,289 indirect jobs and 4,100 induced jobs in the province. Total employment generated by MLS® residential sales in BC was 28,800 FTE jobs last year.

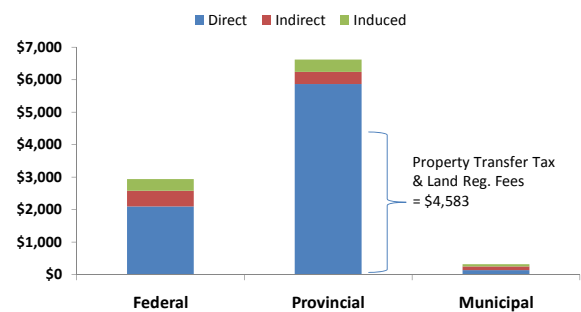
Household Income:

A typical residential transaction added nearly \$7,500 directly to household income, with another \$3,900 generated indirectly through the supply of goods and services. The induced impact was another \$1,500 for a total impact on household income of almost \$13,000.

Every 100 MLS® residential sales in BC generated a total of almost \$1.3 million in household income. Total MLS® residential sales in 2007 contributed to more than \$1.3 billion in BC household income.

Tax Revenues:

Residential sales contributed significantly to government tax revenues at all levels. The federal government garners \$2,100 in direct taxes, \$480 in indirect taxes and nearly \$360 in induced taxation on a typical MLS® residential sale. Total federal tax revenues were just over \$2,900 per residential transaction last

Tax Revenues

Source: BC Input-Output Model, Stats Can SHS, BCREA

year.

The province receives more tax revenue per residential transaction than the federal and municipal governments combined. The BC Property Transfer Tax makes up the lion's share of provincial tax revenues. A typical residential sale generates more than \$5,800 in direct provincial tax revenue, \$380 in indirect tax revenue and \$375 of induced tax revenue.

Municipal tax revenues are small by comparison with approximately \$140 in direct impact, \$110 in indirect impact and \$65 of induced impact. A total of \$320 in municipal tax revenue was generated by a typical MLS® residential transaction last year.

Every 100 MLS® residential sales accounted for nearly \$300,000 in total federal taxes, \$660,000 in total provincial taxes and \$32,000 in municipal taxes. Last year, MLS® residential sales in the province generated approximately \$300 million in federal tax revenue, \$680 million in provincial tax revenue and \$33 million in municipal tax revenue, a total of over \$1 billion.

Background: Input-Output Models and Analysis

Input-output analysis is based on statistical information about the flow of goods and services among various sectors of the economy. This information, presented in the form of tables, provides a comprehensive and detailed representation of the economy for a given year. An input-output model is essentially a database showing the relationship between commodity usage and industry output. It consists of three components:

- A table showing which commodities, both goods and services, are consumed by each industry in the process of production (the input matrix)
- A table showing which commodities are produced by each industry (the output matrix)
- A table showing which commodities are available for consumption by final users (the final demand matrix)

These data are combined into a single model of the economy which can be used to determine how much additional production is generated by a change in the demand for one or more commodities or by a change in the output of an industry. Changing the usage or production of a commodity or group of commodities is often referred to as shocking the model. The known relationship between goods and services in the economy is used to generate an estimate of the economic impact of such a change.

If a change in demand is met by increasing or decreasing imports from other jurisdictions, there is no effect on domestic production. All of the benefits or costs associated with employment generation or loss, and other economic effects, will occur outside the region. Therefore, it is important to identify whether a change in the demand for a good or service is met inside or outside a region.

The British Columbia Input-Output Model

The BCIOM can be viewed as a snapshot of the BC economy, taken in 2004. It is derived from the 2004 inter-provincial input-output tables developed by Statistics Canada and includes details on 727 commodities,

300 industries, 170 final demand categories and as set of computer algorithms to do the calculations required for the solution of the model. It can be used to predict how an increase or decrease in demand for the products of one industry will have an impact on other industries and, therefore, on the entire economy.

Limitations and Caveats

Input-output analysis is based on various assumptions about the economy and the interrelationships between industries. These assumptions are;

- Input-output models are linear. They assume that a given change in the demand for a commodity, or for the outputs of a given industry, will translate into a proportional change in production.
- Input-output models don't take into account the amount of time required for changes to happen. Economic adjustments resulting from a change in demand are assumed to happen immediately.
- It is assumed that there are no capacity constraints and that an increase in the demand for labour will result in an increase in employment (rather than simply redeploying workers).
- It is assumed that consumers spend an average of 80% of their personal income on goods and services. The remaining 20% of personal income is consumed by taxes, or goes into savings.
- The BCIOM is based on a snapshot of the BC economy in 2004. It is assumed that relationships between industries are relatively stable over time, so that the 2004 structure of the economy continues to be applicable today. However, it should be noted that employment estimates have been adjusted to reflect wage levels for the year of the expenditures in each case.
- The BCIOM does not distinguish between regional effects. It will not, for example, differentiate between the economic impact of a plant located in one region of the province and a similar plant elsewhere in the province.



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BCREA Economics provides timely research, analysis and information on economic factors affecting British Columbia and its housing markets.



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