From: "Town of Shelburne - Community & Economic Development" <jlocke@town.shelburne.ns.ca>
To: <clerks@halifax.ca>
Date: 17/01/2011 1:47 pm
Subject: Fw: Yarmouth/Maine ferry economic impact
Attachments: Letter of Support -Yarmouth..Maine Ferry Economic Impact Study.doc; Yarmouth..Maine Ferry Economic Impact Study- Report.pdf; Executive Summary - Yarmouth..Maine Ferry Economic Impact Study.pdf; Layman's overview - Yarmouth..Maine Ferry Economic Impact Study.pdf

In Dec 2009 the Nova Scotia Government withdrew our investment in the Yarmouth/Maine international ferry.

The Shelburne Chamber of Commerce, with funding partners Yarmouth and Barrington Chambers of Commerce commissioned the Yarmouth/ Maine Ferry Economic Impact Study because the province was unable to supply quantitative justification for removing the provincial investment. The study asked if the $6,000,000 invest in the ferry was a good investment for the province of Nova Scotia.

The results of the study, conducted by Spencer Economic Consulting were released at the World Trade and Convention Center in Halifax October 18, 2010. The study has attracted attention by numerous groups throughout the province. On Feb 8th, 2011 we have been requested to make a presentation to the Standing Committee on Economic Development for the Province of Nova Scotia.

The statistical data for this study has been taken only from Canada and Nova Scotia government statistical data sources. Projections were carried forward by using the most conservative data available. This allows the study to be valid in good economic times and poor economic times.

The report shows the investment in the Yarmouth /Maine ferry would have produced the 4.25% rate of return required by the province for investment, paid back the $6 million investment and generated an additional $9 million in returns.

These significant financial returns to the province of Nova Scotia would have been even more impressive if North America were not in the middle the work recession in 50 years. In better economic times it is believed the results would have been even more impressive.

Tourists visiting Nova Scotia from the United States or any other foreign country are recorded to the Nova Scotia GDP as exports. In addition to reducing our exports we have cut off a direct trade and communication route with three of the USA's top ten highest gross domestic profit per capita states.

It is important to maintain the existing links and to aggressively use them as a major economic link to the country's major trading partner.

Because this study has an economic impact on the entire province it is the Chamber's intention to develop a provincial Working Committee to pursue the requirements to reinstate this important economic link.

The Chamber of Commerce would like to have your support during the February 8 Standing Committee meeting. They intend to present letters of support from Nova Scotians that ask the government to reconsider its decision on the ferry service and to consider investing in the key place that the ferry service holds in the economy of Nova Scotia.

The Chamber has attached a sample of a letter of support on this issue. Please open the attached sample, add your name and address to the bottom of the letter to indicate your support. You may also choose to compose your own letter.

The letter should be emailed to Community and Economic Development, Town of Shelburne jlocke@town.shelburne.ns.ca and cc'd to the Honourable Percy Paris, Minister of Economic and Rural Development econmin@gov.ns.ca .

We will print copies of all the emailed letters for the Chamber. They will take copies of all the emails it receives to the February 8 meeting and present them to the Standing Committee. Letters are still welcome after that date.

Please distribute this information to anyone that may also want to indicate their support for the ferry service.

Jerry Locke, Director
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By email,

Dear Chamber members,

Ferry service between Yarmouth Nova Scotia and the Untied States provides a vital link in the transportation system and the economy of Nova Scotia.

Loss of the ferry service between Yarmouth and the United States has impacted a wide variety of businesses and operations throughout Nova Scotia.

I support efforts to have the ferry service reestablished and recognize its importance to the economy of Nova Scotia.

I would ask the government of Nova Scotia to reconsider its decision to not provide funding the ferry service and to consider investing in the key place that the ferry service holds in the economy of Nova Scotia.

Yours truly,

Executive Summary

The impact of a ferry service on the economy: the case of Nova Scotia

The purpose of this study is to develop and employ an appropriate model that can be used to establish the economic impact of a Yarmouth/Maine ferry service on Nova Scotia. The purpose of the study is to determine the viability of an international ferry service operating from Yarmouth/Maine. Although the study uses data pertaining to years when the CAT operated the study is neutral to what type of ferry service is used. The study takes great care to use the most conservative realistic data and given that tourists using this service are at a historic low it is likely this goal is achieved. The ferry provides service between Yarmouth, Nova Scotia and Bar Harbor and Portland, Maine. Yarmouth, Nova Scotia has operated a ferry service to the New England area since 1897, and Bay Ferries has been operating the route since 1997.

The international ferry service enabled 41,449 entries into the town of Yarmouth in 2009. 79% of which were US residences, 18.2% were Canadian residents, and 2.8% were non-US non-Canadian residents. US residences stay in Nova Scotia, on average, 6.5 days, Canadian residents returning via the ferry make a round-trip which is considered 1 day, and non-US non-Canadian residents stay on average 10.8 days.

In 2009, US residences spent on average $82 a day, non-US non-Canadian residents spent $69 a day, and Canadian residents making a return trip are assumed to have spent $46 a day. US tourist receipts resulted in $17.1 million non-US non-Canadian tourist receipts resulted in $827,000 and Canadian tourism receipts resulted in $375,000. Total tourism receipts generated by the ferry service were adjusted with leakage and growth multipliers. In 2009 the ferry service generated $19.2 million in tourism receipt revenue, and is expected to generated $23.4 million in 2015.

Additional income dispersed throughout Nova Scotia, not included in tourism receipts, are wages paid to ferry employees and Canada Border Services Agency employees. In 2009 there were 43 full time equivalent employees working for these two groups, and yielding $1.7 million in wages. Additional income of $2.8 million is also earned in the form of consumption tax on ferry tickets sold in Nova Scotia.

In 2010 the ferry service would have generated $22.2 million and by 2015 this number is expected to increase to $25.7 million. 34% ($7.5 million) of this would be in the form of wages and 21% ($4.7 million) in the form of taxes. The net (free cash flows) of the generated revenue and required investment of $6.1 million is $16.2 million in 2010. Financing the Yarmouth/Maine ferry service produces some impressive financial indicators. With an internal rate of return ranging from 169% to 273%, a cash on cash return ranging from 1.84 to 3.32 and a significantly positive discounted cash flow this investment exceeds typical standards in the private sector, who typically see internal rates of return between 30% - 40%.

The worth of an investment is entirely dependant on all other existing investments. When comparing this project against private equity standards this project exhibits above average returns. If this project performs as well as or better than existing provincial projects then this project should be financed to maximize benefits to Nova Scotians.

A Layman's Overview of the Yarmouth/Maine Ferry Economic Impart Study October 2010

Prepared by Jim Spencer, President
Shelburne and Area Chamber of Commerce

The Shelburne and Area Chamber of Commerce have not accepted the reasons issued by the province for canceling the Yarmouth/Maine for the 2010 season. The reason given by the province included:

> The premier has told CBC "We cannot continue to subsidize services that are not sustainable."1 The minister of Economic and rural development has notified the media "We do our due diligence. As tough as this is, we believe it's the right one." "There just wasn't a business case for the Cat."

As a result the Shelburne Chamber with funding partners, Barrington and area Chamber of Commerce and the Yarmouth and Area Chamber of Commerce began the process to fund a study with the simply question being: Is the tax payer's $6,000,000 investment in the Yarmouth /Maine ferry a good investment for the province of Nova Scotia.

We have been engaged with this project since Dec 2009. The results of the study, conducted by Spencer Economic Consulting were released at the World Trade and Convention Center in Halifax October 18, 2010. The study has attracted attention by numerous groups throughout the province. On Feb 8th, 2011 we have been requested to make a presentation to the Standing Committee on Economic Development for the Province of Nova Scotia.

The statistical data for this study has been taken only from Canada and Nova Scotia government statistical data sources. Projections were carried forward by using the most conservative data available. This allows the study to be valid in good economic times and poor economic times. The study is supported with pages of spreadsheet data and calculations open to the public for scrutiny.

The principle of the study is to determine how well the investment of the Yarmouth/Maine ferry compares to any other projects in which the government is considering investing provincial money. The government of Nova Scotia expects a 4.25% return when investing the taxpayer's money. Any dollars earned above the 4.25% rate are a bonus to the taxpayers of Nova Scotia.

The report shows the investment in the Yarmouth to Maine ferry would have produced the 4.25% rate of return required by the province for investment, paid back the $6 million investment and generated an additional $9 million in returns.

This investment gives a significant financial return to the Province of Nova Scotia. It should be noted that the above revenues were generated using the statistical data collected in 2009. The numbers should have been even more impressive if North America were not in the middle of the worst recession in 50 years. In better economic times it is believed the results would have been even more impressive.

Tourists visiting Nova Scotia from the United States or any other foreign countries are recorded as exports. Instead of processed or manufactured products being sent to foreign consumers we simply prepare the product and invite visitors to consume goods and services while visiting in Nova Scotia. The removal of the Yarmouth/Maine ferry has not only eliminated a significant income stream for the Nova Scotia economy but it has also eliminated a highly prized export market at a time when the government is striving to increase exports to help pay down the provincial deficit.

New England is home to three of the USA's top ten highest gross domestic profit per capita states. This has a two-fold effect on the Nova Scotia economy:

1. It gives Nova Scotia a lucrative market from which to expand its export market of tourism and to create additional export value.

2. High-income earners place a high value on their time. If New Englanders have to drive through New Brunswick and into Nova Scotia via Amherst, or take a New Brunswick to Digby extra travel time will result. Both of these alternatives are more time consuming than the Yarmouth to Maine ferry service and therefore are significantly less attractive to New England residents for travel to Nova Scotia.

With traditional industries fighting for a diminishing market it is difficult to understand what prompted the Province to also jeopardize the lucrative New England export market.

Spencer Economic Consulting

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The impact of a ferry service on the economy: the case of Nova Scotia

June 2, 2010

SPENCER ECONOMIC CONSULTING

Introduction

This report was commissioned following the decision of the provincial government to not finance the existing ferry service between Yarmouth, Nova Scotia and the United States. The stakeholders of southwestern Nova Scotia determined an economic impact study was required to properly analyze and convey the impacts the ferry service had on Nova Scotia.

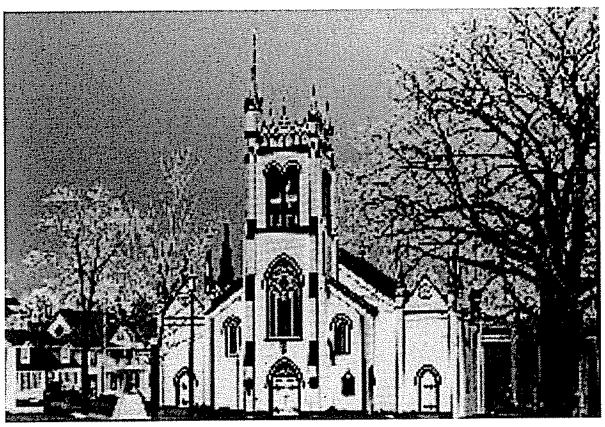
The purpose of this study is to develop and employ an appropriate model that can be used to establish the economic impact of a ferry service on Nova Scotia. The model used is based on a similar study produced by the Scottish Office Industry Department and Highlands and Islands Enterprise in co-operation with Caledonian MacBrayne Limited.[i] This study is funded by the Shelburne and Area Chamber of Commerce and co-funded by the Yarmouth and Barrington Chambers of Commerce. The study is also conducted in collaboration with Discover Shelburne County Tourism Association. The priority concern of the business community, including the tourism industry, is specific to the economic impact of a ferry service operated between Yarmouth, Nova Scotia and Maine, USA. The research also provides insight into the effects of transport infrastructure provision on rural economies. In particular, this is relevant to those communities located in southwestern Nova Scotia. The removal of the ferry transport service in this area will have the most significant impacts across correlated industries. The Chambers of Commerce and the tourist associations believe this to be an under-researched topic and the results of the study could be used to assist in future public/private expenditure decisions.

Nova Scotia is a Canadian province and is located on the south-eastern coast of mainland Canada. During 2009 it had a population of 940,397 and is noted as the second most densely populated province.[ii] For the last 20 years the population of Nova Scotia has been growing at slower rates. Although population growth is still positive it is trending towards a contraction.[iii]

Nova Scotia is primarily a resource-based economy, however it has increasingly marketed itself as a tourist destination over the most recent decades. As of 2004, tourism contributed $1.31 billion CAD to the Nova Scotian economy; approximately 4.07% of provincial GDP.[iv] The industry employs nearly 33,000 people and supports more than 6,500 direct businesses.[v] The province is a particularly attractive destination for residents of the US's New England states, and in 2006 the provincial capital of Halifax attracted 200,000 cruise ship passengers alone.[vi]

Although Halifax is the most active Nova Scotian entry point for New Englanders, other significant points of entry have existed. Since 1897 a ferry service has connected the town of Yarmouth, Nova Scotia with New England. Bay Ferries, a privately held company based in the Canadian province of Prince Edward Island, took over this international ferry service in 1997. At that time they replaced the existing monohull ferry with a multihull, high-speed ferry that operated as "the Cat". In 2002, Bay Ferries upgraded the ferry again. Since 2006, however, they have operated the route with the assistance of a subsidy from the Nova Scotian government. In 2010, Bay Ferries requested an investment of $6 million CAD from the provincial government in order to operate the ferry service, which was declined. The ferry service from Yarmouth to Maine has since been discontinued indefinitely.

This study will seek to determine if the ferry service from Yarmouth to Maine meets the Nova Scotia social discount rate of 4.25%.[vii] In addition it will measure the project in terms of cash on cash return, and allow the reader to compare $6,000,000 of working capital invested in the ferry service to other provincial projects by using discounted cash flows.



Market Conditions

Before the methodology of the study was determined, a thorough market analysis was completed to determine relevant factors. The following observations were made:

- The provincial government was faced with two possible strategies.

Strategy 1: Invest in the Cat for the 2010 operating year in the amount of $6 million CAD.

Strategy 2: Do not invest in the Cat for the 2010 operating year and subsequently incur a $3 million CAD fee payable to Bay Ferries.[viii] The government is able to receive a $600,000 CAD discount in this fee by paying early.

- Canada Border Services Agency ("CBSA") currently operates a port of entry in Yarmouth, NS for its international aircraft and ferry arrivals. With the discontinuation of the 2010 ferry service it is likely that CBSA would close Yarmouth's port of entry.[ix] Even considering the conservative scenario, that every CBSA employee is paid the minimum on the CBSA pay scale, it is unlikely these employees would find a comparable wage in the area. The workers who are inclined to remain in Yarmouth will compete in a job market experiencing 15.8% unemployment and for an average wage much lower than the CBSA pay scale. Given that this would result in these employees being transferred out of Yarmouth, CBSA would likely require up to a year in order to recruit the border service officers required for reopened port of entry.
- New England is home to three of the USA's top ten highest GDP per capita states.[x] As such, this area's residents place a relatively high value on their time. In the absence of the Yarmouth/Maine ferry, New Englanders must drive into the province via Amherst, or take a New Brunswick to Nova Scotia ferry; a time and cost commitment of equal value. Both of these alternatives are more time consuming than the Yarmouth/Maine ferry service and therefore are significantly less attractive to New England residents.

Research Objectives and Data Sources

The objectives for the research were to determine; a) the financial impacts of the ferry service (including tourism receipts, generated labour and tax implications) and, b) a method to determine a cap on public investment in ferry services. The research will address the option value[xi] of ferry services in the affected geographic regions where isolation will become a serious factor.

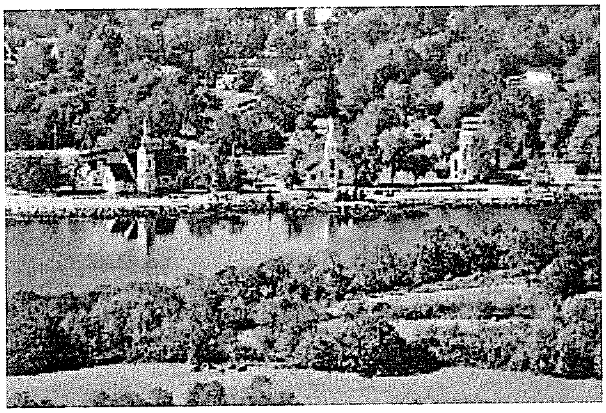
The majority of the relevant data was collected from CANSIM, a 2004 Visitor Exit Survey and by Nova Scotia Insights. Yarmouth tourist arrival data is extracted from the most recent CANSIM tables. Data is from 2007 - 2009 and represents the number of tourist entries. Descriptors of the tourists are extracted from the 2004 Visitor Exit Survey.

All data, which was not current, was forecasted forward using appropriate growth rates. All variable data and assumptions have intentionally been scaled to the most conservative and likely estimates in that order of priority. Using the most conservative numbers portrays the project in a worst case scenario context. This allows the project to remain current and valid through most changes in the economic environment, short of major anomalies. It is of the authors' opinion that all projects should be estimated in this manner. Aggressive estimations will lead to unforeseen costs, and public disappointment. By using conservative estimates, errors are typically unforeseen upsides to revenue streams.

Inflation is projected to be 2% based on the Bank of Canada's target. The rate of growth of the Cat has been estimated at 1% per year by the CPCS South West Nova Scotia transportation study funded by Atlantic Canada Opportunities Agency. The authors have assumed that wages in the tourism industry will increase in proportion with the Nova Scotia average. Wages are forecasted ahead using a 3 year historical average at 2.59% per year. The wage growth rate is derived from the Nova Scotia department of finance. CBSA employees wages are forecasted ahead using a 3 year historical average of 1.5% per year. The data is acquired from the Treasury Board of Canada Secretariat. Federal, Provincial, and Municipal tax rates are derived from the Nova Scotia Insights Input Output models, and are set at the most recent year. Given the deficit the provincial government holds, it is likely that this is a conservative assumption. Income taxes were derived using income tax rules on the average full time equivalent Nova Scotia tourism related salary. The federal and provincial tax rates used represent the net taxation on the individual. Because tourism wages are assumed to increase in proportion with other industry wages, the taxation rate is expected to remain constant.

The social discount rate (the government's minimum return needed on an investment.) is 4.25%. Given that the economy is in a recessed state this is a little high, however this assumption is consistent with the study's conservative estimates.

Finally, tourism multipliers used are derived by Brian Vanblarcom of Acadia University. The study incorporates a tourism growth multiplier and a tourism leakage multiplier. Tourism not only creates jobs in the tertiary sector, it also encourages growth in the primary and secondary sectors of industry. This is known as the tourism growth multiplier. It measures how many times money spent by tourists circulates through a country's economy. When a tourist purchases goods and services the money does not always remain in the local economy. Not all tourist expenditures benefit the local economy. It refers to rate at which revenue generated by tourism is lost to other countries' economies.



Measuring the Impact of Ferry Services on the Nova Scotia Economy

This study estimates and aggregates the cash flow impacts on the Nova Scotia economy resulting from the provincial government's two possible ferry investment options. The impacts are estimated by tourist arrival expenditures, indirect tourism related wages, as well as the required financing to fund each strategy.

Results of the study are reported using three financial indicators: Internal Rate of Return, Cash on Cash multiple, and Discounted Cash Flows. The strength of these financial indicators lies in their ability to cross compare projects. In the public sector there are always more projects on the table than there are funds. These financial indicators allow projects to be compared with each other to determine which projects will have the best return on tax dollars. Spencer Economic Consulting advises caution when trying to equate the financial indicators used in business to those used by government. Business financial indicators are adept at measuring the worth of a project in the current year compared with the project's past years. Government financial indicators are adept at measuring the worth of one project to another.

Strategy 1 - is choosing to subsidize the operation of the Yarmouth/Maine ferry service. The cost of this strategy is $6 million CAD in 2010 and in each subsequent year the subsidy is assumed to grow at the same rate as the demand for the ferry service.[xii]

There are several positive cash flows that occur as a result of subsidizing the ferry service; the largest is ferry passenger expenditures. This captures the money tourists spend during their stay in Nova Scotia, excluding ferry fares. This was estimated by multiplying Yarmouth's ferry arrivals by average bed nights[xiii] and average tourist expenditure per day. This cash flow accounts for tourism receipts in the form of goods, services, and any relevant taxes.

Wages earned by employees in Yarmouth that are not funded by tourist expenditures are also positive cash flows stemming from subsidizing the ferry. These wages are primarily those earned by Bay Ferries' and CBSA's employees. Although Bay Ferries is a domestic company, because its profits accrue to Prince Edward Island, its ticket sales revenue is not considered to benefit Nova Scotia and as such the wages it pays to its Yarmouth employees can be counted as positive cash flows. The federal government pays CBSA employees and should the port of entry in Yarmouth be closed, it is assumed that another federal government service of equal value would not take its place. As such, wages paid to CBSA employees are considered a benefit dependant on the ferry service.

Strategy 2 - is choosing not to subsidize the operation of the Yarmouth/Maine ferry and subsequently force Bay Ferries out of operation in Yarmouth. In late 2009, the provincial government opted to employ this strategy.

When the provincial government chose not to finance the ferry service, they broke a contract between Bay Ferries and themselves. To end the contract prematurely the provincial government had to pay a fee of $3 million CAD. They were able to reduce this fee in the amount of $600,000 CAD by paying in advance of the balance due date. The provincial government then earmarked $200,000 for the promotion of Yarmouth and Southwestern Nova Scotia as a tourist destination. Therefore the true cost to Strategy 2 was $2.6 million CAD.

It is assumed that the $200,000 CAD allocated by the provincial government for the promotion of Yarmouth and Southwestern Nova Scotia will be invested in 2010. However, due to the investment's close proximity[xiv] to peak tourism season it is unlikely that the revenues associated with the investment will accrue to the area until 2011. Investment in the marketing campaign is assumed to have the same cash on cash return[xv] as financing the ferry service. Since tourism marketing promotions are typically short-lived ventures, the cash flows generated by the provincial government's expenditure in this case have been forecasted over a two-year period, starting in 2011.

Table 1 - is a summary of the key economic impacts occurring from each strategy. It shows that financing the Yarmouth/Maine ferry service produces some impressive financial indicators. With an internal rate of return[xvi] ranging from 169% to 273%, a cash on cash return ranging from 1.84 to 3.32 and a significantly positive discounted cash flow this investment exceeds typical standards in the private sector, who typically see internal rates of return between 30% - 40%.

The cumulative free cash flows represent all of the combined positive and negative cash flows associated with a strategy. Included in this category are the total cumulative wage and taxation benefits. Wages and taxation represent 54% and 30% respectively of the free cash flows in strategy 1.

Although strategy 2 has a one time, upfront cost of $2.6 million CAD, it has little ability to recover funds, and has few lasting effects. As shown in Table 1, the cash on cash return is maximized at 0.32 and at all times the discounted cash flows recommend not investing in this strategy as it does not meet the provincial government's mandated discount rate.[xvii]

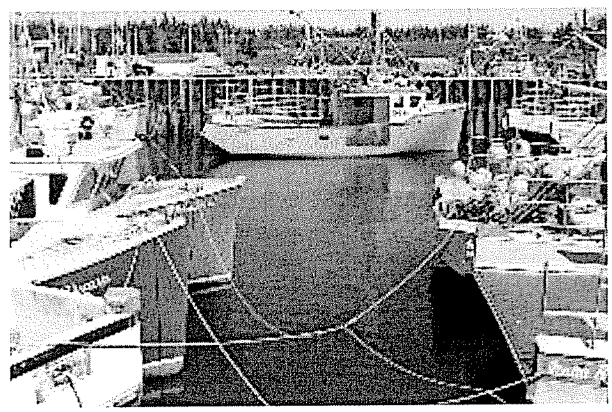
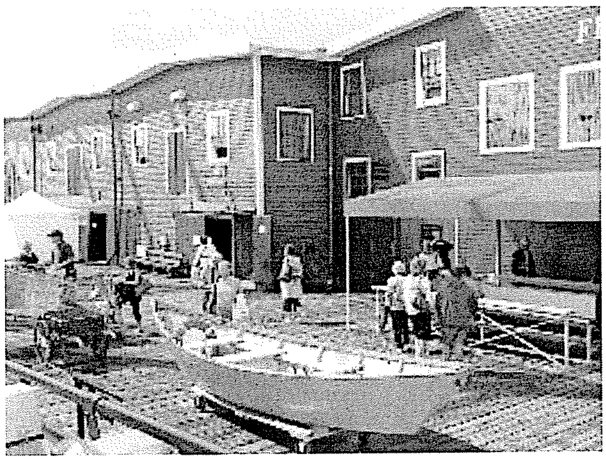


Table 1 - Strategy 1 & 2 Economic Impacts	Year 1 2010	Year 2 2011	Year 3 2012	Cumulative Total 2015
Strategy 1 - Invest in Ferry				
Cash Generated	$22,220,903	$22,871,865	$23,542,157	$143,485,212
Provincial Financing	-$6,060,000	-$6,120,600	-$6,181,806	-$43,281,211
Free Cash Flows	**$16,160,903**	**$16,751,265**	**$17,360,351**	**$100,204,001**
Internal Rate of Return	169%	249%	267%	273%
Cash on Cash Return Multiple	1.84	2.48	2.82	3.32
Discount Cash Flows	**$9,502,065**	**$24,915,360**	**$40,237,884**	**$85,642,612**
FTE Jobs Supported	205	215	222	259
Strategy 2 - Do Not Invest				
Cash Generated	$0	$696,189	$210,000	$906,189
Provincial Financing	-$2,600,000	$0	$0	-$2,600,000
Free Cash Flows	**-$2,600,000**	**$696,189**	**$210,000**	**-$1,693,811**
Internal Rate of Return				
Cash on Cash Return Multiple		0.27	0.35	
Discount Cash Flows	**-$2,494,005**	**-$1,883,926**	**-$1,707,403**	
FTE Jobs Supported	0	8	2	0

Conclusions

This economic study clearly indicates that the provincial government is forgoing a significant source of revenue to Nova Scotia. An annual investment of $6,000,000 generates $22,220,903 of revenue to residents of Nova Scotia. The provincial government is currently taking commendable action on reducing the provincial debt by cutting non-performing and obsolete programs. The results of this paper have shown that the Yarmouth/Maine ferry service performs with strong financial indicators. This project should be compared with the financial indicators of the lowest performing projects[xviii] that the provincial government is currently financing or considering to finance. This will optimize expenditure of taxpayer dollars. The discounted cash flows show that the Maine/Yarmouth ferry service meets the estimated 4.25% social discount rate, and an additional return of $9.5M; the returns in future years are even more impressive. Given the recent economic downturn the 4.25% desired by the public is likely high, but it is used so that the results remain conservative.



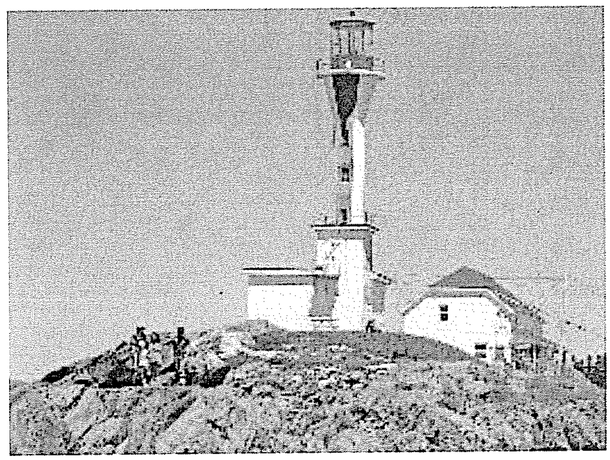
Tourism exports is spending by non-Canadian visitors on Canadian-produced goods and services.[xix] Non-Canadian residents traveling to Nova Scotia are of great importance to the Nova Scotia export economy. Tourism exports are no less important than any other form of export. When comparing exports one should use the comparative techniques used in this study to determine relative worth. Tourism is a growing industry in Nova Scotia, and the New England market has among the highest expenditures per person.[xx] The current recession has shown that developed countries with relatively large export markets have kept unemployment rates relatively lower than countries with relatively large import markets.[xxi] The revenue generated from the Yarmouth/Maine ferry service largely originates from New England expenditures. The ferry service increases the exports to Nova Scotia, an item of high priority to the province.[xxii]

- Loss of CBSA - There are other consequences that are not quantitatively recorded in the study, but bear mentioning. Should CBSA close Yarmouth's port of entry in the absence of Bay Ferries' service, CBSA will likely require up to a year to re-establish the port should an interested party wish to begin operating an international ferry route out of Yarmouth again. This one-year waiting period results from Yarmouth's loss of human capital due to the transfer of the area's border service officers to other regions. As such, choosing to not invest in the Yarmouth/Maine ferry service is likely a commitment of two years of no ferry service.

- Liquidation of 10 year assets - Secondly, the region has adapted to the presence of a ferry service, given the service's long-standing existence in the region. This has resulted in significant long-term financial and time investments in both physical and human capital assets. Physical assets will depreciate with or without a ferry service and it is likely any assets on a 10-year depreciation cycle would be liquidated or transferred to another tourism market. It is believed this liquidation or transfer of assets would occur due to the fact that a missed year of operation would represent a substantial percentage of the asset's lifetime earning potential. This in turn reduces the owner's ability to recover the cost of the asset. Human capital is capable of geographic migration and in the past has labour has shown these tendencies in Atlantic Provinces with migration to Western Canada. The removal of the ferry service could create an outflow of labour correlated with the Yarmouth/Maine ferry service. If a ferry service is reinstated, the area may be ill equipped to deal with a sudden resurrection in demand given the departure of these assets. The seriousness of the above statements should not be underestimated. Recovery of liquidated assets requires a motivated business environment and excess cash flows.

- **Isolation Factor** - This study summarizes the monetary effects, derived from the tourists who use the ferry service, in Nova Scotia. However, the value that industries, other than tourism, obtain from the ferry service should not be ignored. The CPCS study shows that there has been significant historical commercial activity on the Yarmouth/Maine ferry route. The existence of the ferry route helps define the business environment in which the area operates; one that is connected with the New England market by boat, and the Halifax market by road. It is of the author's opinion that these transportation options have intrinsic value in fostering commercial activity in the region. Furthermore it is of the author's belief that without a ferry service, the outlook of businesses closest to the ferry service would dampen due to an increased feeling of isolation. This could, in turn, have widespread affects on the area, including the potential to create a greater dependence on social assistance. This in turn downloads costs to municipal units and puts a greater dependency on government programming.

The results calculated by Spencer Economic Consulting show the financing of the ferry service for the 2010-year as the more publicly beneficial strategy. When creating assumptions to shape the foundation of this study and the economic impacts within, conservative estimates were used over aggressive estimates. This assures that the results of this study are reported in a worst case scenario context. Spencer Economic Consulting recognizes that some variables of the ferry service can be adjusted to realize improved economic impacts. Replacing the current ferry service with another is a popular public discussion. Any ferry service that replaces the Cat should be cognisant of current market demand shortfalls (cruise ship tourists & commercial transportation) and should cater to them.



Spencer Economic Consulting recommends 3 complementary studies in addition to this.

1) Determine human and capital assets dependant on the international ferry service and quantify their economic impacts.

2)Determine an appropriate ferry replacement for the Cat through market research. Determine a list of appropriate replacement ships.

3)Determine the full financial effects of the ferry's option value

[i] World Transport Policy & Practice 2/4, 8-12 (1996)
[ii] Statistics Canada. Retrieved 2010-04-13
[iii] Statistics Canada. Retrieved 2010-04-13
[iv] Nova Scotia Business Inc. Retrieved 2010-04-13
[v] Tourism Industry Association of Nova Scotia. Retrieved on 2010-04-13
[vi] Going Global, Staying Local: A partnership Strategy for Export Development, Government of Nova Scotia. Retrieved on 2010-04-13
[vii] Nova Scotia Department of Finance, Economics and Statistics Division: Following the recommendation of using the private sector consensus of 4.24% 10 year bond rate. Retrieved 2010-06-30 Private industry - Economica: Use a diversification of long-run real rate of interest (social discount rate): The rate of return on trust company five year guaranteed investment certificates, the interest rate on the Government of Canada 10-year bonds, and the rate of return on RRBs. Private industry experts recommend a social discount rate of 4.25%. The two numbers are close enough that the difference is insignificant and a value of 4.25% is employed for this study. Retrieved 2010-04-20

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ix Nova News Now, Border services union worried about jobs, Yarmouth's port of entry status without ferry service. Retrieved 2010-04-15.
x United States' Bureau of Economic Analysis. 2009
xi Option value is the worth of a complementary good or service to the public. In the case of this study option value exists for consumers in their choice of transportation. Users may travel using ferry, or road. Removing an option from a market can have significant effects on the societal and business environment.
xii CPCS has estimated this growth rate to be 1% per year.
xiii In the hotel industry bed nights is a measurement of occupancy for accommodations. 1 bed night represents the purchase of accommodation by an individual for 1 night.
xiv CBC News - Nova Scotia, N.S. premier booed in Yarmouth. Retrieved 2010-04-07
xv Cash on cash return is incoming cash divided by cash invested, and expressed as a percentage.
xvi The discount rate often used in capital budgeting that makes the net present value of all cash flows from a particular project equal to zero. Generally speaking, the higher a project's internal rate of return, the more desirable it is to undertake the project.
xvii Selecting the Discount Rate, Retrieved on 2010-04-20
xviii The financing of the worst performing provincial projects should sum to $6,000,000 CAD; this totals the financing needed to fund the ferry service.
xix Statistics Canada: Tourism Glossary. Retrieved on 2010-07-01
xx 2004 Nova Scotia Visitor Exit Survey. Retrieved on 2010-02-15
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