

Economic Impact Assessment of Ottawa's Commercial Real Estate Industry



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Executive summary

Introduction

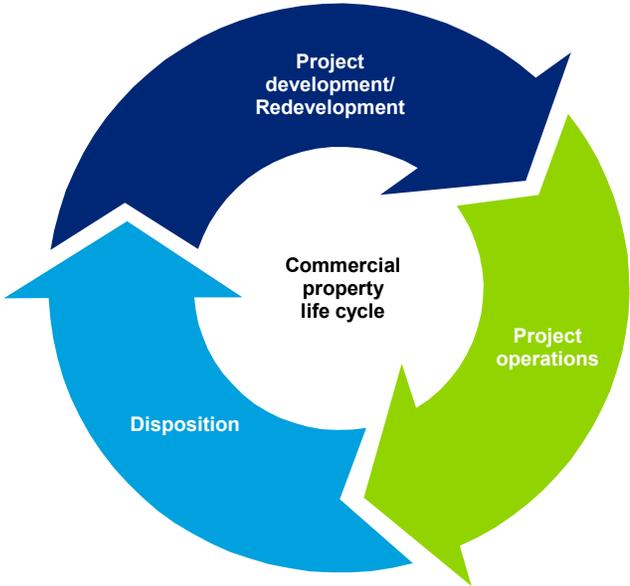
As commercial properties initiate their life cycle, there is significant and continuous impact to respective local and broader economies, including: spending, employment, income and municipal revenue. It is critical for the City's industry and business leaders, as well as government officials to recognize the commercial real estate industry's significant impact, in order to strengthen the decision making process and support the industry, and its substantial economic contributions.

Deloitte has undertaken a study to further understand and quantify the economic impact of the commercial real estate industry within the City of Ottawa. Our analysis includes an examination of the estimated direct and indirect economic impact of the development, construction, operational and transaction activity of Ottawa's office, retail and industrial property in 2011.

Commercial property life cycle

During the property development process, a range of professionals are engaged including: local developers, financial institutions, architects, planners, and engineers, to plan a given project, while working together with local governments. During construction, local contractors are employed for a given building and its tenants, construction materials are purchased, and local development charges are incurred.

Throughout the life and operations of these commercial properties, costs relating to property management, repairs and maintenance, leasing, administration and property taxes continue to be incurred. As property transactions take place, significant sales expenditure occurs, and financial, legal, valuation, brokerage and other expertise is employed.



Such economic activity across the commercial property life cycle supports numerous local businesses, and continues to drive economic output by these companies across the broader economy.

Key examples of economic output from spending, employment, income and tax impacts include:

	Development and Construction	Operations	Transactions
Economic output	<ul style="list-style-type: none"> • Hard construction costs • Soft construction costs • Fit-out and technology 	<ul style="list-style-type: none"> • Utilities • Insurance • Property management • Capital expenditure 	<ul style="list-style-type: none"> • Transaction value • Valuation fees • Brokerage fees • Legal fees
Employment	<ul style="list-style-type: none"> • Architects • Engineers • Other consultants • Construction labour 	<ul style="list-style-type: none"> • Management • Accounting • Maintenance workers • Leasing agents 	<ul style="list-style-type: none"> • Management/analysts • Brokers • Appraisers • Lawyers
Income	<p>Income of:</p> <ul style="list-style-type: none"> • Planners • Engineers • Architects • Construction labour • Technology providers 	<p>Income of:</p> <ul style="list-style-type: none"> • Management • Maintenance workers • Leasing agents 	<p>Income of:</p> <ul style="list-style-type: none"> • Brokers • Appraisers • Lawyers
Tax	<ul style="list-style-type: none"> • Developing charges 	<ul style="list-style-type: none"> • Property taxes 	

Economic impact of Ottawa’s commercial real estate industry

Office property impact

Ottawa’s office market is one of Canada’s major markets with approximately 37 million square feet¹, and one of Canada’s larger office sectors with respect to employment, which accommodates and supports an estimated 300,000 office sector employees². This base is largely due to the presence of the federal government, which, with over 110,000 employees in the National Capital Region, and 143,000 including Ottawa-Gatineau, is Ottawa’s largest employer. In addition, Ottawa is home to a significant technology centre, with an estimated 1,800 businesses employing approximately 80,000 people³.

The development, construction, fit-out, operations and transactions of Ottawa’s office properties in 2011 generated an estimated \$1.6 billion in total economic output impacts from spending, approximately total full-time employment of 9,500, and total income impacts of \$470 million. This is the largest from any of the commercial property sectors and reinforces the dominance of the impact of the federal government on the local economy.

Office impacts	Office industry employment	Economic output (billions)	Employment	Income (millions)
	300,000	\$1.6	9,500	\$470

¹ Cushman & Wakefield, 2012

² Conference Board of Canada, Metropolitan Outlook, 2012.

³ CMHC, “Employment – Ottawa”. 2012.

Retail property impact

The City of Ottawa currently supports a significant retail sector, holding approximately 20 million square feet of retail space⁴, which accommodates and supports an estimated 100,000 employees within Ottawa's retail based sectors⁵.

Ottawa's retail sales per capita is approximately \$13,100, approximately 9% higher than Ontario's average of \$12,000 per capita, and slightly lower than Canada's average of \$13,200 per capita. Interestingly, Ottawa realizes such levels of retail sales per capita with less retail space per capita (16 square feet) than the Canadian average (18 square feet).

The development, construction, fit-out, operations and transactions of Ottawa's retail properties in 2011 generated an estimated \$664 million in total economic output impacts, approximate total full-time employment of 4,900, and total income impacts of nearly \$245 million.

Retail impacts	Retail industry employment	Economic output (millions)	Employment	Income (millions)
	100,000	\$664	4,900	\$245

Industrial property impact

The City of Ottawa currently holds approximately 22 million square feet⁶, supporting over 90,000 employees within Ottawa's industrial based sectors, including manufacturing, construction, transport/warehousing, and primary and utilities, many of which can be expected to be accommodated within the City's industrial space⁷.

The development, construction, fit-out, operations and transactions of Ottawa's industrial properties in 2011 generated over \$426 million in total economic output impacts, approximately total full-time employment of 2,200, and total income impacts of \$112 million.

Industrial impacts	Industrial industry employment	Economic output (millions)	Employment	Income (millions)
	90,000	\$426	2,200	\$112

Development charge and property tax revenue

The City's commercial real estate industry also yields significant revenue to the City of Ottawa. In 2011, the City of Ottawa received approximately \$19 million in development charge revenue, and approximately \$592 million in property taxes, from non-residential property development and operations, respectively⁸. Through the generation of \$611 million in estimated total municipal revenue in 2011, the City's commercial real estate industry is a major contributor to the municipality and its annual operations.

2011 Development charge and property tax revenue (millions)	
Non-residential development charge revenue	\$19
Non-residential property tax revenue	\$592
Total non-residential municipal revenue	\$611

⁴ Cushman & Wakefield, 2012

⁵ Conference Board of Canada, Metropolitan Outlook, 2012.

⁶ Cushman & Wakefield, 2012

⁷ Conference Board of Canada, Metropolitan Outlook, 2012.

⁸ City of Ottawa, Annual Report 2011, and City of Ottawa Finance Department, 2012.

Conclusion

In summary, in 2011 the City of Ottawa's commercial real estate industry generated an estimated \$2.6 billion in total economic output impacts from spending activity. Another 16,600 people are estimated to be employed within the industry, including the property and asset managers through to service providers including brokers, lawyers, cleaners etc. These employees generate estimated income impacts of over \$827 million for the local economy. In addition, municipal revenue from non-residential development charges and property taxes total approximately \$611 million, representing a significant portion of the local municipality's revenue for operations.

Total commercial real estate impact

	Office, retail and industrial industry employment	Economic output (billions)	employment	Income (millions)	Municipal revenue (millions)
Total impacts	490,000	\$2.6	16,600	\$827	\$611

It is evident that the City of Ottawa's commercial real estate industry supports and accommodates Ottawa's sizeable commercial employment base, while generating extensive direct and indirect economic impacts to the Ottawa economy, and broader provincial economy.

Clearly, if these impacts were extended over the longer-term, and given potential future expansion of Ottawa's commercial sectors, the total impact of the City's commercial real estate industry would be increasingly significant. A simple extrapolation of the \$2.6 billion over the past decade yields an order of magnitude of some \$26 billion in impact to the City of Ottawa over this period. As such, the City's business leaders and government officials need to clearly understand the industry's impact and effectively engage with the local commercial real estate community, to ensure that appropriate decisions are made to effectively support and meet the needs of this very important industry.

Introduction

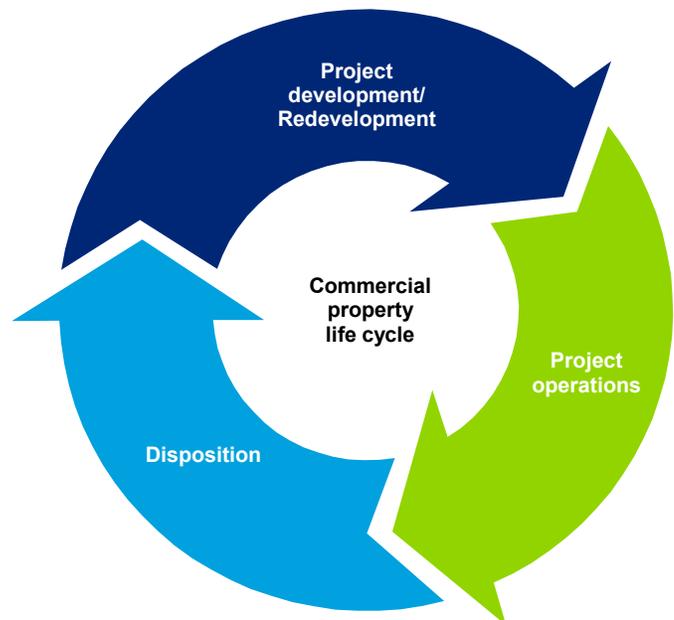
Our study

As commercial properties initiate the life cycle from development and construction through to operations, property management and ultimately disposition, there are significant economic impacts for the local economy including local spending, employment, income and property tax generation across local and broader regional economies.

In order to further understand and quantify such commercial real estate industry economic impacts within the City of Ottawa, Deloitte & Touche LLP (“Deloitte”) has undertaken an economic impact study of the City of Ottawa’s (the “City”) commercial real estate industry, including all classes of office, retail and industrial property. Our economic impact analysis includes an examination of the specific direct and indirect economic impacts of the development, construction, operational and transaction activity of Ottawa’s commercial real estate industry in 2011, representing annual economic impacts generated by the industry.

Commercial property life cycle

During the property development process, a wide range of professionals are engaged including local developers, financial institutions, architects, planners, engineers and numerous others to plan the project working together with local governments. During construction, local contractors and sub-contractors are employed for both the building and its tenants, construction materials are purchased, and local development charges are incurred. Throughout the life and operations of these commercial properties, costs such as those relating to property management, repairs and maintenance, leasing, administration and property taxes continue to be incurred on an on-going basis. As property transactions take place, significant sales expenditure occurs, and financial, legal, valuation, brokerage and other expertise is employed. Such economic activity at the development, operational and transaction stages supports numerous local businesses, and continues to drive spending by these companies across the broader economy.



Key examples of economic output from spending, employment, income and tax impacts across the City's commercial real estate industry are outlined below.

City level example of economic impacts of commercial real estate activity

	Development and Construction	Operations	Transactions
Economic output	<ul style="list-style-type: none"> • Hard construction costs • Soft construction costs • Fit-out and technology 	<ul style="list-style-type: none"> • Utilities • Insurance • Property management • Capital expenditure 	<ul style="list-style-type: none"> • Transaction value • Valuation fees • Brokerage fees • Legal fees
Employment	<ul style="list-style-type: none"> • Architects • Engineers • Other consultants • Construction labour 	<ul style="list-style-type: none"> • Management • Accounting • Maintenance workers • Leasing agents 	<ul style="list-style-type: none"> • Management/analysts • Brokers • Appraisers • Lawyers
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Tax	<ul style="list-style-type: none"> • Developing charges 	<ul style="list-style-type: none"> • Property taxes 	

Approach and methodology

Our study's approach and methodology includes the following:

- Discussions with Building Owners and Managers Association ("BOMA") Ottawa executives and select members including local real estate market professionals regarding Ottawa commercial real estate market dynamics and key model assumptions;
 - Review of detailed historical and current office, retail and industrial market data provided by Cushman & Wakefield, Conference Board of Canada and the City of Ottawa, as well as supplementary interviews. Model assumptions were developed from this data, including sector employment, total supply, vacancy rates, net rental rates, net absorption, new supply, operational expenses, sales transaction volume, development charges and property taxes.
 - Economic impact and input-output multiplier analysis of the office, retail and industrial components of Ottawa's commercial real estate industry, through annual property development and operation expenditure, employment, income and taxes. In order to identify the continuum of Ottawa's commercial real estate industry's economic activity, our impact analysis includes an examination of direct impacts that can be expected to take place within Ottawa, and resulting indirect economic impacts that take place within Ottawa. These direct and indirect impacts can be defined as follows:
 - *Direct impacts* – refers to the total value of goods and services, including wages and salaries, used in the production of goods and services within Ottawa's commercial real estate industry.
 - *Indirect impacts* – refers to the purchase of goods by suppliers to Ottawa's commercial real estate industry, which are then used in the production of goods and services within the industry.

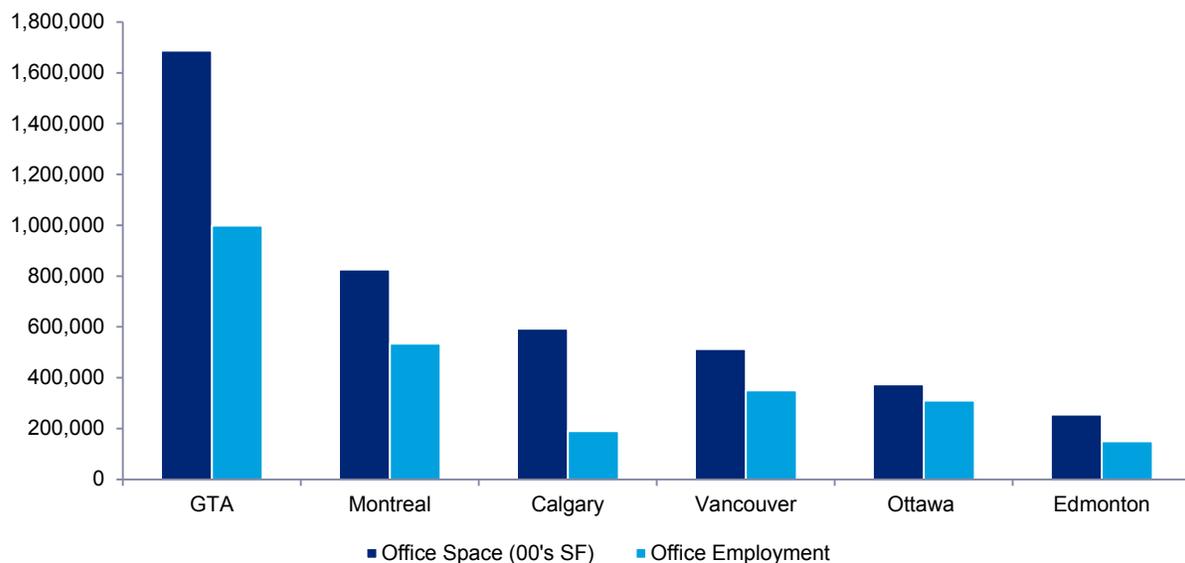
- Direct and indirect economic impacts of Ottawa’s commercial real estate industry are identified for 2011, representing average economic impacts on an annual basis, utilizing:
 - base 2011 market data from industry footprint sections for Ottawa’s office, retail and industrial markets;
 - additional cost data and assumptions based on market research and BOMA member consultation, for economic impact model development; and
 - Deloitte’s industry level economic input-output models and Statistics Canada input-output multipliers, in order to identify the industry’s direct and indirect total impacts of spending, employment, income and taxes (as applicable).

Office market: Industry footprint

Introduction

Ottawa's office market is among the largest in Canada, with approximately 37 million square feet. As shown in the chart below, Ottawa is also one of Canada's larger office sectors with respect to employment, accommodating an estimated 300,000 office sector employees⁹.

Canadian major markets – office sector employment and office market total inventory (00's of square feet)



Source: Cushman & Wakefield, Conference Board of Canada, 2012

Since 2005, the National Capital Region's office sector employment has experienced positive growth, and office sector employment currently comprises approximately 45% of the Ottawa-Gatineau's total employment, which is significantly higher than Ontario's share of 28%, or the national share of 26%. This is largely due to the significant presence of the federal government, which, with over 110,000 employees in the National Capital Region, and 143,000 including Ottawa-Gatineau, is Ottawa's largest employer.

⁹ Conference Board of Canada, Metropolitan Outlook, 2012.

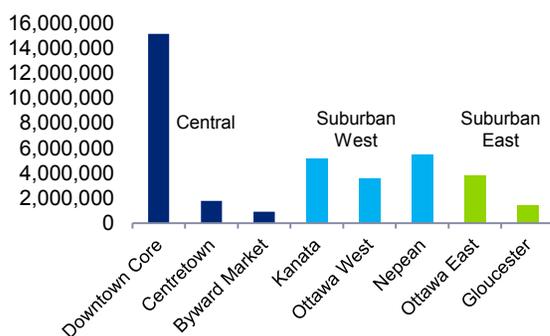
In addition, Ottawa is home to a significant technology centre, with an estimated 1,800 companies involved in such growing sectors as telecommunications, photonics, microelectronics, software and life sciences and employing approximately 80,000 people¹⁰.

Major Ottawa office sector employers ¹¹	Employees
Federal Government	100,000+
City of Ottawa	15,000+
Bell Canada	2,000+
Provincial Government	1,000+
Calian Technologies	1,000+
Alcatel-Lucent	1,000+
Cognos/IBM	1,000+
EDS Canada	1,000+
CGI	1,000+

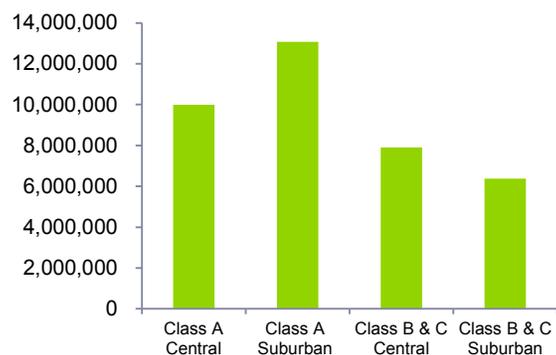
Market supply

Ottawa's central market holds nearly 18 million square feet of office space (48% of Ottawa's total office supply), while approximately 14 million square feet is located in the suburban west (38% of Ottawa's total office supply), and the remaining 5 million square feet located in the suburban east (14%). Ottawa's Class A office space is fairly evenly distributed among in its suburban markets (57%), and central markets (43%).

Ottawa office supply by submarkets (square feet)



Ottawa office supply by Class (square feet)



Source: Cushman & Wakefield 2012

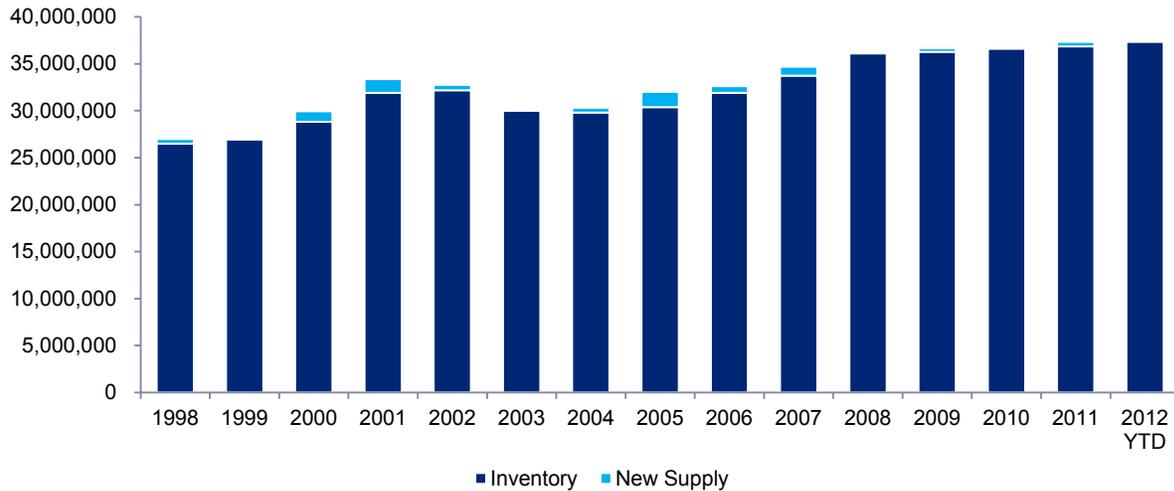
Modest market supply growth

At the second quarter of 2012, the City of Ottawa's office market held approximately 37.4 million square feet. This supply has grown gradually, with the addition of over 7.8 million square feet of office space since 1998. In recent years, Ottawa's office supply has experienced continued modest growth, adding 475,000 square feet in 2011 (representing growth of 1.8% from 2010), with no new supply added year to date at the second quarter of 2012.

¹⁰ CMHC, "Employment – Ottawa". 2012.

¹¹ City of Ottawa, Major Employers in City of Ottawa, 2006

Ottawa office market total inventory (square feet)

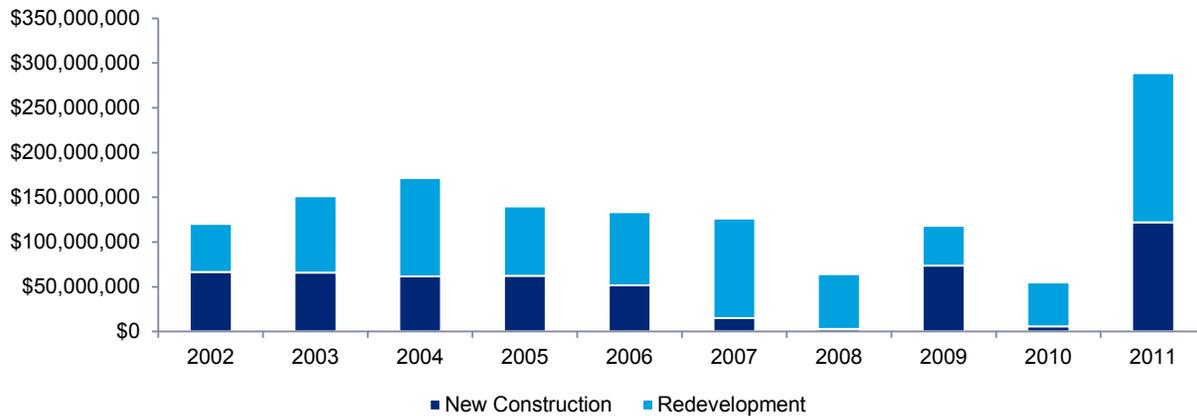


Source: Cushman & Wakefield 2012

Strong building permit activity signals future supply expansion

Ottawa's office building permits have totaled approximately \$1.4 billion in value from 2002 to 2012. Annually, Ottawa's office building permit activity spiked to over \$300 million in 2011, increasing by nearly six fold in value from 2010 levels, indicating substantial new office development will soon be brought to the market.

Office building permits 2002 – 2011 (construction value, \$)

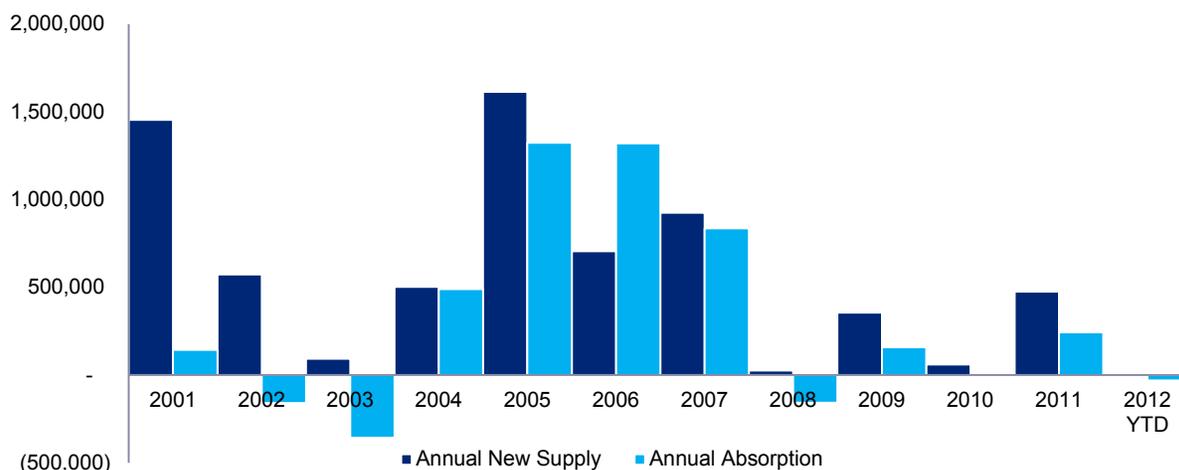


Source: City of Ottawa, 2012

New supply and absorption recovering since 2011

In more recent years, the absorption of office space in Ottawa has generally followed the trends of new supply. Absorption has remained low relative to previous levels since 2008, with negative absorption of 30,500 square feet over 2012 year to date at Q2.

Ottawa office market new supply and absorption (square feet)

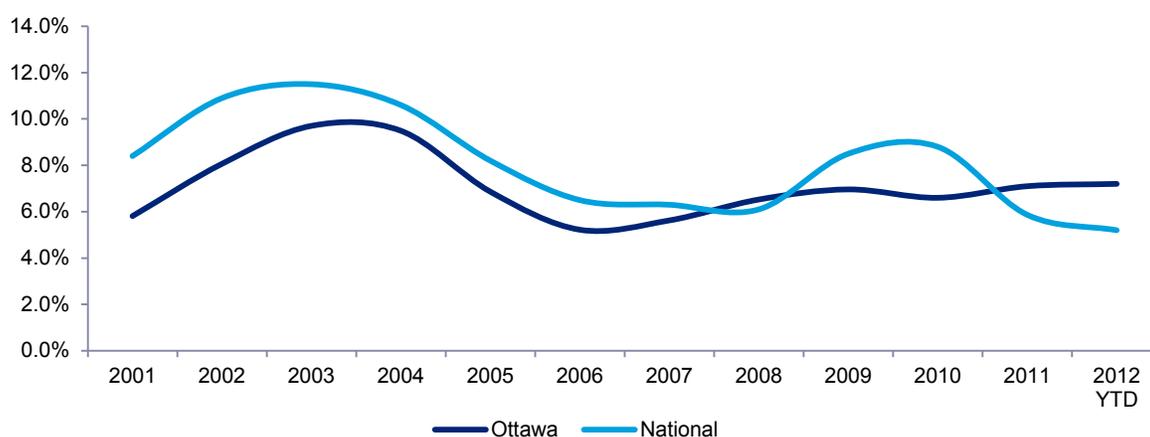


Source: Cushman & Wakefield, 2012

Vacancy remains stable

There continues to be little movement in Ottawa's overall vacancy rate after increasing from 2006 levels, with current vacancy declining to 7.2% in Q2 2012. After historically generally trending lower relative to national average vacancy, in 2011 Ottawa's vacancy increased above the national average, which currently sits at 5.2%.

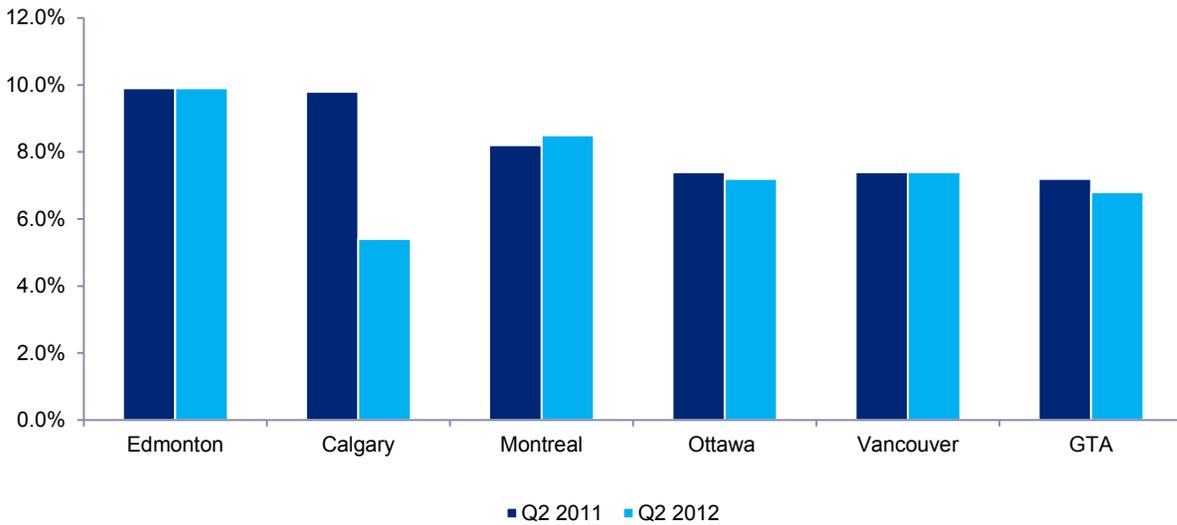
Ottawa and national office market vacancy (%)



Source: Cushman & Wakefield, 2012

Ottawa's Q2 2012 vacancy rate of 7.2% is comparable to other major Canadian markets, which ranged from 5.4% in Calgary, to 9.9% in Edmonton. Most of these markets, including Ottawa experienced a slight decrease from Q2 2011 to Q2 2012.

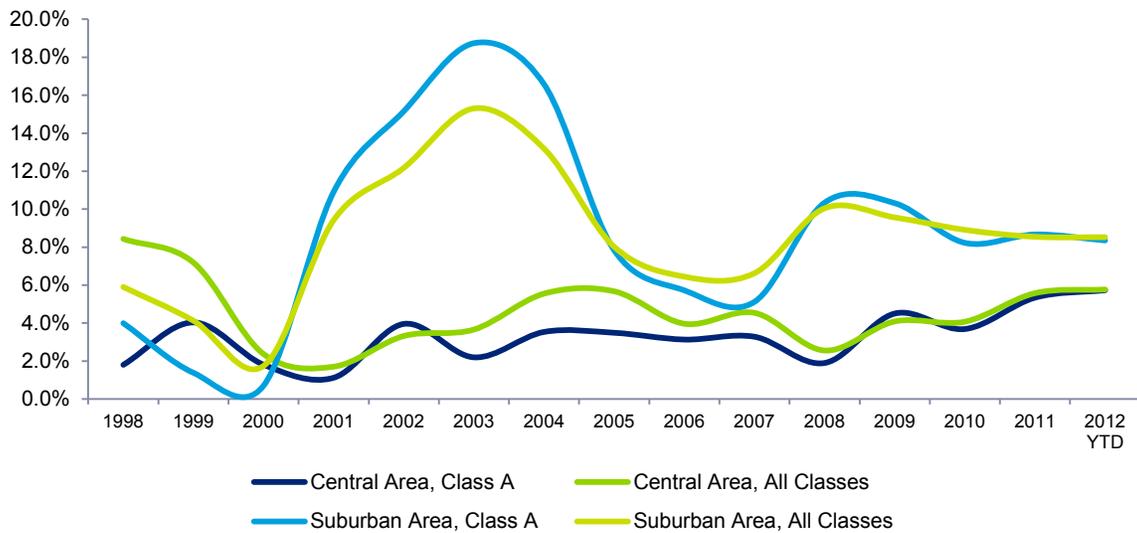
Canadian major markets – office market vacancy (%)



Source: Cushman & Wakefield, 2012

Currently, at less than 6%, vacancy remains the lowest for all classes of space in Ottawa’s central area. Comparatively, vacancy for suburban space has historically fluctuated, rising significantly in 2002-2003, likely as a result of the slowdown of the City’s tech sector over this period. Vacancy in Ottawa’s suburban areas currently ranges above 8%.

Ottawa office market vacancy by class and area (%)

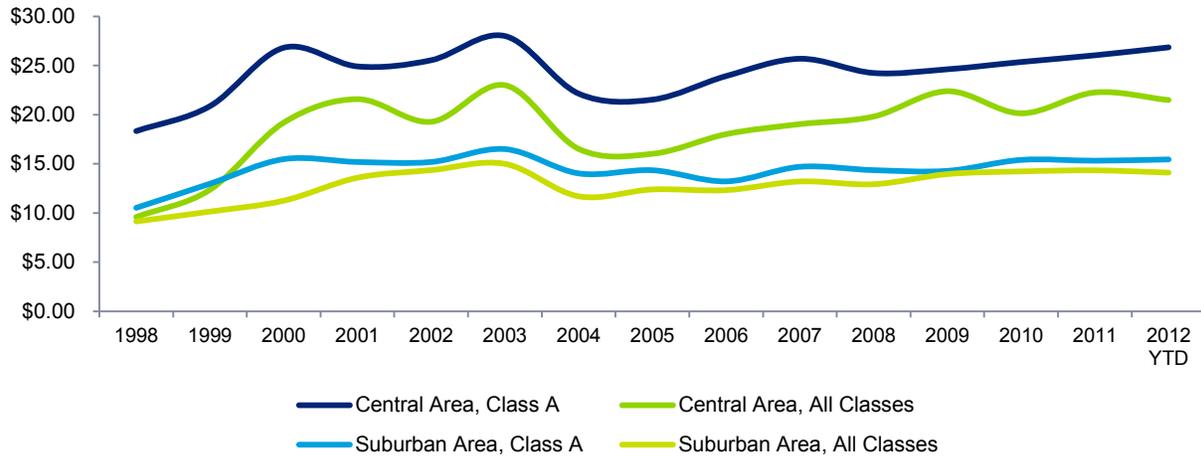


Source: Cushman & Wakefield, 2012

Asking net rental rates are stabilizing and trending upward

Ottawa's office net rental rates have been trending upwards since 1998; over the past decade there has been an approximate 21% growth in net rental rates. Overall, asking net rental rates remain stable, sitting at \$18-\$19 per square foot for all classes. Net rental rates range from approximately \$14 per square foot in suburban areas, to approximately \$27 per square foot for Class A space located in central Ottawa.

Ottawa office market net rental rates (per square foot)

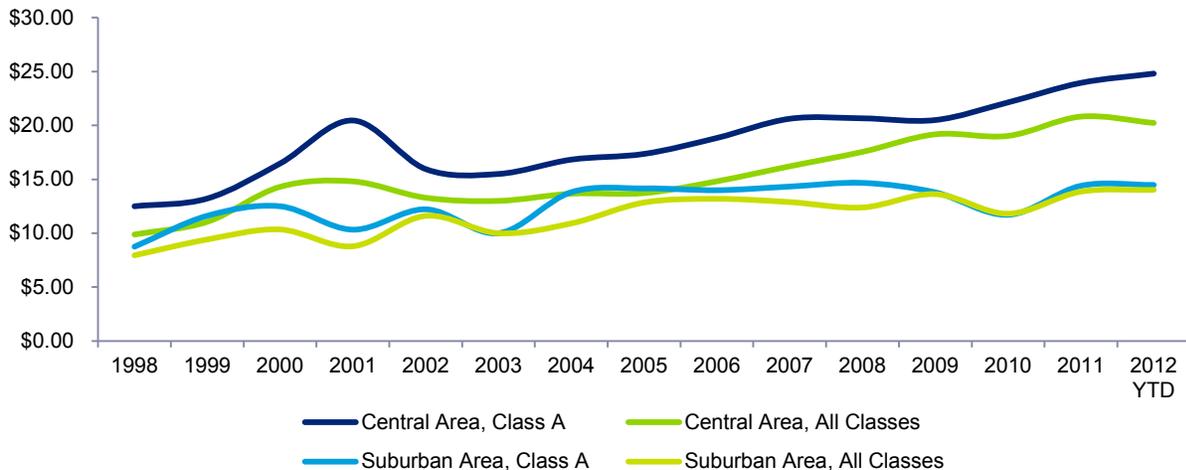


Source: Cushman & Wakefield 2012

Taxes and operating cost trend outpaces CPI growth

Ottawa's office market currently has average taxes and operating costs of approximately \$17 per square foot overall, 11% higher than the national average of approximately \$15 per square foot. Suburban area office space has exhibited the most volatility historically, at approximately \$14 per square foot. Office space in Ottawa's central area has approximate taxes and operating costs of \$20 per square foot, which is 14% higher than the national average of approximately \$18 per square foot.

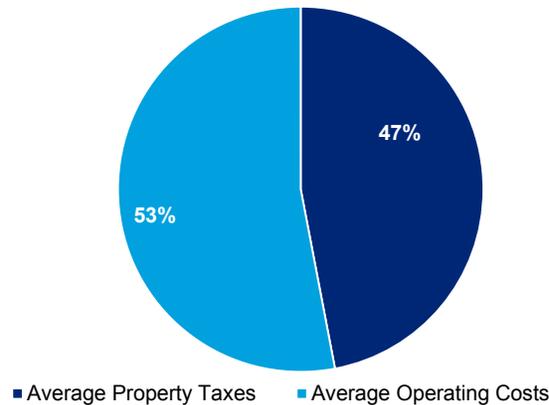
Ottawa office property taxes and operating costs (psf)



Source: Cushman & Wakefield, 2012

On average, the allocation of Ottawa's office property taxes and operating costs is approximately 47% for property taxes and 53% for average operating costs.

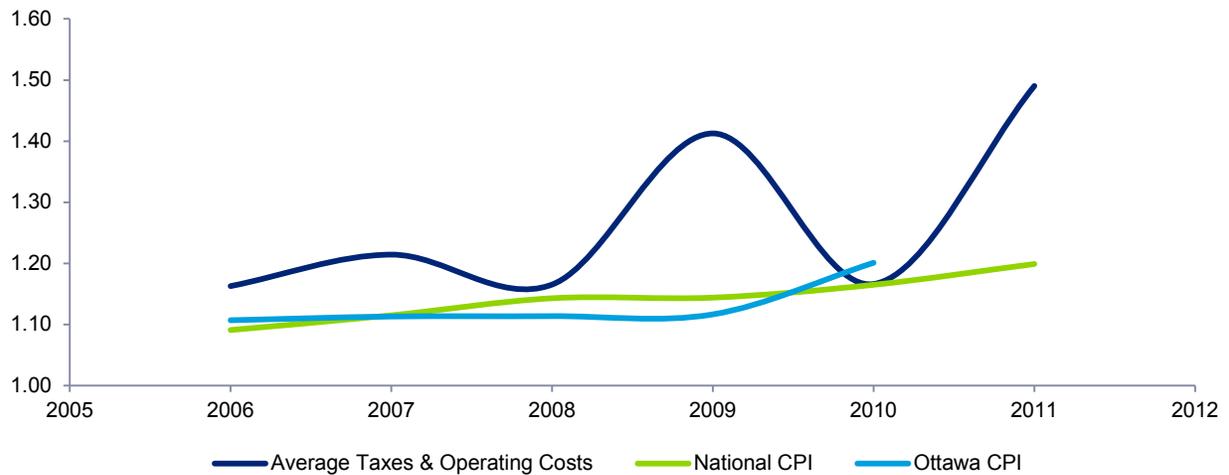
Ottawa office taxes and operating costs (psf) – average 2011 allocation



Source: Cushman & Wakefield, 2012

Ottawa's office taxes and operating costs per square foot have fluctuated significantly over the past decade, often outpacing the growth of the national and Ottawa level consumer price index.

Ottawa office taxes and operating costs (psf) growth, national CPI and Ottawa CPI

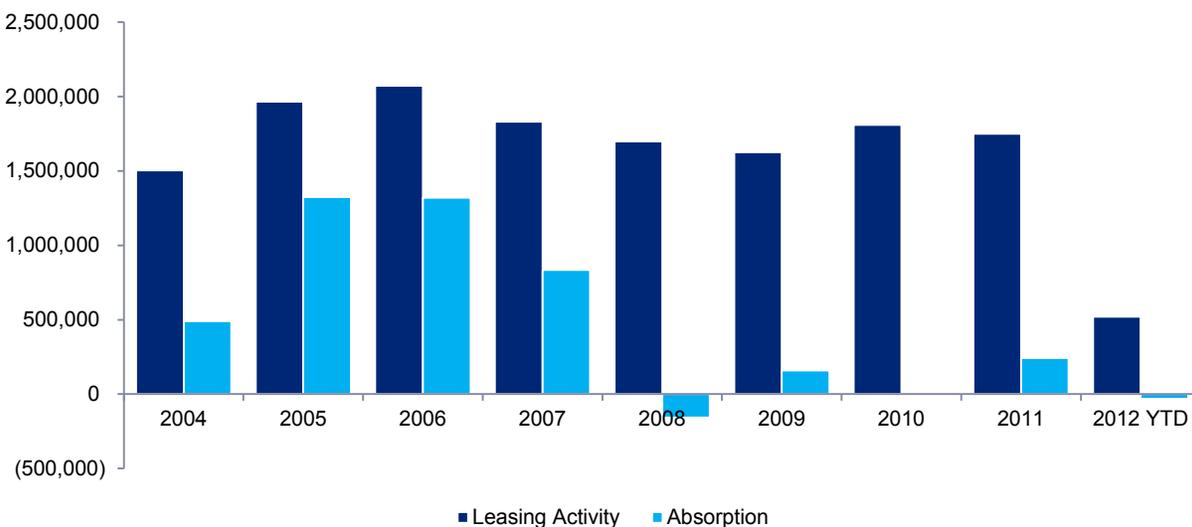


Source: Cushman & Wakefield, Conference Board of Canada, Statistics Canada, 2012
 Notes: Average taxes and operating costs are indexed and chained to 2002, as with CPI

Steady leasing activity

Office leasing activity has recently slowed in Ottawa, sliding down to 147,000 square feet at Q2 2012 which is largely reflective of the decreasing demand for space from government tenants. Over this period, activity was the most robust in Kanata in terms of square footage leased, at close to 61,000 square feet; with the largest transaction being close to 14,000 square feet in the Class A segment.

Ottawa office leasing activity and absorption (square feet)

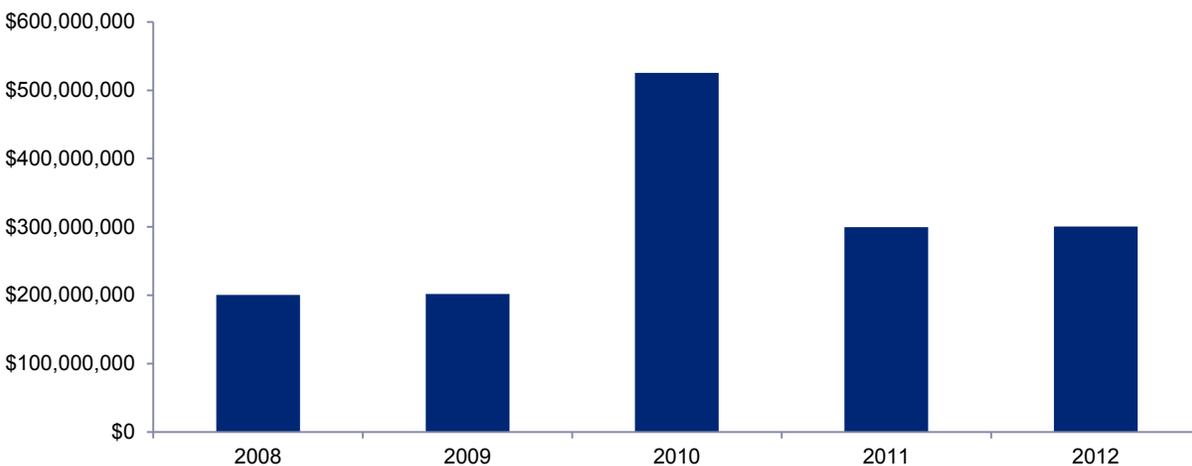


Source: Cushman & Wakefield 2012

Transaction activity

With respect to office sales transactions, Ottawa's office markets continue to remain attractive to investors. At Q2 2012 year to date, office investment totalled \$300.6 million and is largely dependent on the availability of office buildings for sale to the investment community. As shown in the chart of transactions below, many of Canada's largest real estate investors have purchased office buildings in Ottawa, reinforcing the demand for the Ottawa office investment market.

Ottawa office sales transaction volume



Source: Cushman & Wakefield 2012

Office property economic impacts

Summary of office economic impacts

The City of Ottawa's significant office sector real estate results in extensive direct and indirect economic impacts, as summarized in the table below.

The development, construction, fit-out, operations and transactions of Ottawa's office properties in 2011 generated an estimated \$1.6 billion in total economic output impacts from spending, approximately total full-time employment of 9,500, and total income impacts of \$470 million.

	Economic output (millions)	Employment	Income (millions)
Direct impact	\$1,165.4	5,510	\$321.1
Indirect impact	\$385.5	4,010	\$149.1
Total impact	\$1,550.9	9,520	\$470.2

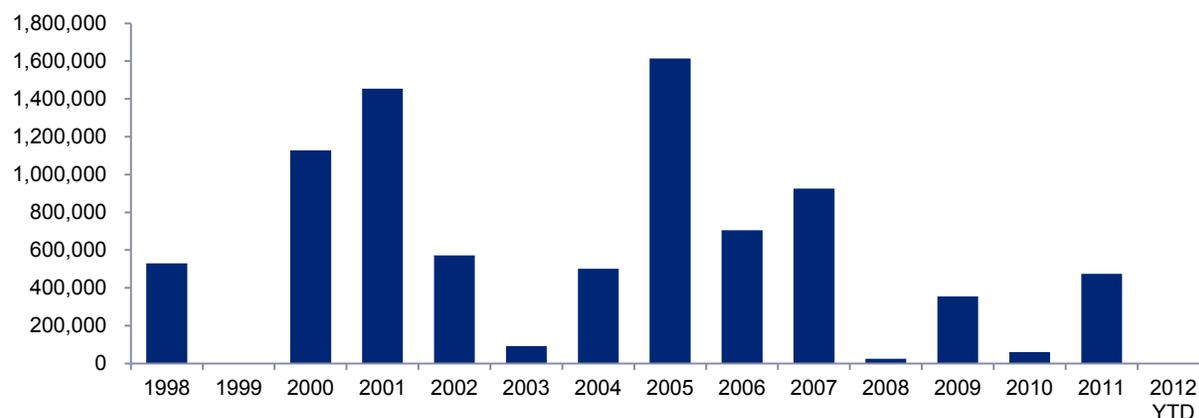
The following section outlines the estimated economic impacts of such spending, employment, and income in more detail, within Ottawa's office market, in 2011.

Economic output impacts

Development and construction economic output impacts

In 2011, Ottawa added approximately 475,000 square feet of new retail supply to the market. The development of Ottawa's office properties support a significant degree of spending activity across Ottawa and, more broadly Ontario, including development, construction and fit-out expenditure (i.e., materials, construction and consulting oriented labour, furniture, leaseholds, etc.).

Ottawa new office inventory (square feet)



Source: Cushman & Wakefield 2012

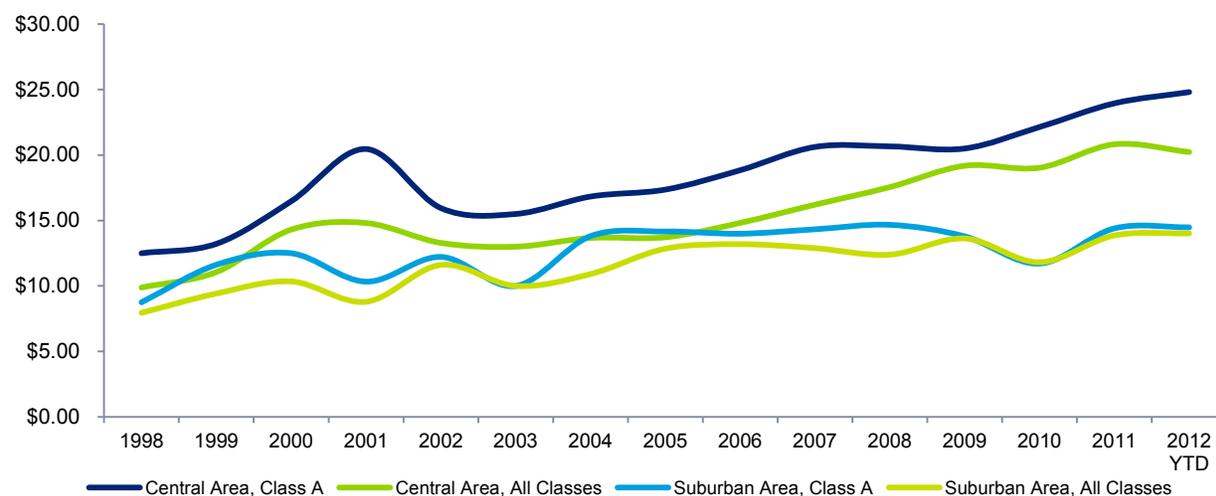
Given 475,000 square feet of new Class A office supply constructed and fit out in the City of Ottawa in 2011, an estimated \$227.0 million in direct expenditure was incurred related to construction, with a total economic output impact of \$330.6 million.

2011 Ottawa office property development and construction economic output impacts (millions)	
Direct impact	\$227.0
Indirect impact	\$103.6
Total economic output impact	\$330.6

Operation economic output impacts

The operations of Ottawa's office properties support a significant degree of spending activity across Ottawa and, more broadly Ontario, including property operating expenditure, including utilities, maintenance and repair, administration, property management and consultant oriented labour, etc.

Ottawa office property taxes and operating costs (psf)



Source: Cushman & Wakefield, 2012

Given the supply of approximately 37 million square feet of office space in the City of Ottawa in 2011, average operating costs per square foot by class and estimated expenditure pertaining to property management, maintenance, leasing, administration, and additional support functions, the direct and corresponding indirect economic impacts of Ottawa's office property operations were assessed.

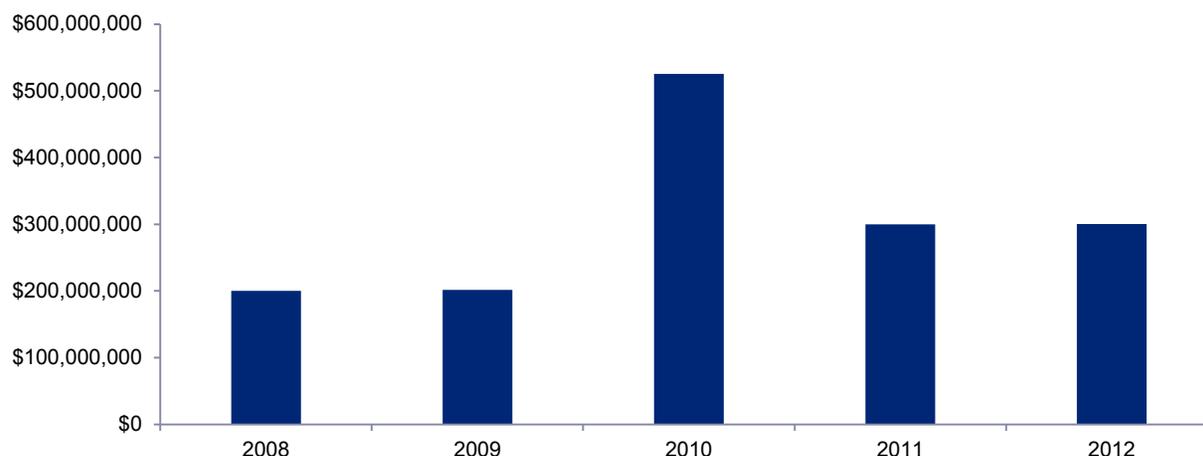
An estimated \$604.0 million in direct expenditure was incurred related to operations, with a total operational economic output impact of \$836.1 million.

2011 Ottawa office property operation economic output impacts (millions)	
Direct impact	\$604.0
Indirect impact	\$232.2
Total economic output impact	\$836.1

Transaction economic output impacts

In 2011, there was approximately \$300 million in office property transactions in Ottawa. The disposition of Ottawa's office properties support a significant degree of spending activity across Ottawa and, more broadly Ontario, including office property transaction sales, consultant oriented labour, etc.

Ottawa office sales transaction volume



Source: Cushman & Wakefield 2012

Given an approximate \$300 million in office property transactions in 2011 in Ottawa, an estimated fees related to brokerage, valuation, legal and other services, an estimated \$334.4 million in direct expenditure was incurred related to transactions, with a total economic output impact of \$384.2 million.

2011 Ottawa office property transaction economic output impacts (millions)	
Direct impact	\$334.4
Indirect impact	\$49.8
Total economic output impact	\$384.2

Summary of economic output impacts

In summary, the development, construction, fit-out, operations and transactions of Ottawa's office properties in 2011 generated an estimated \$1.6 billion in total economic output impacts.

2011 Ottawa office property economic output impacts (millions)	
Direct impact	\$1,165.4
Indirect impact	\$385.5
Total economic output impact	\$1,550.9

Employment impacts

Development and construction employment impacts

The development of Ottawa's office properties support a significant number of employees within Ottawa, including:

- Development, construction and fit-out workers; and
- Consultants during development, construction and fit-out, including architects, engineers, planners, municipal government, etc.

During the construction of new office properties in 2011, it is estimated that 1,710 direct full-time employees were utilized, with an additional 590 full-time employees engaged through supplier based activity. Thus, Ottawa's office property construction employed an estimated total of 2,300 full-time employees in 2011.

2011 Ottawa office property construction employment impacts	
Direct employment	1,710
Indirect employment	590
Total employment impact	2,300

Operation employment impacts

The operations of Ottawa's office properties support a significant number of employees within Ottawa, including:

- Property management, operations, facility and maintenance staff; and
- Consultants during operations including leasing agents/brokers, space planners, etc.

Through the operations of Ottawa's office properties in 2011, it is estimated that 3,470 direct full-time employees were utilized, with an additional 3,150 full-time employees engaged through supplier based activity. Thus, Ottawa's office property operations employed an estimated total of 6,620 full-time employees in 2011.

2011 Ottawa office property operation employment impacts	
Direct employment	3,470
Indirect employment	3,150
Total employment impact	6,620

Transaction employment impacts

The disposition of Ottawa's office properties support a significant number of employees within Ottawa, including staff and various consultants employed during the transaction process.

Through Ottawa's office property transactions in 2011, it is estimated that 330 direct full-time employees were utilized, with an additional 270 full-time employees engaged through indirect impacts. Thus, Ottawa's office property transactions employed an estimated total of 600 full-time employees in 2011.

2011 Ottawa office property transaction employment impacts	
Direct employment	330
Indirect employment	270
Total employment impact	600

Summary of employment impacts

In summary, the development, construction, fit-out, operations and transactions of Ottawa's office properties in 2011 generated over 9,500 full-time employees.

2011 Ottawa Office property employment impacts	
Direct employment	5,510
Indirect employment	4,010
Total employment impact	9,520

Employee income impacts

Development and construction income impacts

The development of Ottawa's office properties support a significant income base, including:

- The income of development, construction and fit-out workers; and
- The income received by consultants during development, construction and fit-out, including architects, engineers, furniture and technology providers, etc.

During the construction of new office properties in 2011, it is estimated that \$90.8 million in income for direct full-time employees was generated, with an additional \$43.8 million for full-time employees engaged through supplier based activity. Thus, Ottawa's office property construction generated an estimated total income of \$134.6 million in 2011.

2011 Ottawa office property construction income impacts (millions)	
Direct income	\$90.8
Indirect impact	\$43.8
Total impact	\$134.6

Operation income impacts

The operations of Ottawa's office properties support a significant income base, including the income of property management, operations, and maintenance staff.

Through the operations of Ottawa's office properties in 2011, it is estimated that \$205.6 million in income for direct full-time employees was generated, with an additional \$96.6 million for full-time employees engaged through supplier based activity. Thus, Ottawa's office properties generated an estimated total income of \$302.2 million in 2011.

2011 Ottawa office property operation income impacts (millions)	
Direct income	\$205.6
Indirect impact	\$96.6
Total impact	\$302.2

Transaction income impacts

The disposition of Ottawa's office properties support a significant income base, including the income received by consultants during the disposition process, including lawyers, appraisers, brokers, etc.

Through Ottawa's office property transactions in 2011, it is estimated that \$24.7 million in income for direct full-time employees was generated, with an additional \$8.7 million for full-time employees engaged through supplier based activity. Thus, these transactions generated an estimated total income of \$33.4 million in 2011.

2011 Ottawa office property transaction income impacts (millions)	
Direct income	\$24.7
Indirect impact	\$8.7
Total impact	\$33.4

Summary of employment income impacts

In summary, the development, construction, fit-out, operations and transactions of Ottawa's office properties in 2011 generated over \$470 million in employee income.

2011 Ottawa office property employee income impacts (millions)	
Direct economic output	\$321.1
Indirect impact	\$149.1
Total impact	\$470.2

Property level impacts: Case study of Class "A" 400,000 SF office property

In order to demonstrate the above noted economic output at the more microeconomic level, the following section identifies the economic impacts from spending for a sample Class "A", nearly 400,000 square foot office building located in Central Ottawa. This property took approximately 2.5 years to develop, and as such development and construction related impacts are assessed for this period.

Development and construction economic output impacts

Given total hard and soft development/construction costs of \$96.2 million, the total economic output impact of this property is estimated at \$139.7 million.

Case study: Office property development & construction economic output impacts (millions)	
Direct impact	\$96.2
Indirect impact	\$43.5
Total economic output impact	\$139.7

Operation economic output impacts

Given the property's operating costs and expenditure pertaining to property management, maintenance, leasing, administration, and additional support functions, the direct and corresponding indirect economic impacts of this property's operations were assessed. An estimated \$3.8 million in direct expenditure was incurred related to operations, with a total operational economic output impact of \$5.4 million.

Case study: Office property operation economic output impacts (millions)	
Direct impact	\$3.8
Indirect impact	\$1.6
Total economic output impact	\$5.4

Development charge and property tax revenue

The development of this property resulted in development charges disbursed to the City of Ottawa. Given Ottawa's office development charges of approximately \$13-\$14 per square foot, development charges of approximately \$5.2 million were incurred.

Additionally, the operations of this property result in significant property taxes to the City. It is estimated that the taxes associated with this property total approximately \$4.5 million annually.

Case study: Office property development charges and property tax revenue (millions)	
Development charges during development/construction	\$5.2
Property taxes during operations (annual)	\$4.5
Total development charges and property taxes	\$9.7

Summary

In conclusion, the City's commercial real estate can be expected to generate significant economic impacts even at the individual property level, as observed through the case study of a new office building recently built in the City of Ottawa. The construction and annual operations of this property generated an estimated economic output of \$145.1 million, and municipal revenue of \$9.7 million.

	Economic output (millions)	Municipal revenue (millions)
Total impact	\$145.1	\$9.7

Retail market: Industry footprint

Introduction

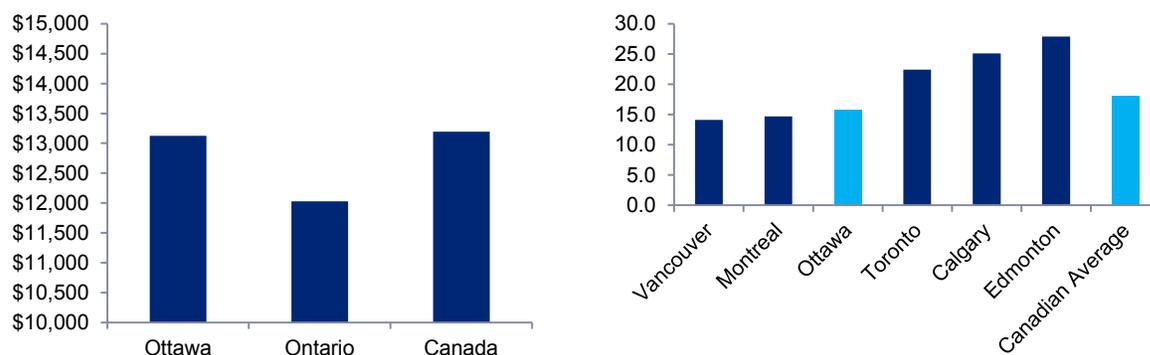
Ottawa is historically among Canada's top ten municipalities with respect to total population, and population growth. Such growth supports the potential for Ottawa's retail sales activity and thus, its ability to attract interest from both developers and retailers and ultimately drive development and expansion opportunities.

The City of Ottawa currently supports a significant retail sector, holding approximately 20 million square feet of retail space, which accommodates an estimated 100,000 employees within Ottawa's retail based sectors¹².

Major Ottawa retail sector employers ¹³	Employees
Loblaws	2,000+
Loeb Canada Inc.	1,000+
Tim Hortons	1,000+
Walmart	1,000+
McDonald's Restaurants	1,000+
Canadian Tire Stores	1,000+
Shoppers Drugmart	500+

Retail sales per capita is approximately \$13,100, approximately 9% higher than Ontario's average of \$12,000 per capita, and slightly lower than Canada's average of \$13,200 per capita. Interestingly, Ottawa realizes such levels of retail sales per capita with less retail space per capita (16 square feet) than the Canadian average (18 square feet).

Ottawa, Ontario and Canada Retail Sales Per Capita **Canadian Retail Square Feet Per Capita**



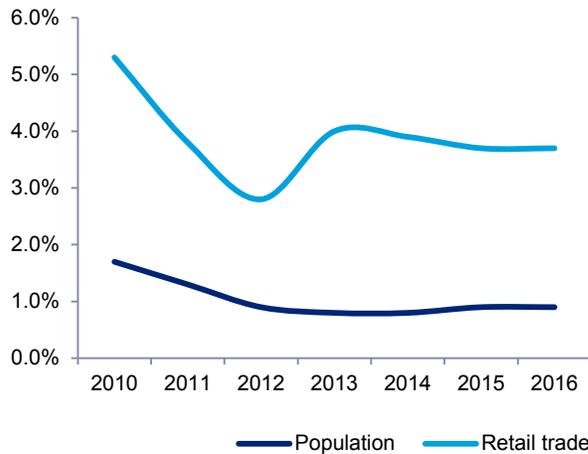
Source: Conference Board of Canada, Cushman Wakefield, 2012

¹² Conference Board of Canada, Metropolitan Outlook, 2012.

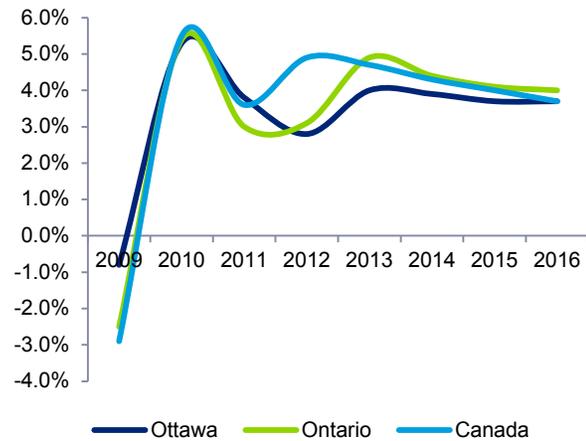
¹³ City of Ottawa, Major Employers in City of Ottawa, 2006

Retail sales in Ottawa have fluctuated, decreasing in 2009 as a result of the recession, and subsequently recovering in recent years. The growth of retail sales is expected to level out in the short-term, in line with the projected retail sales growth of Ontario and Canada, on average.

Ottawa – Population and Retail Sales Growth (%)



Ottawa, Ontario and Canada Retail Sales Growth (%)



Source: Conference Board of Canada, 2012

Steady market supply growth

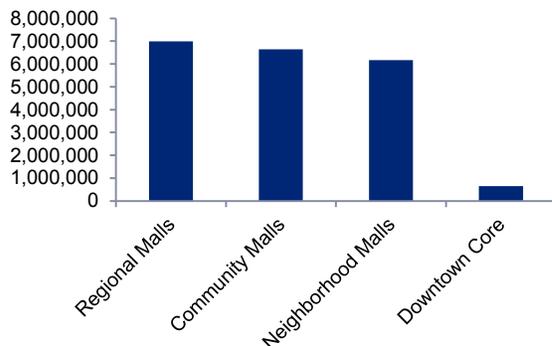
The Ottawa retail market held approximately 20.5 million square feet at the end of 2011, including:

- regional malls comprising 7 million square feet;
- community malls comprising 6.6 million square feet;
- neighbourhood malls comprising 6.2 million square feet; and
- downtown core comprising 650,000 square feet.

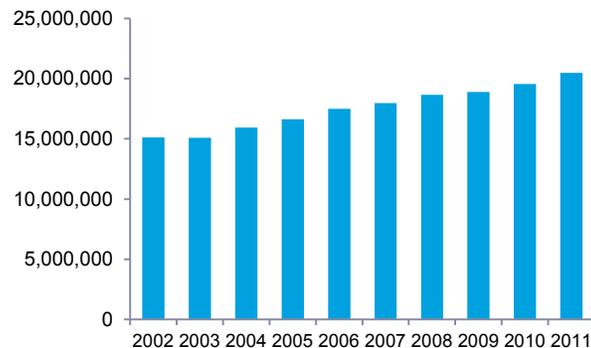
Ottawa has seen the addition of over 5.3 million square feet of retail space from 2002 and 2011, or over 500,000 square feet per year on average.

Ottawa retail market inventory (square feet)

By type of retail space



Growth of retail space

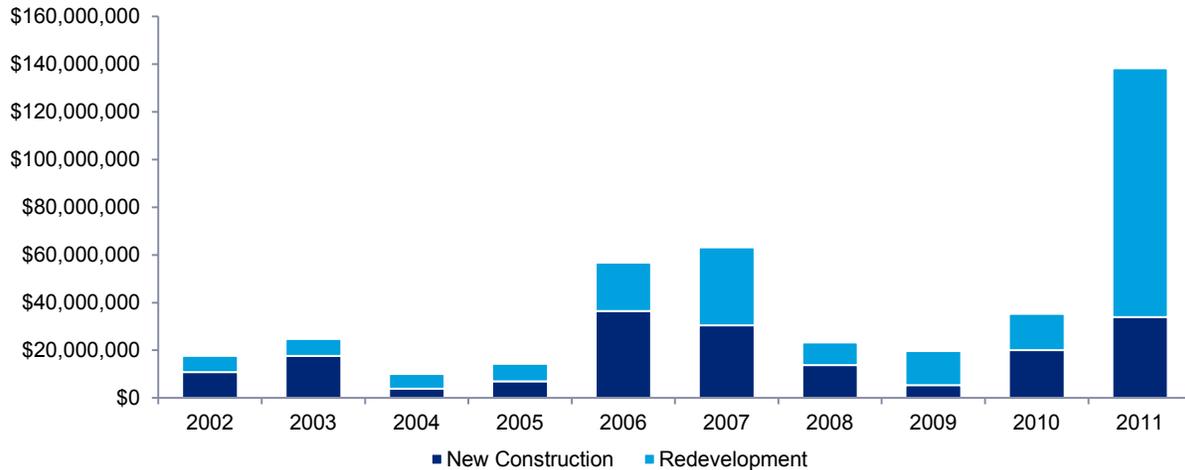


Source: Cushman & Wakefield, 2012

Strong building permit activity signals future supply expansion

Ottawa's retail building permits have totaled approximately \$406 million in value from 2002 to 2012. After modest activity from 2008 to 2010, Ottawa's retail building permit activity spiked in 2011, increasing by nearly four fold and rising to nearly \$140 million. This reflects significant new projects and tremendous new supply being added to the Ottawa marketplace.

Retail building permits 2002 – 2011 (construction value, \$)

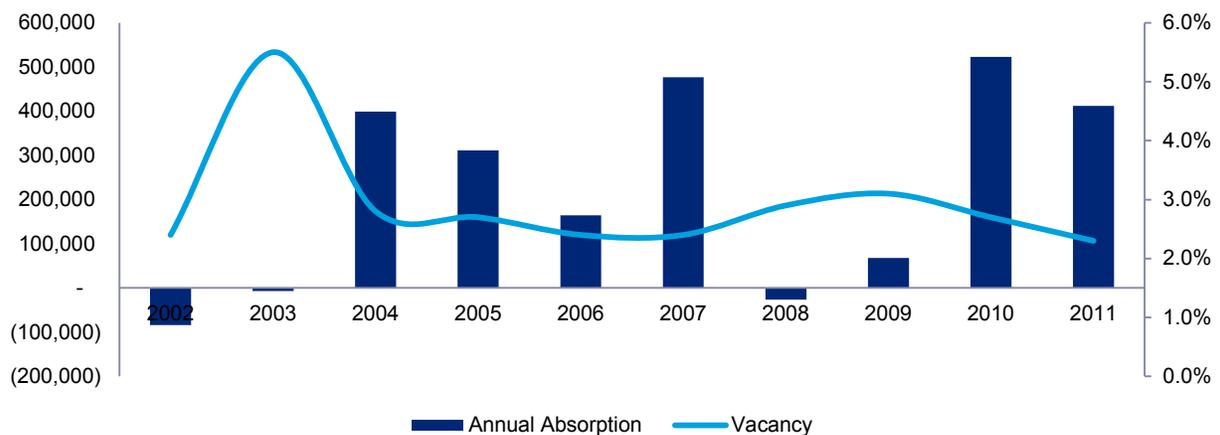


Source: City of Ottawa, 2012

Low vacancy and strong demand for retail space

In recent years the Ottawa retail market has experienced low vacancy rates in the 2-4% range with some 500,000 square feet in 2010 and 400,000 in 2011.

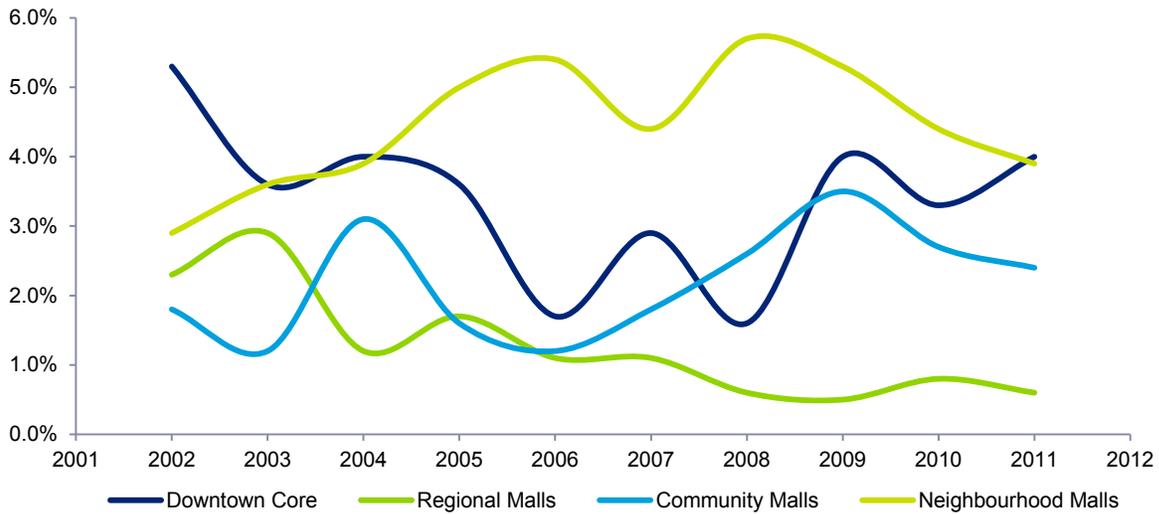
Ottawa retail market absorption (square feet) and vacancy (%)



Source: Cushman & Wakefield, 2012

Retail vacancy has trended downward to less than 1% for Ottawa's regional malls, with neighbourhood malls and the downtown core currently holding the highest vacancy among Ottawa's retail, at approximately 4%.

Ottawa retail market vacancy (%)

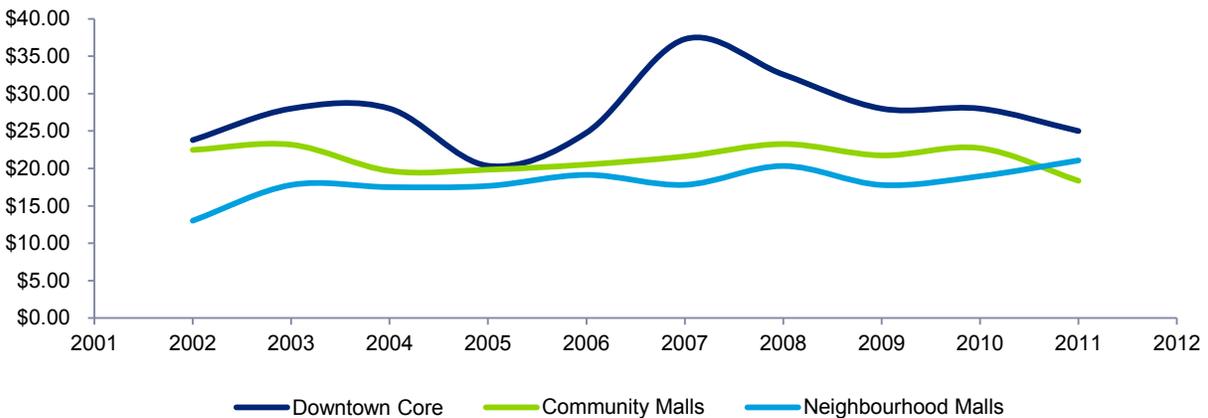


Source: Cushman & Wakefield, 2012

Net rental rates remain steady

Net rental rates for retail space in Ottawa have fluctuated from 2002 to 2012. The downtown core holds the highest net rent of approximately \$25 per square foot, while community malls net rental rates have decreased slightly, to approximately \$18 per square foot.

Ottawa retail market net rental rates (per square foot)

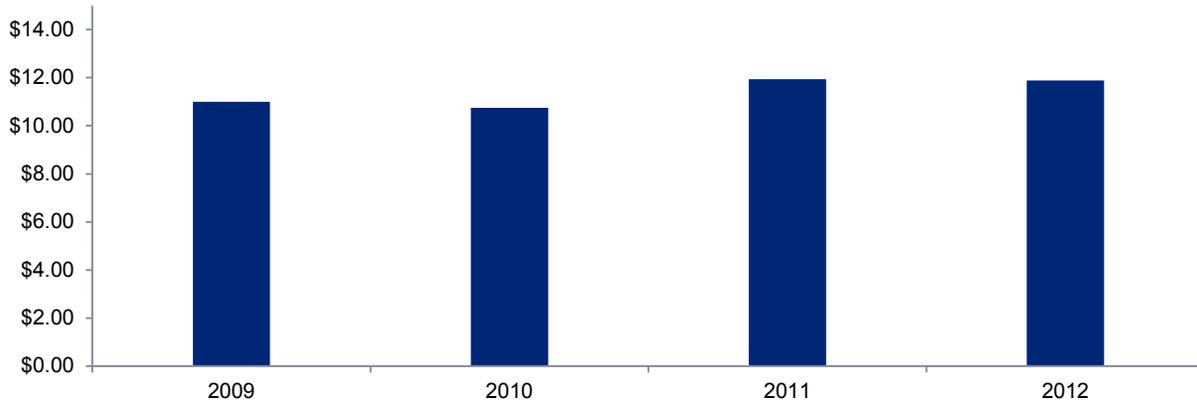


Source: Cushman & Wakefield 2012

Moderate growth of taxes and operating costs

Retail taxes and operating costs in Ottawa currently sit at approximately \$12 per square foot, a slight decrease from 2011 levels and up from 2009 and 2010.

Ottawa retail market average T&O (per square foot)

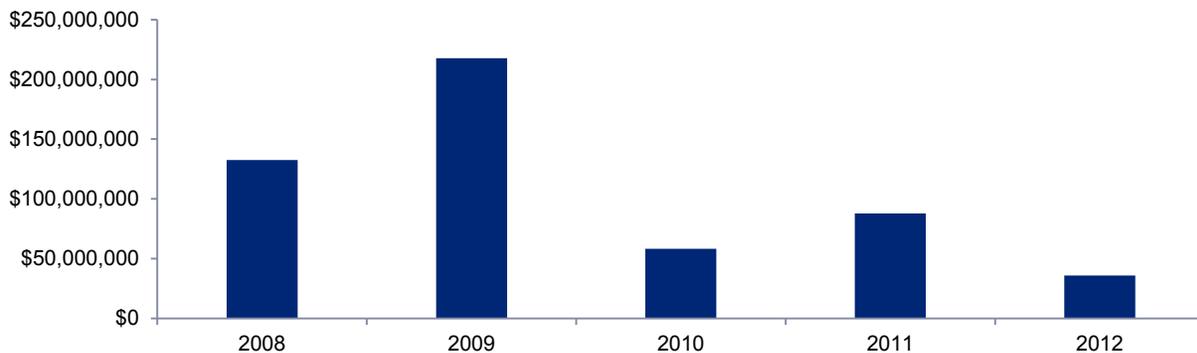


Source: Cushman & Wakefield 2012

Decreasing transaction activity

With respect to retail sales transactions, on an annual basis volumes have decreased significantly after 2009, which is likely a reflection of the more limited available product for sale. At Q2 2012 year to date, retail investment totalled \$36 million, with 2011 investment totalling \$88 million.

Ottawa retail sales transactions



Source: Cushman & Wakefield 2012

Retail property economic impacts

Summary of retail economic impacts

The City of Ottawa's growing retail real estate market generates extensive direct and indirect economic impacts to the City, as summarized in the table below.

The development, construction, fit-out, operations and transactions of Ottawa's retail properties in 2011 generated an estimated \$664.2 million in total economic output impacts, approximately total full-time employment of 4,900, and total income impacts of \$245 million.

	Economic output (millions)	Employment	Income (millions)
Direct impact	\$489.3	2,900	\$166.7
Indirect impact	\$174.8	2,040	\$78.3
Total impact	\$664.2	4,900	\$245.0

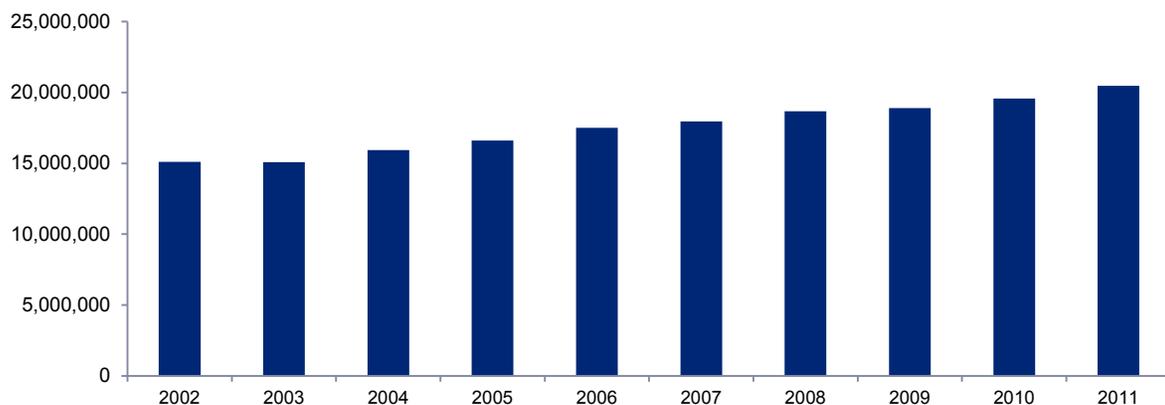
The following section outlines the estimated economic impacts of such spending, employment, and income in more detail, within Ottawa's retail market, in 2011.

Economic output impacts

Development and construction economic output impacts

In 2011, Ottawa added approximately 444,000 square feet of new retail supply to the market. The development of Ottawa's retail properties support a significant degree of spending activity across Ottawa, including development, construction and fit-out expenditure, including materials, construction and consulting oriented labour, furniture, leaseholds, etc.

Ottawa retail market inventory growth (square feet)



Source: Cushman & Wakefield, 2012

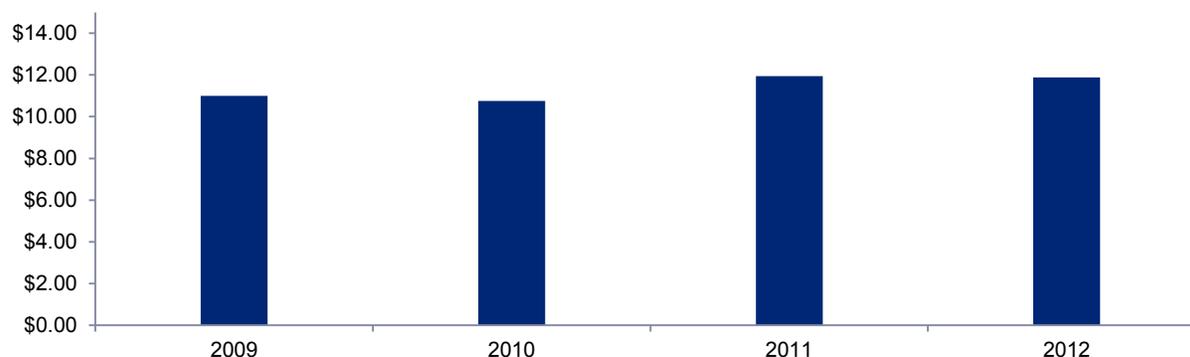
Given 444,000 square feet of new retail supply completed in the City of Ottawa in 2011, an estimated \$141.6 million in direct expenditure was incurred related to construction, with a total economic output impact of \$206.1 million.

2011 Ottawa retail property construction economic output impacts (millions)	
Direct impact	\$141.6
Indirect impact	\$64.5
Total economic output impact	\$206.1

Operation economic output impacts

Retail taxes and operating costs in Ottawa currently sit at approximately \$12 per square foot. The operations of Ottawa's retail properties support a significant degree of spending activity across Ottawa, including property operating expenditure, including utilities, maintenance and repair, administration, property management and consultant oriented labour, etc.

Ottawa retail market average T&O (per square foot)



Source: Cushman & Wakefield 2012

Given the supply of approximately 20 million square feet of retail space in the City of Ottawa in 2011, average operating costs per square foot by type and estimated expenditure pertaining to property management, maintenance, leasing, administration, and additional support functions, the direct and corresponding indirect economic impacts of Ottawa's retail property operations were assessed.

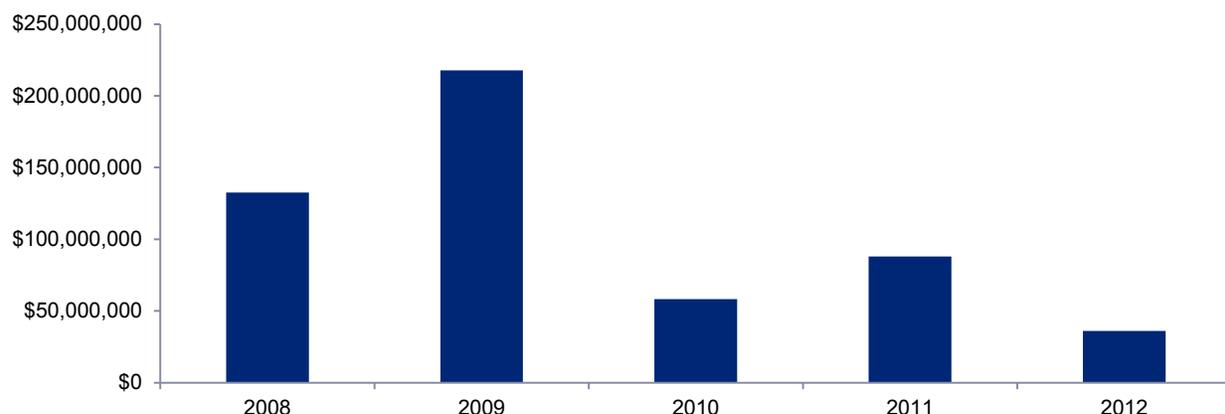
An estimated \$249.6 million in direct expenditure was incurred related to operations, with a total operational economic output impact of \$345.4 million.

2011 Ottawa retail property operation economic output impacts (millions)	
Direct impact	\$249.6
Indirect impact	\$95.8
Total economic output impact	\$345.4

Transaction economic output impacts

In 2011, there was approximately \$88 million in retail property transactions in Ottawa. The disposition of Ottawa's retail properties support a significant degree of spending activity across Ottawa, including retail property transaction sales, consultant oriented labour, etc.

Ottawa retail sales transactions



Source: Cushman & Wakefield 2012

Given an approximate \$88 million in retail property transactions in 2011 in Ottawa, an estimated fees related to brokerage, valuation, legal and other services, an estimated \$98.1 million in direct expenditure was incurred related to transactions, with a total economic output impact of \$112.7 million.

2011 Ottawa retail property transaction economic output impacts (millions)

Direct impact	\$98.1
Indirect impact	\$14.1
Total economic output impact	\$112.7

Summary of economic output impacts

In summary, the development, construction, fit-out, operations and transactions of Ottawa's retail properties in 2011 generated an estimated \$664.2 million in total economic output impacts.

2011 Ottawa retail property economic output impacts (millions)

Direct impact	\$489.3
Indirect impact	\$174.8
Total economic output impact	\$664.2

Employment impacts

Development and construction employment impacts

The development of Ottawa's retail properties support a significant number of employees within Ottawa, including:

- Development, construction and fit-out workers; and
- Consultants during development, construction, and fit-out including architects, engineers, etc.

During the construction of new retail properties in 2011, it is estimated that 1,060 direct full-time employees were utilized, with an additional 390 full-time employees engaged through supplier based activity. Thus, Ottawa's retail property construction employed an estimated total of 1,450 full-time employees in 2011.

2011 Ottawa retail property construction employment impacts	
Direct employment	1,060
Indirect employment	390
Total employment	1,450

Operation employment impacts

The operations of Ottawa's retail properties support a significant number of employees within Ottawa, including property management, operations, maintenance staff, leasing agents, etc.

Through the operations of Ottawa's retail properties in 2011, it is estimated that 1,740 direct full-time employees were utilized, with an additional 1,570 full-time employees engaged through supplier based activity. Thus, Ottawa's retail property operations employed an estimated total of 3,310 full-time employees in 2011.

2011 Ottawa retail property operation employment impacts	
Direct employment	1,740
Indirect employment	1,570
Total employment	3,310

Transaction employment impacts

The disposition of Ottawa's retail properties support a significant number of employees within Ottawa, including consultants during disposition, including lawyers, appraisers, brokers, etc.

Through Ottawa's retail property transactions in 2011, it is estimated that 95 direct full-time employees were utilized, with an additional 80 full-time employees engaged through indirect impacts. Thus, Ottawa's retail property transactions employed an estimated total of 175 full-time employees in 2011.

2011 Ottawa retail property transaction employment impacts	
Direct employment	95
Indirect employment	80
Total employment	175

Summary of employment impacts

In summary, the development, construction, fit-out, operations and transactions of Ottawa's retail properties in 2011 generated approximately 4,900 full-time employees.

2011 Ottawa retail property employment impacts	
Direct employment	2,900
Indirect employment	2,040
Total employment	4,900

Employee income impacts

Development and construction income impacts

The development of Ottawa's retail properties support a significant income base, including:

- The income of development, construction and fit-out workers; and
- The income received by consultants during development, construction and fit-out, including architects, engineers, etc.

During the construction of new retail properties in 2011, it is estimated that \$56.6 million in income for direct full-time employees was generated, with an additional \$27.5 million for full-time employees engaged through supplier based activity. Thus, Ottawa's retail property construction generated an estimated total income of \$84.1 million in 2011.

2011 Ottawa retail property construction income impacts (millions)	
Direct income	\$56.6
Indirect impact	\$27.5
Total impact	\$84.1

Operation income impacts

The operations of Ottawa's retail properties support a significant income base, including the income of property management, operations, and maintenance staff; and

Through the operations of Ottawa's retail properties in 2011, it is estimated that \$102.8 million in income for direct full-time employees was generated, with an additional \$48.3 million for full-time employees engaged through supplier based activity. Thus, Ottawa's retail properties generated an estimated total income of \$151.1 million in 2011.

2011 Ottawa retail property operation income impacts (millions)	
Direct income	\$102.8
Indirect impact	\$48.3
Total impact	\$151.1

Transaction income impacts

The disposition of Ottawa's retail properties support a significant income base, including the income received by consultants, lawyers, appraisers, brokers, etc.

Through Ottawa's retail property transactions in 2011, it is estimated that \$7.3 million in income for direct full-time employees was generated, with an additional \$2.5 million for full-time employees engaged through supplier based activity. Thus, these transactions generated an estimated total income of \$9.8 million in 2011.

2011 Ottawa retail property transaction income impacts (millions)	
Direct income	\$7.3
Indirect impact	\$2.5
Total impact	\$9.8

Summary of employment income impacts

In summary, the development, construction, fit-out, operations and transactions of Ottawa's retail properties in 2011 generated over \$245 million in employee income.

2011 Ottawa retail property employee income impacts (millions)	
Direct income	\$166.7
Indirect impact	\$78.3
Total impact	\$245.0

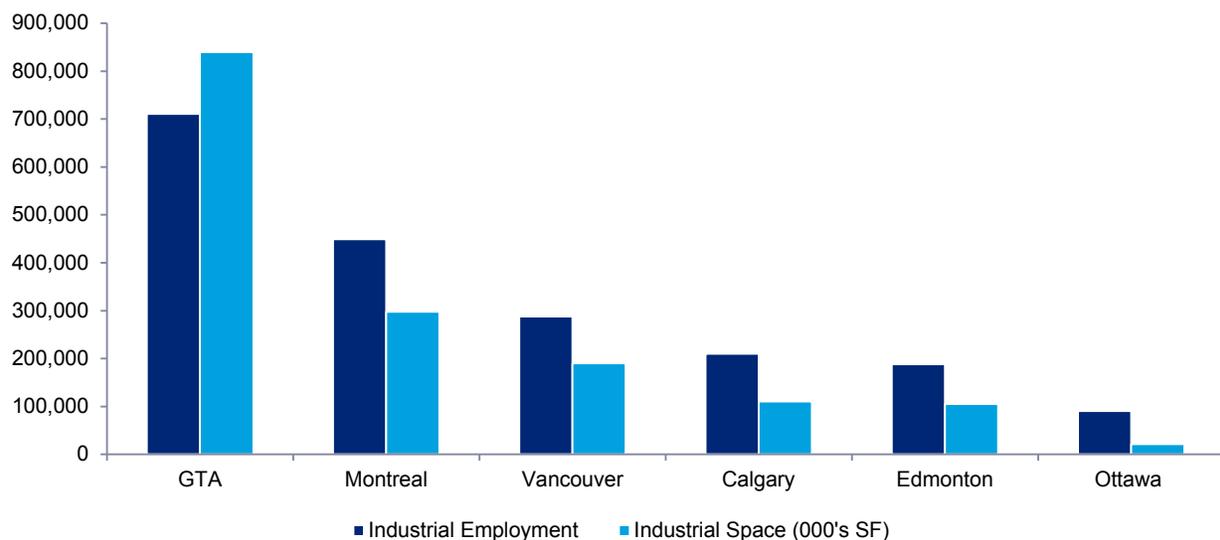
Industrial market: Industry footprint

Introduction

The City of Ottawa currently holds approximately 21.5 million square feet, supporting over 90,000 employees within Ottawa's industrial based sectors, including manufacturing, construction, transport/warehousing, and primary and utilities, which can be expected to be accommodated within the City's industrial space¹⁴.

In comparison to other Canadian major markets, Ottawa supports a smaller-sized industrial sector. Ottawa varies significantly from other major markets with respect to key driving factors and dynamics of industrial development, including local economic growth, population size, industrial sectors, industrial employment base, and employment land.

Canadian major markets – industrial sector employment and total inventory (000's of square feet)



Source: Conference Board of Canada, Cushman & Wakefield 2012

Major Ottawa industrial sector (manufacturing) employers ¹⁵	Employees
General Dynamics Canada	2,000
Nordion	1,000
Abbott Point of Care Lab	1,000

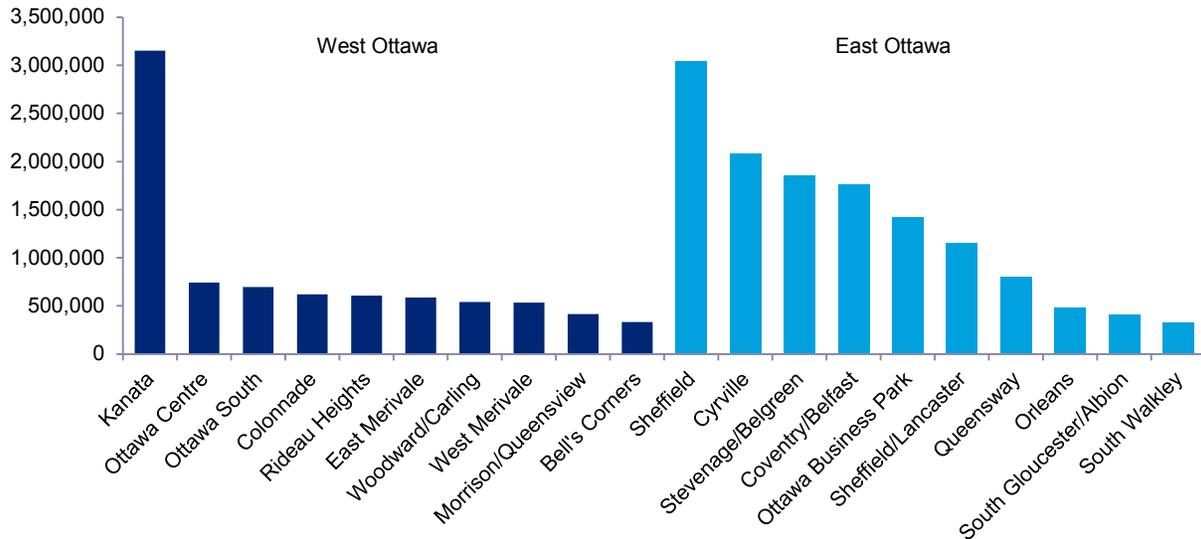
¹⁴ Conference Board of Canada, Metropolitan Outlook, 2012.

¹⁵ City of Ottawa, Major Employers in City of Ottawa, 2006

Industrial product largely concentrated in East Ottawa

Ottawa's industrial space is largely located in the east, with approximately 13.3 million square feet, while 8.2 million square feet is located in west Ottawa. Kanata and Sheffield each hold over 3 million square feet of industrial property, the greatest concentration relative to other Ottawa submarkets.

Ottawa industrial inventory by submarket (square feet)



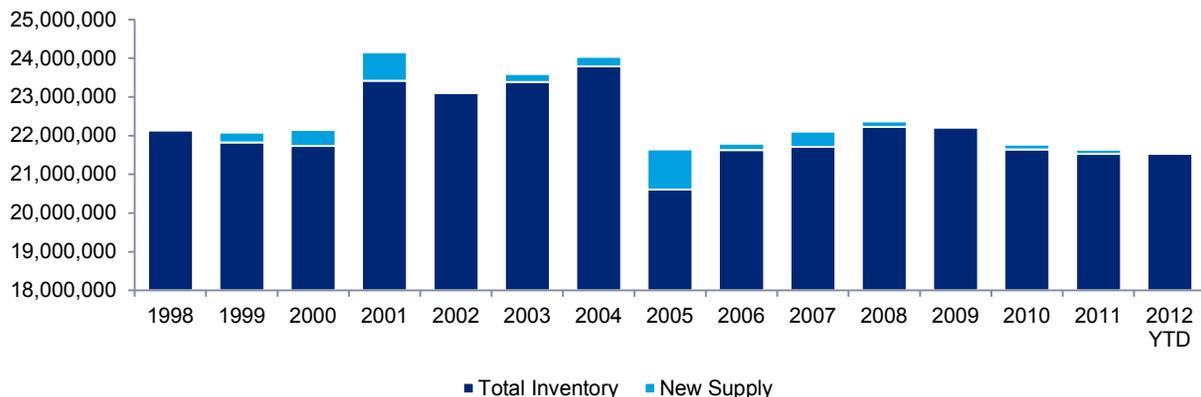
Source: Cushman & Wakefield 2012

Modest growth of industrial supply

The City of Ottawa's industrial market currently comprises approximately 21.5 million square feet. The City's industrial supply has increased over the longer term, with the addition of over 4.8 million square feet of industrial space since 1985.

After peaking to over 1 million square feet in 2005, and 400,000 square feet in 2007, new industrial supply has remained modest in recent years. The new development of industrial space in Ottawa has been absorbed into the market, as vacancies have remained below 6% from 2000 to 2009, with 2012 vacancy sitting at 6.2%. Currently, approximately 1.4 million square feet of industrial space is vacant in Ottawa, of which approximately 25% is available for sublease.

Ottawa industrial market total inventory (square feet)

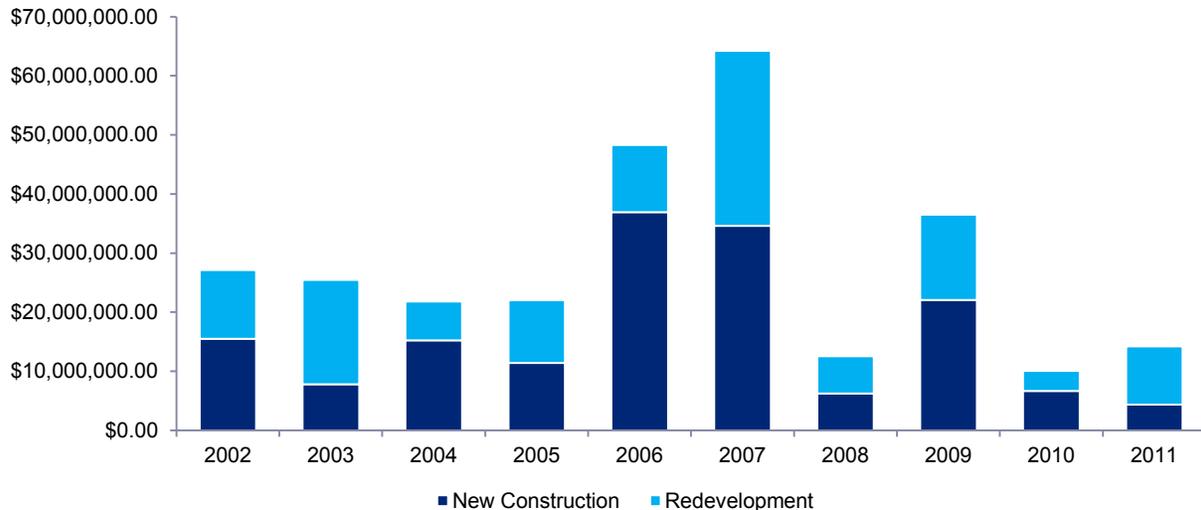


Source: Cushman & Wakefield, 2012

Stabilizing building permit activity

Ottawa's industrial building permits have totaled approximately \$290 million in value from 2002 to 2012. Annually, Ottawa's industrial building permit activity has fluctuated over the past decade, particularly from 2006 to 2010, rising close to \$65 million in 2007, and decreasing thereafter, to approximately \$14 million in 2011.

Industrial building permits 2002 – 2011 (\$ thousands)

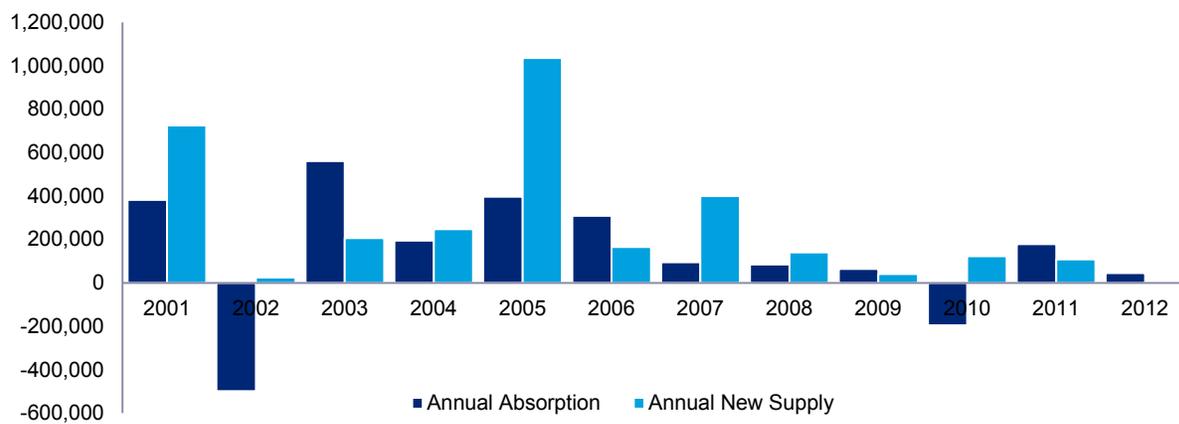


Source: City of Ottawa, 2012

New supply in the Ottawa industrial market is absorbed

Overall absorption at the end of 2011 was approximately 179,000 square feet, which is a substantial improvement from the negative 196,000 square feet absorbed at the end of 2010. Absorption was also greater than the 109,000 square feet of new supply. Historical trends indicate that the Ottawa industrial market was undersupplied from 2003 to 2005, as new supply was consistently being brought to market, thus vacancy rates remained low and absorption remained positive.

Ottawa industrial market absorption (square feet)

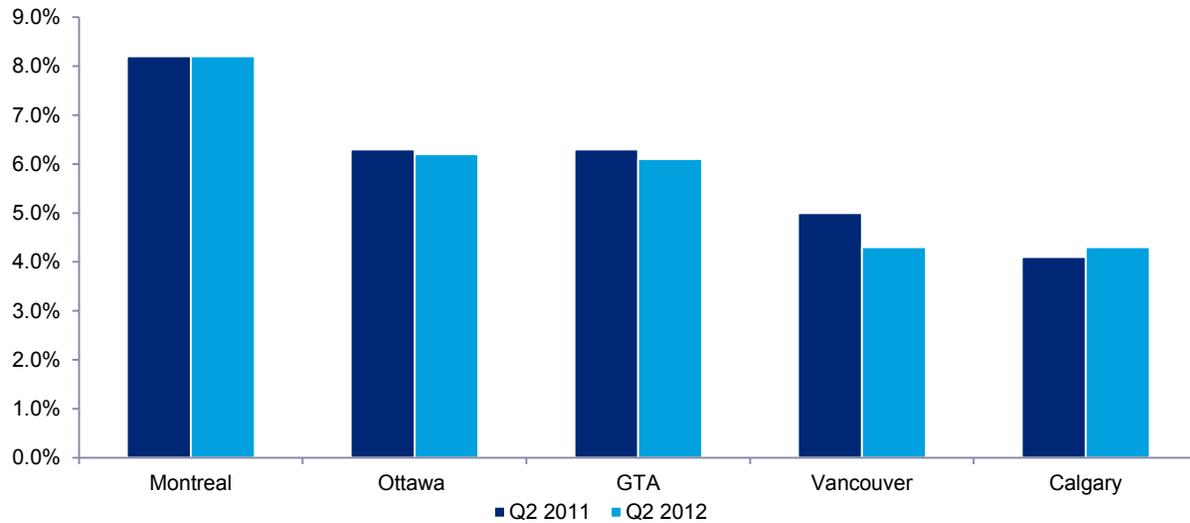


Source: Cushman & Wakefield, 2012

Stabilizing vacancy in line with national levels

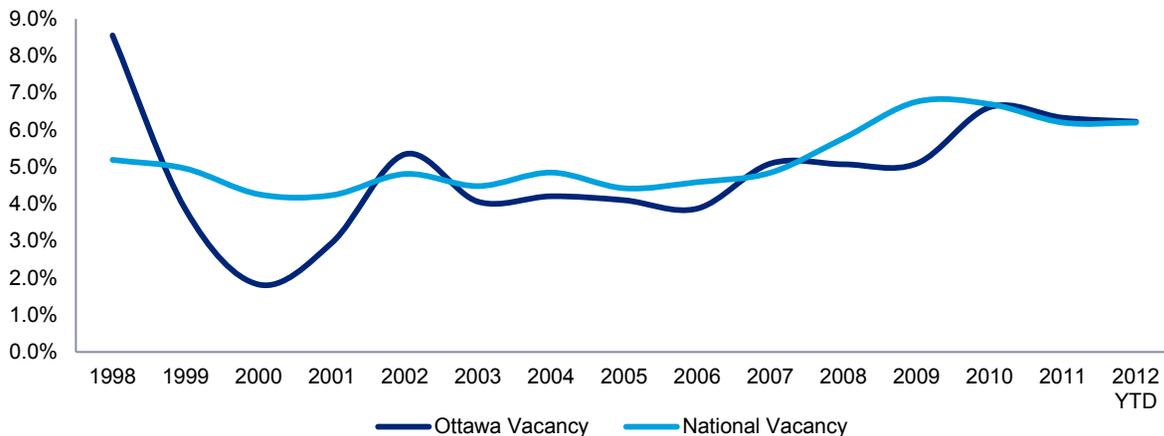
Increasing vacancy since 2006 coincides with a diminishing manufacturing industry, specifically within Ontario. The vacancy rate within Ottawa's industrial market currently sits at approximately 6.2%. This is a healthy vacancy rate, coinciding with national levels, and is comparative to vacancies across the country.

Canadian major markets – Q2 2011/2012 industrial market vacancy (%)



Source: Cushman & Wakefield, 2012

Ottawa and national industrial market vacancy (%)



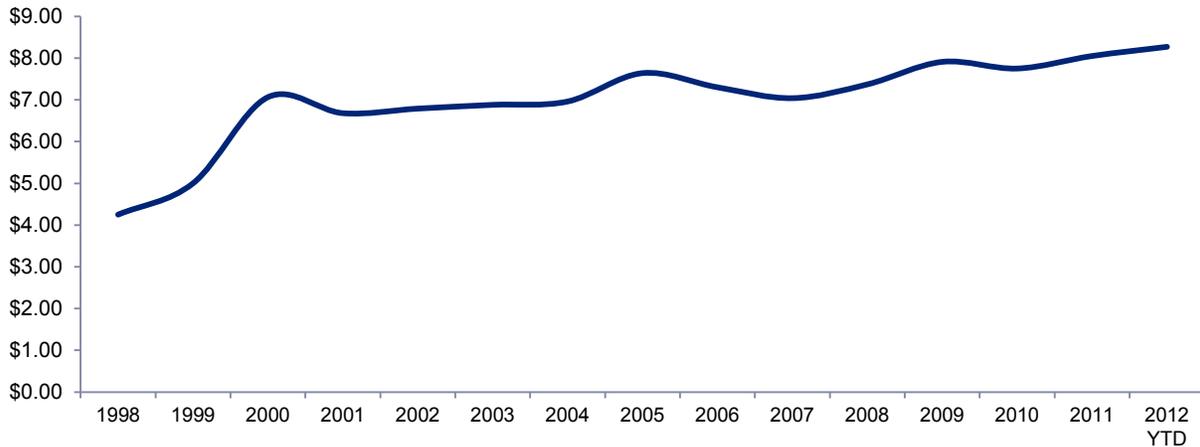
Source: Cushman & Wakefield, 2012

Net rental rates have trended upwards slightly

Rental rates have been trending upwards since 2001. In the past decade there has been an approximate 21% growth in net rental rates. Tenants are looking for higher quality space that offers flexibility and durability in their business activities. Thus, landlords are responding to such demand, resulting in growing net rental rates, which sat above \$8.00 per square foot at Q2 2012, approximately 41% higher than the national average of \$5.67 per square foot.

After a fairly active 2011, Cushman & Wakefield forecasts that leasing activity will slow down, and rental rates should remain stable in the short term. Larger spaces will become available towards the end of 2012, which may put some downward pressure on rental rates, and subsequently increase vacancy rates.

Ottawa industrial market net rent (psf)

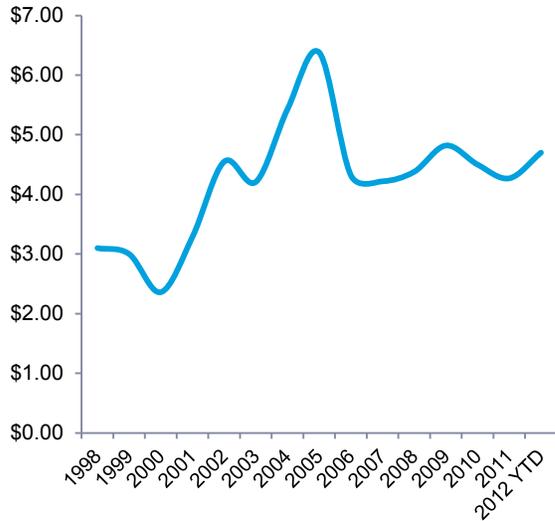


Source: Cushman & Wakefield, 2012

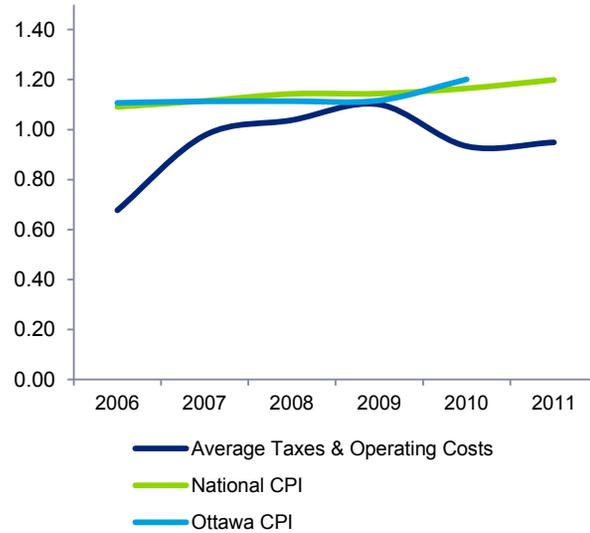
Steady taxes and operating costs

Ottawa's property taxes and operating costs have decreased in recent years after peaking in 2005, and at Q2 2012 sat at approximately \$4.70 per square foot, approximately 40% higher than the national average of \$3.35 per square foot. The growth rate of Ottawa's industrial taxes and operating costs (per square foot) has recently remained below national and Ottawa level CPI levels.

Ottawa taxes and operating costs (psf)



Ottawa taxes and operating costs growth and CPI

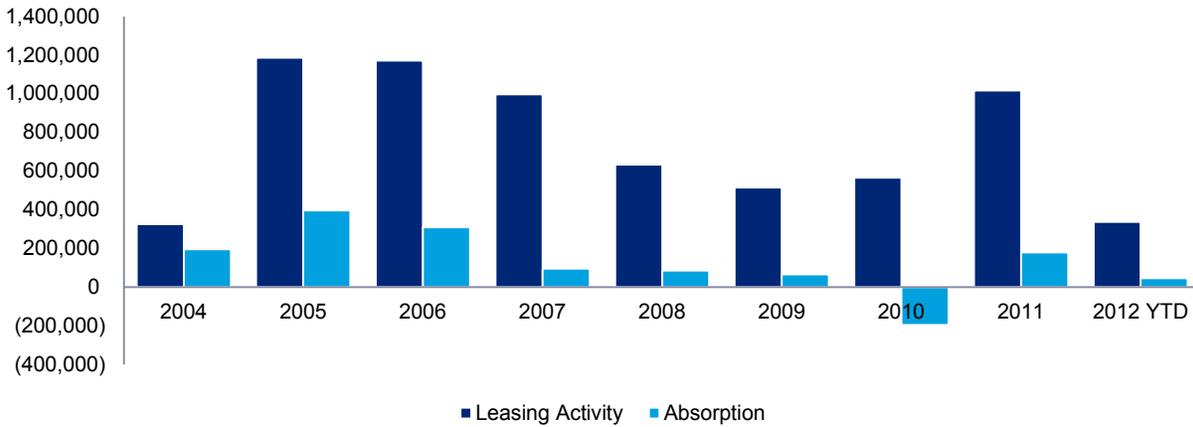


Source: Cushman & Wakefield, Conference Board of Canada, Statistics Canada, 2012
 Note: Average taxes and operating costs are indexed and chained to 2002, as with CPI

Strong leasing activity

Industrial leasing activity was strong in 2011, reaching over 1 million square feet after less than 600,000 square feet in 2009 and 2010. At Q2 2012, approximately 340,000 square feet was leased over 2012.

Ottawa industrial leasing activity and absorption (square feet)

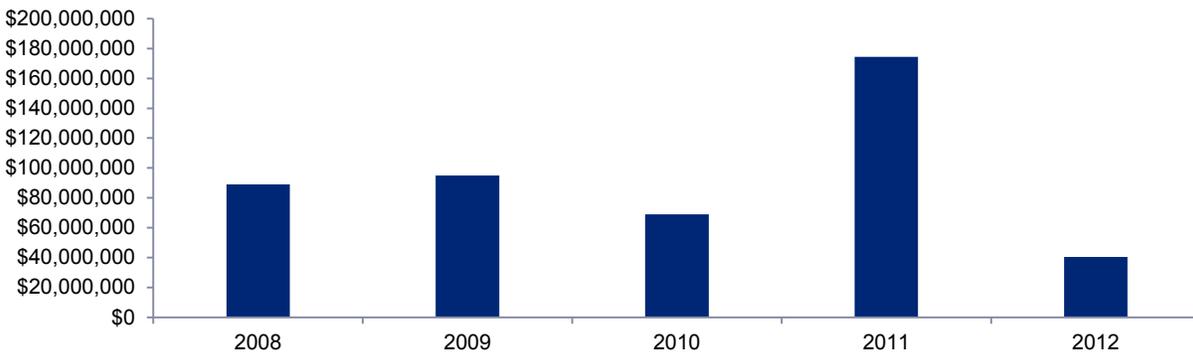


Source: Cushman & Wakefield, 2012

Transaction activity

Industrial investment was strong over 2011, with several deals over \$1.0 million closing, totalling nearly \$175 million. At Q2 2012 year to date, investment totalled \$40.5 million. As with the other investment markets, this is largely due to the lack of available product for sale as many investors welcome the opportunity to acquire Ottawa properties.

Ottawa industrial sales transactions



Source: Cushman & Wakefield, 2012

Industrial property economic impacts

Summary of industrial economic impacts

The City of Ottawa's growing industrial real estate market generates extensive direct and indirect economic impacts to the City, as summarized in the table below.

The development, construction, fit-out, operations and transactions of Ottawa's industrial properties in 2011 generated an estimated \$426.3 million in total economic output impacts, approximately total full-time employment of 2,200, and total income impacts of \$112.1 million.

	Economic output (millions)	Employment	Income (millions)
Direct impact	\$339.9	1,230	\$77.3
Indirect impact	\$86.4	920	\$34.8
Total impact	\$426.3	2,150	\$112.1

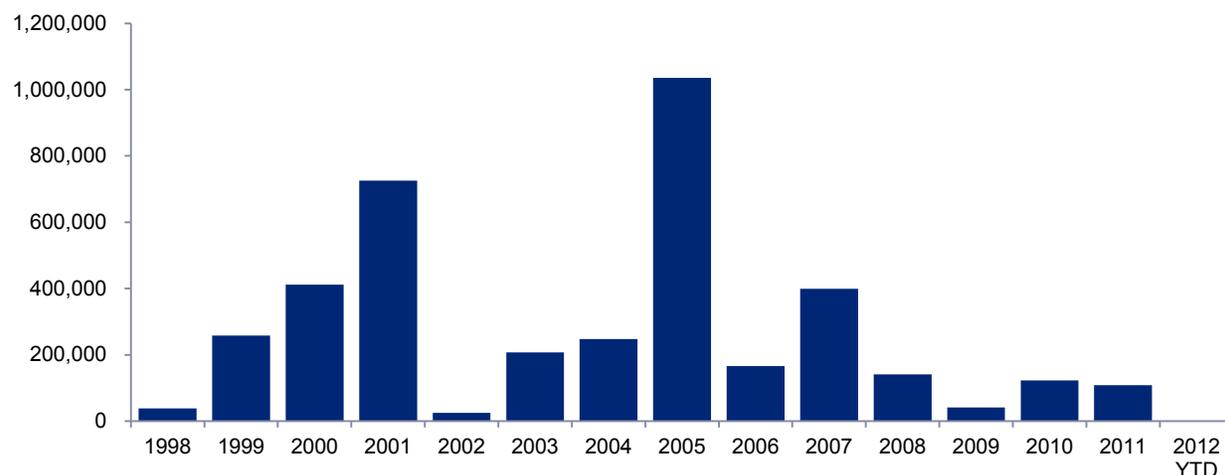
The following section outlines the estimated economic impacts of such spending, employment, income and municipal revenue in more detail, within Ottawa's industrial market, in 2011.

Economic output impacts

Development and construction economic output impacts

In 2011, Ottawa added approximately 109,000 square feet of new industrial supply to the market. The development of Ottawa's industrial properties support a significant degree of spending activity across Ottawa, including development, construction and fit-out expenditure, including materials, construction and consulting oriented labour, furniture, leaseholds, etc.

Ottawa new industrial inventory (square feet)



Source: Cushman & Wakefield, 2012

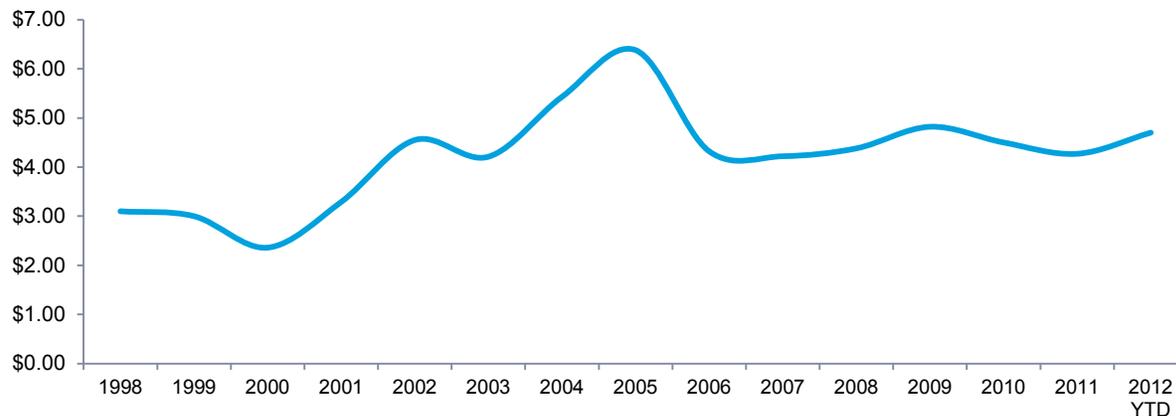
Given 109,000 square feet of new industrial supply completed in the City of Ottawa in 2011, an estimated \$24.4 million in direct expenditure was incurred related to construction, with a total economic output impact of \$35.5 million.

2011 Ottawa industrial property construction economic output impacts (millions)	
Direct impact	\$24.4
Indirect impact	\$11.1
Total economic output impact	\$35.5

Operation economic output impacts

Ottawa's taxes and operating costs currently sit at approximately \$4.70 per square foot. The operations of Ottawa's industrial properties support a significant degree of spending activity across Ottawa, including property operating expenditure, including utilities, maintenance and repair, administration, property management and consultant oriented labour, etc.

Ottawa taxes and operating costs (psf)



Source: Cushman & Wakefield, 2012

Given the supply of approximately 22 million square feet of industrial space in the City of Ottawa in 2011, average operating costs per square foot and estimated expenditure pertaining to property management, maintenance, leasing, administration, and additional support functions, the direct and corresponding indirect economic impacts of Ottawa's industrial property operations were assessed.

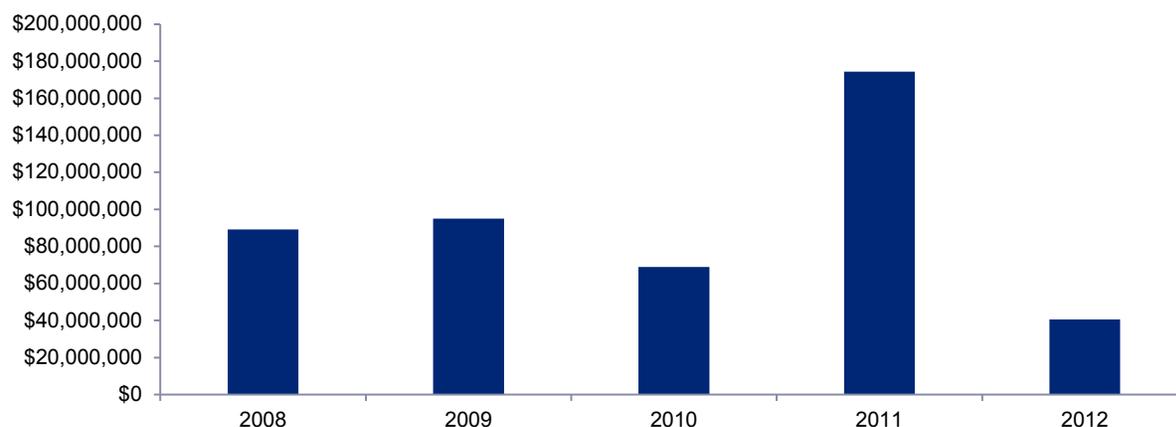
An estimated \$121.1 million in direct expenditure was incurred related to operations, with a total operational economic output impact of \$167.4 million.

2011 Ottawa industrial property operation economic output impacts (millions)	
Direct impact	\$121.1
Indirect impact	\$46.3
Total economic output impact	\$167.4

Transaction economic output impacts

Industrial investment was strong over 2011, totalling nearly \$175 million. The disposition of Ottawa's industrial properties support a significant degree of spending activity across Ottawa, including industrial property transaction sales, consultant oriented labour, etc.

Ottawa industrial sales transactions



Source: Cushman & Wakefield, 2012

Given an approximate \$174.4 million in industrial property transactions in 2011 in Ottawa, estimated fees related to brokerage, valuation, legal and other services, an estimated \$194.5 million in direct expenditure was incurred related to transactions, with a total spending impact of \$223.4 million.

2011 Ottawa industrial property transaction economic output impacts (millions)	
Direct impact	\$194.5
Indirect impact	\$28.9
Total economic output impact	\$223.4

Summary of economic output impacts

In summary, the development, construction, fit-out, operations and transactions of Ottawa's industrial properties in 2011 generated an estimated \$426.3 million in total economic output impacts.

2011 Ottawa industrial property economic output impacts (millions)	
Direct impact	\$339.9
Indirect impact	\$86.4
Total economic output impact	\$426.3

Employment impacts

Development and construction employment impacts

The development of Ottawa's industrial properties support a significant number of employees within Ottawa, including:

- Development, construction and fit-out workers; and
- Consultants during development, construction and fit-out, including architects, engineers, etc.

During the construction of new industrial properties in 2011, it is estimated that 180 direct full-time employees were utilized, with an additional 70 full-time employees engaged through supplier based activity. Thus, Ottawa's industrial property construction employed an estimated total of 250 full-time employees in 2011.

2011 Ottawa industrial property construction employment impacts	
Direct employment	180
Indirect employment	70
Total employment	250

Operation employment impacts

The operations of Ottawa's industrial properties support a significant number of employees within Ottawa, including, property management, operations, maintenance staff, leasing agents, etc.

Through the operations of Ottawa's industrial properties in 2011, it is estimated that 860 direct full-time employees were utilized, with an additional 690 full-time employees engaged through supplier based activity. Thus, Ottawa's industrial property operations employed an estimated total of 1,550 full-time employees in 2011.

2011 Ottawa industrial property construction employment impacts	
Direct employment	860
Indirect employment	690
Total employment	1,550

Transaction employment impacts

The disposition of Ottawa's industrial properties support a significant number of employees within Ottawa, including consultants during operations, including appraisers, leasing agents/brokers, etc.

Through Ottawa's industrial property transactions in 2011, it is estimated that 190 direct full-time employees were utilized, with an additional 160 full-time employees engaged through indirect impacts. Thus, Ottawa's industrial property transactions employed an estimated total of 350 full-time employees in 2011.

2011 Ottawa industrial property transaction employment impacts	
Direct employment	190
Indirect employment	160
Total employment	350

Summary of employment impacts

In summary, the development, construction, fit-out, operations and transactions of Ottawa's industrial properties in 2011 generated approximately 2,150 full-time employees.

2011 Ottawa industrial property employment impacts	
Direct employment	1,230
Indirect employment	920
Total employment	2,150

Employee income impacts

Development and construction income impacts

The development and operations of Ottawa's industrial properties support a significant income base, including:

- The income of development, construction and fit-out workers; and
- The income received by consultants during development, construction and fit-out, including architects, engineers, etc.

During the construction of new industrial properties in 2011, it is estimated that \$9.7 million in income for direct full-time employees was generated, with an additional \$4.7 million for full-time employees engaged through supplier based activity. Thus, Ottawa's industrial property construction generated an estimated total income of \$14.5 million in 2011.

2011 Ottawa industrial property construction income impacts (millions)	
Direct income	\$9.7
Indirect impact	\$4.7
Total impact	\$14.5

Operation income impacts

The development and operations of Ottawa's industrial properties support a significant income base, including the income of property management, operations, maintenance staff and leasing agents.

Through the operations of Ottawa's industrial properties in 2011, it is estimated that \$53.2 million in income for direct full-time employees was generated, with an additional \$25.0 million for full-time employees engaged through supplier based activity. Thus, Ottawa's industrial properties generated an estimated total income of \$78.2 million in 2011.

2011 Ottawa industrial property operation income impacts (millions)	
Direct income	\$53.2
Indirect impact	\$25.0
Total impact	\$78.2

Transaction income impacts

The disposition of Ottawa's industrial properties support a significant income base, including the income received by consultants during operations, lawyers, appraisers, brokers, etc.

Through Ottawa's industrial property transactions in 2011, it is estimated that \$14.4 million in income for direct full-time employees was generated, with an additional \$5.0 million for full-time employees engaged through supplier based activity. Thus, these transactions generated an estimated total income of \$19.4 million in 2011

2011 Ottawa industrial property operation income impacts (millions)	
Direct income	\$14.4
Indirect impact	\$5.0
Total impact	\$19.4

Summary of employment income impacts

In summary, the development, construction, fit-out, operations and transactions of Ottawa's industrial properties in 2011 generated over \$112 million in employee income.

2011 Ottawa industrial property employee income impacts (millions)	
Direct income	\$77.3
Indirect impact	\$34.8
Total impact	\$112.1

Development charge and property tax revenue

Development charge revenue

The development and redevelopment of the City of Ottawa's office, retail and industrial properties results in development charges disbursed to the City of Ottawa. In 2011, office development charges in central Ottawa were approximately \$13-\$14 per square foot, retail development charges in Ottawa were approximately \$10-\$12 per square foot, and industrial development charges in Ottawa were approximately \$6-\$7 per square foot¹⁶.

2011 Development charges per square foot	
Office property	\$13.00 – \$14.00
Retail property	\$10.00 – \$2.00
Industrial property	\$6.00 – \$7.00

According to the City of Ottawa, development charge revenue totalled approximately \$107.4 million in 2011. Approximately \$19.3 million, or 18% of this revenue was provided by non-residential property developers. While such non-residential property can be expected to largely comprise office, retail and industrial property, it should be noted that there are various other types of commercial property (i.e., hospitality property, entertainment/recreational property, etc.) that also contribute to this revenue.

2011 Development charge revenue (millions)	
Residential development charge revenue	\$88.1
Non-residential development charge revenue	\$19.3
Total development charge revenue	\$107.4

¹⁶ City of Ottawa Development Charges Fee Schedule, By-Law 2009-216, 2012.

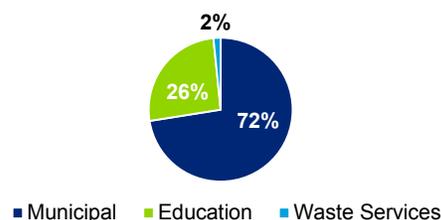
Property tax revenue

The operations of Ottawa's office, retail and industrial properties result in significant property tax revenue to the City of Ottawa. According to the City's 2011 Annual Report, in 2011 the City of Ottawa had total of approximately \$1.7 billion available in property taxes. Approximately \$817.2 million, or 46% of 2011 property tax revenue is estimated to result from non-residential sources. While such non-residential property can be expected to largely comprise office, retail and industrial property, it should be noted that there are various other types of commercial property (i.e., hospitality property, entertainment/recreational property, etc.) that also contribute to this revenue.

2011 Property tax revenue	
Residential property tax revenue	\$950.9
Non-residential property tax revenue	\$817.2
Total property tax revenue	\$1,688.1

The above noted property tax revenue is distributed to various levels of government and uses. According to the City of Ottawa, commercial real estate property taxes are allocated to 1) the City of Ottawa for municipal services, 2) provincially based education system, and 3) provincially managed waste management, as identified in the table and chart below. Of the \$817.2 million of non-residential property tax revenue received in 2011, the City received approximately \$592.5 million for municipal services¹⁷.

Property tax revenue allocation (millions)	
Municipal	\$592.5
Provincial/Education	\$211.7
Waste Services	\$13.1



Summary

Thus, the City's commercial real estate industry also yields significant revenue to the City of Ottawa, in addition to the various economic impacts previously identified. In 2011, the City of Ottawa received approximately \$19.3 million in development charge revenue, and \$592.5 million in property taxes, from non-residential property development and operations. Through the generation of \$611.8 million in total municipal revenue in 2011, the industry is a major contributor to the municipality and its annual operations.

2011 Development charge and property tax revenue	
Non-residential development charge revenue	\$19.3
Non-residential property tax revenue	\$592.5
Total non-residential revenue	\$611.8

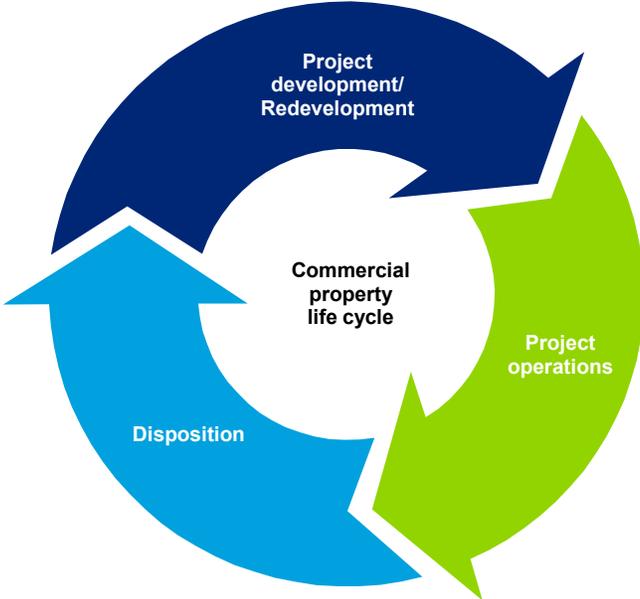
¹⁷ City of Ottawa, Annual Report 2011, and City of Ottawa Finance Department, 2012.

Summary and conclusions

In conclusion, it is evident that the City of Ottawa’s commercial real estate market supports and accommodates Ottawa’s significant commercial employment base, while generating extensive direct and indirect economic impacts to the Ottawa and broader provincial economy, throughout the life cycle of development, construction, fit-out, operations and transactions of such properties.

In 2011, the City of Ottawa’s commercial real estate industry generated an estimated \$2.6 billion in total economic output impacts from spending activity, approximate total full-time employment of 16,600 and total income impacts of over \$827 million.

Additionally, the City’s commercial real estate industry yields significant revenue to the City of Ottawa. In 2011, the City of Ottawa received approximately \$19.3 million in development charge revenue, and \$592.5 million in property taxes, from non-residential property development and operations. Through the generation of \$611.8 million in total municipal revenue in 2011, the industry is a major contributor to the municipality and its annual operations.



Total commercial real estate industry impact

	Office, retail and industrial industry employment	Economic output (billions)	Employment	Income (millions)	Municipal revenue (millions)*
Total impacts	490,000	\$2.6	16,600	\$827	\$611

*Includes all non-residential development charges and property taxes

Clearly, if these economic impacts were examined over an extended longer-term period, and given potential future expansion of Ottawa’s commercial sectors, the total impact of the City’s commercial real estate industry would be increasingly significant and impactful to local economic growth. A simple extrapolation of the \$2.6 billion in annual economic output impact over the past decade yields an order of magnitude of some \$26 billion in impact to the City of Ottawa.

As such, the City of Ottawa’s business leaders and government officials need to clearly understand the industry’s economic impact and effectively engage with the local commercial real estate community, to ensure that appropriate decisions are made to effectively support and meet the needs of this very important industry.

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