



Hamilton

U.S. STEEL CANADA Economic Impact Study

January 2015

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Executive Summary

US Steel Canada (USSC)

- A large amount of previously non-public information with regard to United States Steel Corporation (USS) and USSC operations has been made available to the public through information released by USSC;
- The Hamilton Works location sits on a total of 813 acres of land, a large land holding, but relatively small in size when compared to Lake Erie Works, which is over 8 times larger at 6,600 acres;
- USSC employed 2,337 people as of July 31, 2014. Of this total, as of July 31, 2014, approximately 1,743 are represented by local bargaining units of the United Steelworkers ("USW").

USSC Pension Plan Analysis

- The four pension plans provide USSC pensioners with over \$231 million in total pension income annually;
- Hamilton Bargaining Plan (Local 1005) members represent over 65% of the total 14,338 USSC pension plan members (as of December 31, 2013), and have the lowest annual average pensions (\$16,355);
- The absence of a Cost of Living Adjustment (COLA) has a significant financial impact on USSC pensioners;
- The projected impact of not having a 2% COLA for an individual over 25 years is a loss of \$100,000, and the estimated loss of income for the 7,050 Hamilton pensioners over 25 years is almost \$700 million;
- The Solvency Deficiency for Hamilton Bargaining Plan pensioners is over \$61,000 per member, which is the equivalent to almost four years of the average pension income for that plan;
- The Solvency Deficiency for Hamilton Salaried Plan pensioners is over \$71,000 per member, which is the equivalent to more than two years of the average pension income for that plan;
- The Hamilton Bargaining Plan could only afford to provide 73.4% of the expected annual pension to members, resulting in an average annual reduction of \$4,354, or \$363 a month;
- The Hamilton Salaried Plan could only afford to provide 88.5% of the expected annual pension to members, resulting in an average annual reduction of \$2,643, or \$220 a month;
- The Total Annual Minimum Contribution that USSC is required to make to all four pension plans in 2014 is almost \$71 million dollars;
- It would take approximately 67% of USS total cash to bring the USSC pension to a fully funded position (as of December 31, 2013); and
- The unfunded pension liability of USSC pensions is equal to approximately one fifth (20%) of the market cap of USS, and approximately one eighth of (13%) of the enterprise value or book value of USS.

Pension Benefits Guarantee Fund (PBGF)

- Over \$4.2 million cumulatively (all four pension plans) will be paid to the PBGF in 2014 to provide a form of insurance for USSC pensioners against the impact of pension fund shortfalls on wound-up pension plans;
- The implementation of the PBGF payment provides pension members with a payment equal to what their pension is underfunded by (100% - 70% = 30%) for the first \$1,000 of their monthly pension;
- The PBGF financial statements reveal significant variances to its annual balance sheet totals over the past couple of reporting years, and a recent history of large annual claims on the fund that were accepted; and
- The total liability for 2015 and all future years would likely be hundreds of millions of dollars, a projected number that is likely multiple times higher than the available PBGF balance of \$76.2 million (March 2012).

PBGF Impact on USSC Pensioner Income in Hamilton

- The impact of adjusting the annual forecast for all 7,050 pensioners to factor in the unfunded pension liabilities of the four pension plans is estimated to be total decrease of \$28.2 million annually;

- Adjusting the revised annual forecast to factor in PBGF payments would reduce the estimated annual \$28.2 million reduction in pensions to approximately \$8.7 million (\$19.6 million dollar PBGF related increase); and
- The successful application of PBGF funding for the 7,050 USSC pensioners with Hamilton mailing addresses is estimated to raise the average pension funding level from 76.8% to 92.9% (a 16.1 point increase).

USSC Pensioners in Hamilton

- Over 7,000 USSC pensioners from all four USSC pension plans reside in the City of Hamilton, representing over 60% of the identified USSC pensioners;
- If the distribution of the 11,699 identified pensioners is representative of the total population of USSC pensioners, then the City of Hamilton could be the city of residence for over 8,600 pensioners;
- Approximately 1.4% (1 in 72) of Hamilton's total population are known USSC pensioners;
- Approximately 6.3% (1 in 16) of Hamilton's population of 60+ years old are known USSC pensioners;
- Over 70% of USSC pensioners with Hamilton addresses are associated with a detached single family home;
- Those 5,043 USSC pensioners represent 4% of all single detached homes in Hamilton (1 in 25 homes);
- The properties associated with known USSC pensioners make sizeable cumulative contributions by ward, ranging from almost \$400 thousand in Ward 14 to over \$4.3 million in Ward 8; and
- The dwellings associated with known USSC pensioners in Hamilton provide the City with approximately \$24 million in property tax annually.

Potential Impacts on Health

- It is hard for seniors to cope with sudden changes in their economic status, due to the limits of a fixed income. (Fenge et al., 2012);
- The "asset rich-income poor" are considered at most financial risk (Fenge et al., 2012);
- Financial strain causes stress, depression and family pressures (Russo & Linkon, n.d.);
- Reduced retirement income is associated with heart-related death in both men and women (Fors, Modin, Koupil, & Vågerö, 2011);
- Single men without a cash margin are at a greater risk for heart attacks (Carlsson et al., 2014), and those men with reduced retirement income have a higher risk of death (Fors et al., 2011);
- Seniors who are not accustomed to seeking out services may not be aware of services available to them. They may also have trouble accessing those services (Fenge et al., 2012); and
- Stress can lead to many mental and physical health issues, the most serious being depression, heart disease and death.

Impact on City of Hamilton Revenues

- The annual total tax contributions from USSC have been steadily decreasing since 2000, having decreased over 70% from the \$22.56 million paid in 2000 to just under \$6 million forecasted for 2014;
- As the USSC tax revenues have been decreasing, the City of Hamilton total tax revenues have been steadily increasing, resulting in USSC's contributions representing a decreasing percentage of total revenues;
- USSC's tax contributions represented over 3% of total tax revenues in 2000, but is under 1% in 2014;
- The USSC tax contributions from recent years (prior to 2014) have recently been successfully appealed by USSC, and necessitating a large tax rebate owing to USSC of over \$6 million;
- The water related revenues from USSC has decreased as a percentage of total City of Hamilton water revenues from 3.8% in 2008 to a forecasted 1.3% in 2014; and
- A worst case scenario for the City of Hamilton as it relates to USSC property tax and water revenues would be a further reduction of approximately \$3.9M annually, reducing the current annual revenues from approximately \$6.6M (forecasted for 2014) to approximately \$2.7M annually in a future year.

Study Parameters

Objectives

The purpose of this report is to:

- Research and aggregate information related to US Steel Corporation (USS) and US Steel Canada's (USSC) current and future operations and economic footprint in Hamilton, Ontario; and
- Study the potential impacts of a worst case scenario (business bankruptcy with a significant funding shortfall to existing USSC pension plans) on USSC employees, pensioners and the City of Hamilton.

Methodologies

Information for this report was obtained through various search methodologies, including:

- Requesting previously researched information on the general topic areas from topic stakeholders;
- Requesting information from academic and subject matter expertise on related study topics;
- Requesting information on the population of all four USSC pension plan members from local union leaders, pension plan member organizations and pension plan administrators;
- Requesting property maps, property tax/other fees information from the City of Hamilton;
- Searching academic journals databases and white paper databases for information; and
- Retrieving publicly available information on relevant study topics.

Limits

The scope of this report is limited in a number of ways, including:

- The study is intended to be a high level overview and an aggregation of key information pertinent to the major study areas as directed by the Steel Committee, and does not represent a complete or exhaustive collection and analysis of information on any of the identified topics;
- The focus of the study is on potential "impacts" that would be realized in the City of Hamilton, so other geographic areas have been excluded from examination;
- The research team was able to obtain limited information on current USSC pension plan members, and the completeness or accuracy of the information obtained was not reviewed/verified; and
- Due to the limited scope of the study, the limited availability of required data sets and the time restriction on the delivery of this report, the study will not attempt to estimate or quantify the monetary value of any future direct or indirect economic and/or social impacts using economic formulas or multipliers. All attempts to qualify revenues or value will use sourced historical data.

Acknowledgements

This report has benefited from the generous contributions of guidance, information and research materials from a number of contributors. The project team would like to recognize the contributions of McMaster University's Department of Economics for their assistance in defining the scope of this report and their guidance on the research and reporting methodology. This report has greatly benefited from the assistance of USSC employee and pension groups, specifically from the USSC Actuarial Reports and address data of current USSC pensioners provided by the three main groups that represent USSC pensioners; the United Steel Workers (USW) Local 1005, the USW Local 8782 and the Stelco Salaried Pensioner's Organization (SSPO).

Introduction

The following report is meant to serve as a source of information for the City of Hamilton's Steel Committee on identified topic areas relevant to USSC, its ongoing operations in the City of Hamilton, and the impact of any material changes in the nature of its ongoing operations. Information and analysis has been grouped by major topic area, and the contents of these sections and the overall report is not intended to be an exhaustive analysis or overview of any topic area, rather a starting point that might lead to a more in-depth investigation, if directed.

US Steel Canada

According to document disclosures made by USSC related to its application to restructure under the protection of the *Companies' Creditors Arrangement Act (CCAA)* on September 16, 2014, USSC describes itself as an indirect, wholly owned subsidiary of USS, a publicly traded Delaware corporation. Headquartered in Pittsburgh, PA, USS is the largest integrated steel producer headquartered in the United States with roughly 42,000 (2010 estimate) employees and a market share of \$17.374 billion USD. USS has major production operations in the United States, Canada (Hamilton and Nanticoke) and Central Europe with an annual raw steel making capability of 27 million net tons.

USSC and its subsidiaries (and together with USSC's interest in the two joint ventures described below, the "USSC Group") are collectively one of Canada's leading steel producers. The USSC Group operates and conducts most of its business from two large steel plants located in Ontario – Hamilton Works ("Hamilton Works") located in Hamilton, Ontario and Lake Erie Works ("Lake Erie Works") located in Nanticoke, Ontario (which also has a separate finishing facility (the "Pickle Line")).

Historical Overview

There is a long history between USSC and the City of Hamilton, dating back to its founding over 100 years ago. Over the past couple of years, the Hamilton Spectator has provided a comprehensive overview and documentation of this history and the major milestones of the company through a number of articles. The articles have been listed in the report's bibliography for interested readers, and a small sample of some of the company's milestones is listed below:

- Formerly known as Stelco Inc., which was founded in 1910 under the name of "The Steel Company of Canada" by many small firms located in Hamilton;
- Products produced were: hot-rolled steel, cold-rolled steel, galvanized steel sheet, special bar quality, green steel, and ore mining;
- By the 1980s's, Stelco Inc. had employed almost 30,000 Hamilton residents;
- Stelco had its first major restructuring in 1990 which resulted in the loss of almost 50% of its work force;
- Stelco Inc. filed for CCAA protection in 2004 and attempted to restructure again, in order to compete in the global markets; and
- In 2007, Stelco Inc. was acquired by USS for \$1.9 billion in cash and assumed debts.

The 2007 acquisition of Stelco Inc. by USS required the involvement and ultimate approval of the federal government due to the nature of the acquisition of a Canadian company by a foreign company. As part of USS' application to the federal government for approval of the acquisition, USS made the following commitments, which were used to build the case for approval of the sale:

Key 2007 Commitments Made by USS

- Make \$200 million in capital investments in USSC;
- Maintain 3,105 workers at Hamilton Works and Lake Erie Works;
- Produce 13 million tons of steel annually;
- Guarantee the pension funding obligations of Stelco Inc. ; and
- Make \$31 million voluntary contribution to the USSC pension funds.

The years immediately following the acquisition of Stelco Inc. (now USSC) by USS saw a significant decrease in steel production and a failure of USSC to meet or even approach the investment, production and employment commitments made to win approval of the acquisition from the federal government. These commitment defaults prompted a legal response by the federal government and ultimately resulted in an undisclosed agreement between USS, USSC and the federal government that included additional operational and investment commitments, as outlined below:

Key 2011 Commitments Made by USS

- Operate Hamilton Works and Lake Erie Works until at least December 2015;
- Make at least \$50 million in additional capital investments to maintain Canadian facilities by December 2015 (above the previous \$200 million commitment); and
- Contribute \$3 million to community and educational programs in Hamilton and Nanticoke.

While the second round of commitments were likely intended to build upon those initial operational, investment and employment commitments with the objective of increasing the economic activity at USSC, the past few years since the 2011 Commitments were disclosed has witnessed a continued decline in economic activity from USSC.

Current Situation

Despite the involvement of both the provincial and federal government in the early stages of the acquisition of USSC to facilitate a viable business environment for USSC through approvals and financial assistance, and the commitments made by USS concerning USSC's operations, USSC is currently in a much weaker position than was likely envisioned by all major stakeholders in the initial weeks of the acquisition. As of December 2014, the commitments made by USS in both 2007 and 2011, relating to USSC are far from being realized, and have been replaced by the reality as outlined in the points below:

- Significantly less current employees at U.S. Steel Canada than was projected in 2007;
- An accelerating trend of decreasing capacity at U.S. Steel Canada;
- Significant uncertainty about future of U.S. Steel Canada's operations expressed by workers, pensioners, and resident stakeholders; and
- Concern about the long-term viability of the various U.S. Steel Canada pension plans after December 2015.

The negative trends relating to USSC's annual operational output, and the unknowns concerning the specific details of the 2011 commitments, due to the secret nature of the agreement between USS and the Canadian federal government, has caused many stakeholders to anxiously look towards the targeted date of December 2015 (identified in the 2007 Commitments) as a potential trigger for more disappointing revelations concerning USSC.

An Overview of the September 2014 USSC CCAA Filing

In September 2014, USSC entered CCAA protection, providing stakeholders with a clearer picture of the financial health of USSC, through the hundreds of pages of materials supporting their application. Since the initial filing date, there has been a significant number of developments relating to USSC's progress through the proceedings and the reactions of its many creditors, which has been covered by the Hamilton Spectator as seen in Appendix A: Spectator Coverage of September 2014 USSC CCAA Process.

The City of Hamilton has been a constant participant, focused on the advancement of the following priorities:

- Ensuring that the City maintains involvement in the process so that it receives all information disclosures relevant to the proceedings and can assess their impacts on the City of Hamilton and its stakeholders;
- Protecting the City's priority and ability to collect property tax revenues, water and sewage service charges;
- Advocating for the disclosure of documents material to the current situation and future operations of USSC, including the 2011 agreement between the federal government and USSC; and
- Supporting, in various circumstances, the efforts of the Province of Ontario, USSC employees and USSC retirees, in an attempt to minimize their potential financial losses as it relates to USSC and to advocate for a fair and transparent CCAA process.

Operations

A large amount of previously non-public information with regard to USSC and USSC operations have been made available to the public through information released by USSC related to the ongoing CCAA process. In those documents, USSC disclosed that it employed 2,337 people as of July 31, 2014. Of this total, as of July 31, 2014, approximately 1,743 are represented by local bargaining units of the United Steelworkers ("USW"). The documents also provided information to support the creation of a high level overview of current USSC operations, as seen in Chart A below.

Chart A: USSC - Overview of Current Operations

| Characteristic of USSC Operations | Lake Erie Works | Hamilton Works |
|---|---|--|
| Property Size | 6,600 acres | 813 acres |
| Annual Capacity | 2.7 million tons (raw steel production) | information not available |
| First Year of Operation | 1980 | 1905 |
| Current Principal Operations | Coke-Making Iron-Making Steel-Making Hot Rolling | Steel Finishing |
| Prior Principal Operations | | Iron-Making (ended Dec. 2013) Steel-Making (ended Dec. 2013) Coke-Making (hot-idled Oct. 2014) |
| Total Employees (as of July 31, 2014) | 1,397 | 771 |
| Unionized | 995 | 618 |
| Non-Union | 402 | 153 |
| USSC Pensioners (as of December 31, 2013) | 1,837 | 12,614 |

* Information obtained from USSC 2014 CCAA information disclosure

The chart on the previous page highlights key differences about the two main USSC locations, including the following:

- The Hamilton Works location sits on a total of 813 acres of land, a large land holding, but relatively small in size when compared to Lake Erie Works, which is over 8 times larger at 6,600 acres;
- The Hamilton Works location has lost the operational capability of Iron-Making and Steel-Making in the past 18 months, confirming the decreasing operational importance of the site;
- There are significantly more active workers at the Lake Erie Works location than the Hamilton Works location, and more USSC pensioners from Hamilton Works than Lake Erie Works, indicating a transfer of operational importance from Hamilton Works to Lake Erie Works over time; and
- Lake Erie Works has a higher ratio of non-unionized workers than the Hamilton Works.

Financial

Despite the increased access to information on USSC due to the CCAA process, the availability of USSC specific and focused financial statements have not been made available to the general public at this point. As USSC is a wholly owned company of USS, its financial performance is consolidated into the USS financials, which are regularly disclosed due to its nature as a publicly traded company in the United States of America. In Chart B below, some key financial indicators have been captured based on information available on December 17, 2014.

Chart B: USS - Financial Overview

| Indicator | Value | Date Retrieved and Source |
|----------------------------|------------------|--|
| Stock Price | \$28.15 | Market Information - December 17, 2014 |
| Book Value Per Share | \$27.10 | Most Recent Quarterly Report |
| Market Cap | \$4.10 Billion | Market Information - December 17, 2014 |
| Enterprise Value | \$6.39 Billion | Market Information - December 17, 2014 |
| Total Cash | \$1.26 Billion | Most Recent Quarterly Report |
| Total Debt | \$3.50 Billion | Most Recent Quarterly Report |
| Unfunded Pension Liability | \$838.72 Million | 2013 USSC Actuarial Variance Report |

*Information verified using Yahoo Finance on December 17, 2014

The chart above identifies the Market Cap of USS as of December 17, 2014 as approximately \$4.1 Billion dollars (a number derived from multiplying the Stock Price of \$28.15 by the number of outstanding shares), a total that includes the markets value of USSC as it is a wholly owned entity under USS. When that number is looked at in context of the \$1.9B paid by USS for USSC in 2007, the purchase price of USSC is over 45% of the company’s market valuation. This is a factor of the significant decrease (almost 70%) in USS’ stock price since the acquisition date, as seen in Chart C below.

Chart C: USS – Stock Price Performance Since USSC Acquisition



*Stock Price Chart for United States Steel Corporation (X) from July 30, 2007 - December 15, 2014 obtained from Yahoo! Finance on December 16, 2014.

The chart on the previous page visualizes the realized changing market sentiments relating to USS since its acquisition of USSC, with the height of its valuation approaching \$190 a share about a year after the acquisition, and then a steep fall associated with the global economic downturn in 2008. It is difficult to know what USS’s long term plans were for USSC at the time of the acquisition, but it can be assumed that the current financial reality for both companies wasn’t the overall goal, and that external factors have likely played a significant role in the current realized outcome.

Identified Risks and Concerns of Major Stakeholders

The current situation faced by USSC is less than ideal for the company and its parent company, USS, but is also a major concern for key stakeholders. While USSC employees, pensioners, suppliers and the City of Hamilton might not have a direct ownership stake in the company, its ongoing viability is important to its status as an employer, pension supporter, customer and contributor to the local economy, making these groups major stakeholders in the company’s operations. These major stakeholders have raised and communicated the following risks and concerns relating to the potential failure of USSC:

- It would result in hardships to current employees of USSC who would suffer job loss and might have difficulty finding similar work and remuneration;
- It would result in hardships to USSC retirees, who rely on USSC to continue to contribute to their underfunded pension plans and to provide post-retirement benefits;
- It would result in a permanent decrease in retirement incomes of USSC retirees, and that reduction would have a material impact on their health, the affordability of their current living situations and lifestyles;
- It would impact hundreds of companies supplying goods and services to USSC;
- It would have a significant impact on the City of Hamilton’s annual revenues;
- It might have a significant impact on the City of Hamilton’s program demands; and
- It might result in prolonged asset disposition process that might leave current USSC lands in the City of Hamilton unproductive for an extended period of time.

The following sections of this report will provide information and analysis to enable a greater understanding of the scale and likelihood of many of these identified risks and concerns.

USSC Pension Plan Analysis

While the employment footprint of USSC has been in decline over the past twenty years, the major legacy of its once massive operations is the large population of members and beneficiaries of its four defined benefit employee pension plans. These pension plan members, a percentage of which are active employees of USSC, have a vested interest in the continued operations of USSC due to the underfunded status of their pension plans, and the obligation of USSC to bring these plans back to being fully funded.

This section of the report utilizes information obtained from USSC Actuarial Reports for all four pension plans (as of December 31, 2013) and information provided by USW Local 1005, USW Local 8782 and the Stelco Salaried Pensioner's Organization to analyse and describe the pension plan members, the benefit provisions of the various plans, and the financial position of those plans as of December 31, 2014.

Overview of the USSC Pension Plan Members

The annual USSC Actuarial Reports, produced by USSC to meet the requirements outlined by the Financial Services Commission of Ontario for all Ontario based Defined Benefit pension plans, provide an overview of USSC pension plan members by specific plan as of December 31st of each year.

Chart D: USSC Retirement Plan Membership Overview

| USSC Retirement Plans Overview - Plan Membership and Benefit Data | | | | | |
|---|------------------------------|-------------------------------|----------------------------|-----------------------------|----------------------------------|
| | Local 1005 Hamilton Works | Local 8782 Lake Erie Works | Salaried Hamilton Works | Salaried Lake Erie Works | Combined Total All Four Plans |
| Total Plan Members | | | | | |
| Total Number of Retirees and Beneficiaries | 9,338 | 1,311 | 3,276 | 441 | 14,366 |
| Retired Members and Beneficiaries | | | | | |
| Number of Retirees and Beneficiaries | 8,451 | 763 | 3,021 | 350 | 12,585 |
| Number Receiving Bridge Pensions | 2,370 | 506 | 681 | 132 | 3,689 |
| Per Capita Annual Pensions | \$16,355 | \$18,374 | \$22,897 | \$28,374 | \$18,382 |
| Per Capita Annual Bridge Pensions | \$10,302 | \$10,233 | \$8,884 | \$9,220 | \$9,992 |
| Average Age | 72 | 62 | 74 | 67 | 72 |
| Percentage of Retirees Under 65 Years Old | 28% | 66% | 23% | 38% | 29% |

*Based on Information in 2013 Actuarial Reports - Dated December 31, 2013

The chart above provides information on all four main pension plans representing the salaried and bargaining groups of both Hamilton Works and Lake Erie Works. While the pension plan members of the four separate pension plans are often associated or referenced as a single group, the chart above highlights some key differences of each group's demographics and benefits, which includes the following:

- Hamilton Bargaining Plan (Local 1005) members represent over 65% of all USSC pension plan members, and have the lowest annual per capita pensions of \$16,355;
- The Lake Erie Salaried Plan annual per capita pensions are approximately \$12,000 higher than the Hamilton Bargaining Plan (Local 1005) annual per capita pensions;
- Hamilton Salaried Plan members have the highest average age of 74 years, and the lowest percentage of retirees receiving Bridge Pensions; and
- Lake Erie Bargaining (Local 8782) members and Lake Erie Salaried members have a lower average age and a higher per capita annual pension than the Hamilton Bargaining and Salaried members.

The City of Hamilton was able to obtain mailing address information from the three main groups representing the four USSC pension plan members to complement the information provided by the USSC Actuarial reports. The information provided by USW Local 1005, USW Local 8782 and the SSPO provided the city of residence for 11,699 USSC pensioners, with the top ten cities by number USSC pensioners identified in Chart E below.

Chart E: USSC Pensioners - City of Residence

| City | Number of USSC Pensioners with Mailing Address in City | % of Total Addresses Obtained | Estimated Total Number of USSC Pensioners in City (if all addresses were obtained) |
|------------------------------|--|-------------------------------|--|
| <i>City of Hamilton</i> | 7,050 | 60.3% | 8,657 |
| Burlington | 841 | 7.2% | 1,033 |
| Grimsby | 298 | 2.5% | 366 |
| Simcoe | 268 | 2.3% | 329 |
| Caledonia | 208 | 1.8% | 255 |
| Port Dover | 191 | 1.6% | 235 |
| Welland | 177 | 1.5% | 217 |
| Brantford | 142 | 1.2% | 174 |
| St Catharines | 134 | 1.1% | 165 |
| Dunnville | 119 | 1.0% | 146 |
| Other Cities/Towns | 2,271 | 19.4% | 2,789 |
| Total Addresses Obtained | 11,699 | | 14,366 |
| Total Addresses Not Obtained | 2,667 | | |

* Pensioner address information provided by USW Local 1005, USW Local 8782 and SSPO
** Information identifying total number of pensioners obtained from USSC 2013 Actuarial Report

The chart above lists the top 10 cities/towns by number of USSC pensioners, and provides an estimate on the actual number of pensioner residents, if address information was obtained for all 14,366 members. Key findings of the chart include:

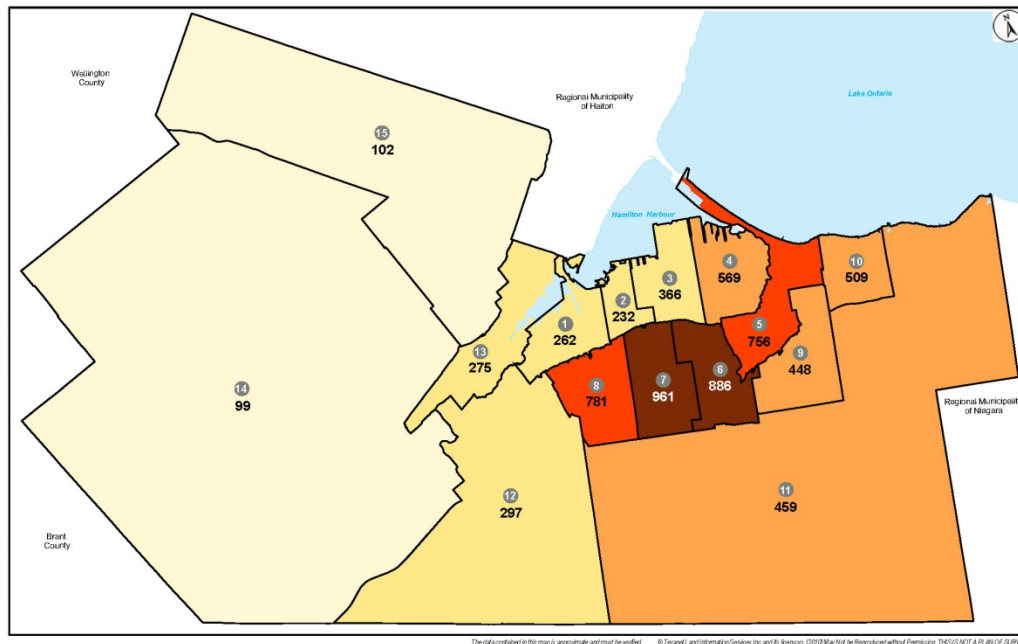
- Over 7,000 USSC pensioners reside in the City of Hamilton, representing over 60% of the identified USSC pensioners;
- The other nine cities and towns with large USSC pension populations are within a close proximity of Hamilton; and
- If the distribution of the 11,699 identified pensioners is representative of the total population of USSC pensioners, then the City of Hamilton could be the city of residence for over 8,600 pensioners.

USSC Pension Plan Members Living in Hamilton

The information that the City obtained relating to the 7,050 USSC pensioners with Hamilton mailing addresses provided the opportunity to complete an analysis on the concentration of these pensioners within the City of Hamilton’s current ward boundaries and to compare their distribution with current demographics of the City’s total population.

By identifying the ward associated with each Hamilton address associated with the USSC pensioner, we are able to map the total population associated to each city ward. The distribution of known USSC pensioners by city ward as seen in Map A on the following page shows the largest populations of USSC pensioners residing in Wards 7 (961 pensioners) and Ward 6 (886 pensioners) highlighted in dark red, with Ward 5 and Ward 8 each having over 750 USSC pensioners.

Map A: Distribution of Identified USSC Pensioners with City of Hamilton Addresses by Ward



While the map above identifies specific geographic areas where USSC pensioners are clustered, a comparison of the ward totals with city wide demographics for the entire city can highlight the level of concentration of the USSC pensioner population within the city. Using the most recent city wide population statistics obtained from the 2011 National Household Survey, the ward population totals are compared against the 2011 population totals for the City of Hamilton, and the population of Hamilton residents who are 60+ in Chart F below.

Chart F: Concentration of USSC Pensioners with City of Hamilton Addresses by Age and Ward

| | CITY WARDS | | | | | | | | | | | | | | | Totals |
|---|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
| 2011 Population City of Hamilton | 29,510 | 37,960 | 39,085 | 34,970 | 38,760 | 40,295 | 60,280 | 49,640 | 27,150 | 24,270 | 36,125 | 34,730 | 24,900 | 16,315 | 25,940 | 519,930 |
| USSC Pensioners in the City of Hamilton | 262 | 232 | 366 | 569 | 756 | 886 | 961 | 781 | 448 | 509 | 459 | 297 | 275 | 99 | 102 | 7,050 |
| % of USSC Pensioners in the City of Hamilton | 0.89% | 0.61% | 0.94% | 1.63% | 1.95% | 2.20% | 1.59% | 1.57% | 1.65% | 2.10% | 1.27% | 0.86% | 1.10% | 0.61% | 0.39% | 1.36% |
| City of Hamilton Population 60+ Years Old | 6,350 | 7,470 | 6,900 | 6,865 | 9,765 | 9,400 | 11,985 | 11,615 | 5,235 | 6,400 | 7,410 | 7,385 | 7,130 | 4,010 | 4,450 | 112,370 |
| % of USSC Pensioners in the City of Hamilton (60+ Population) | 4.13% | 3.11% | 5.30% | 8.29% | 7.74% | 9.43% | 8.02% | 6.72% | 8.56% | 7.95% | 6.19% | 4.02% | 3.86% | 2.47% | 2.29% | 6.27% |

*City of Hamilton Population Statistics obtained from the 2011 National Household Survey (Canada)

**Based on USSC Pensioner information supplied by USW Local 1005, USW Local 8782 and the Stelco Salaried Pensioners Organization

The chart above provides a number of city-wide and ward specific insights into the concentration of USSC pensioners in the City of Hamilton, including:

- Approximately 2% of the total population of Wards 5, 6 and 10 are current USSC pensioners;
- Approximately 1.4% (1 in 72) of Hamilton’s total population are known USSC pensioners;
- Approximately 6.3% (1 in 16) of Hamilton’s population of 60+ years old are known USSC pensioners; and
- The USSC pensioner population represents a large and significant segment in each Hamilton ward.

Overview of the USSC Pension Plan Provisions

Over the course of their employment at Stelco and USSC, a component USSC pension plan member's compensation package was the inclusion in a Defined Benefits pension plan, which promised post-retirement benefits in the future and varied in composition between each of the four USSC pension plans. Over the life of the pension plans, the defined benefits for each of the four pension plans have been subject to changes based on the outcome of negotiations between the employee groups and the employer.

The USSC Actuarial Reports as of December 31, 2013 provide an overview of the pension plan benefits for the Bargaining Groups (USW Local 1005 and USW Local 8782) and the Salaried Groups (Hamilton Salaried Plan and Lake Erie Salaried Group), which are detailed below in Chart G, based on the four main categories.

Chart G: Overview of USSC Retirement Plan Benefits

| Category | Bargaining Group | Salaried Group |
|---|---|--|
| Pension Benefits | <ul style="list-style-type: none"> • A basic pension of \$58.00 per month for each year of credited service, not exceeding 40 years (equals a monthly maximum of \$2,320 before taxes); and • A supplemental pension of \$30.00 per month for each year of credited service not exceeding 30 years, reduced by the amount of the member's Old Age Security Pension and Canada/Quebec Pension Plan benefits as determined at retirement. | <ul style="list-style-type: none"> • One twelfth of 1.00% of highest five year average earnings up to the government pensionable earnings at retirement date plus one twelfth of 1.85% of highest five year average earnings over the government pensionable earnings for each year of available service; and • 1% of the value, as at June 30, 1987, of the member's normal contributions made to the Plan; and If the member has completed 30 years of credited service, \$32 per month per year of credited service (not exceeding 40 years) in excess of available service For periods on and after September 1, 2006, earnings are defined as the member's base Salary • For periods prior to September 1, 2006, earnings are defined as the member's total remuneration paid excluding non-cash benefits and certain lump sums. The earnings used in the calculation of the highest five year average need not be consecutive. • Minimum pension benefits match those from the Bargaining group plus 1.75% of the member's required contributions. |
| Health Benefits | <ul style="list-style-type: none"> • Benefits mirror what is received by U.S. Steel Canada workers, which include prescription drugs, hospital accommodation, medical items, vision, dental and professional services. | <ul style="list-style-type: none"> • Benefits mirror what is received by U.S. Steel Canada workers, which include prescription drugs, hospital accommodation, medical items, vision, dental and professional services. |
| Death Benefits | <ul style="list-style-type: none"> • Provisions for transfer of pension benefits to spouse or beneficiary. | <ul style="list-style-type: none"> • Provisions for transfer of pension benefits to spouse or beneficiary. |
| Cost of Living Adjustment (COLA) | <ul style="list-style-type: none"> • The current collective bargaining agreement provides no COLA adjustments to retiree pensions in the future meaning that inflation will erode the purchasing power of this segment of their retirement income. | <ul style="list-style-type: none"> • The current collective bargaining agreement provides no COLA adjustments to retiree pensions in the future meaning that inflation will erode the purchasing power of this segment of their retirement income. |

*Based on Information in 2013 Actuarial Reports - Dated December 31, 2013

In the chart above, it can be seen that the two main pension benefit categories are very similar, with the one major difference being how monthly Pension Benefits are calculated. Key similarities and differences and their relevance to Hamilton based USSC pensioners are detailed below:

- The calculation of monthly Pension Benefits (pension income) has been simplified for the Bargaining Group, with a fixed dollar amount (\$58) allocated per month for each year of service, up to 40 years;
- The calculation of monthly Pension Benefits (pension income) uses a more complicated formula based on a percentage of an employee's best five years of income and number of years of service;
- The different approaches to calculating monthly pension income has resulted in significantly different average annual pensions between the Bargaining Group and the Salaried Group;
- Health Benefits for all USSC pensioners mirror what is received by USSC employees;
- USSC pensioners have the ability to transfer pension benefits to a spouse in the event of Death;
- USSC pensioners are without a Cost of Living Adjustment provision, and their current pensions will not be adjusted for inflation in future years, decreasing the future purchasing power of that income.

Analysis of Pension Fund Finances

The funded status of USSC's four main pension plans is a topic of significant interest to all stakeholders of the current CCAA process that USSC is currently navigating. As of December 2014, efforts are underway to enable USSC and its many creditors to obtain a better understanding of the current financial status of the four main Defined Benefit Pension Plans. The most current information available regarding the financial position of the pension funds is found in the 2013 USSC Actuarial Reports. In Chart H, an overview of each of the four main pension plans, and a combined number for all four plans is provided.

Chart H: Financial Overview of USSC Pension Funds

| USSC Retirement Plans - Financial Overview | | | | | |
|---|------------------------------|-------------------------------|----------------------------|-----------------------------|----------------------------------|
| | Local 1005 Hamilton Works | Local 8782 Lake Erie Works | Salaried Hamilton Works | Salaried Lake Erie Works | Combined Total All Four Plans |
| General Plan Information | | | | | |
| Total Members | 9,338 | 1,311 | 3,276 | 441 | 14,366 |
| Retired Members and Beneficiaries to Active Members | 15.6 : 1 | 1.8 : 1 | 15.7 : 1 | 4.4 : 1 | 10.1 : 1 |
| Annual Pensions | \$138,216,000 | \$14,019,000 | \$69,172,000 | \$9,931,000 | \$231,338,000 |
| Per Capita Annual Pensions | \$16,355 | \$18,374 | \$22,897 | \$28,374 | \$18,382 |
| Funding | | | | | |
| Market Value of Solvency Assets | \$1,579,362,000 | \$237,346,000 | \$893,257,000 | \$155,640,000 | \$2,865,605,000 |
| Solvency Liability | \$2,152,362,000 | \$354,861,000 | \$1,009,809,000 | \$187,295,000 | \$3,704,327,000 |
| Solvency Excess/(Deficiency) | -\$573,000,000 | -\$117,515,000 | -\$116,552,000 | -\$31,655,000 | -\$838,722,000 |
| % Funded - Solvency Basis | 73.4% | 66.9% | 88.5% | 83.1% | 77.4% |
| Solvency Deficiency per Plan Member | \$61,362 | \$89,638 | \$35,578 | \$71,780 | \$58,382 |
| Solvency Deficiency per Member / Average Annual Pension | 3.8 | 4.9 | 1.6 | 2.5 | 3.2 |
| Funding Requirements for 2014 | | | | | |
| Total Annual Minimum Contribution | \$48,577,000 | \$10,033,000 | \$9,737,000 | \$2,646,000 | \$70,993,000 |
| PBGF Assessment (capped at \$300 per Ontario member) | \$2,712,000 | \$393,000 | \$661,000 | \$132,000 | \$3,898,000 |

*Based on 2013 Actuarial Reports - Dated December 31, 2013

In addition to providing a high level overview of the annual pension contributions to pensioners by the four pension plans and a breakdown of the estimated value of pension assets and liabilities, the chart above identifies a number of key points:

- The four pension plans provide USSC retirees with over \$231 million in total pension income annually;
- There is a significant difference in the funding levels of the four main pension plans, ranging from a low of 67% for the Lake Erie Bargaining Group (Local 8782) to a high of 88% for the Hamilton Salaried Plan;
- The funding level of the two Bargaining Groups is in significantly worse condition than the funding level of the two Salaried Groups;
- The Solvency Deficiency for Hamilton Bargaining Plan pensioners is over \$61,000 per member, which is the equivalent to almost four years of the average pension income;
- The Solvency Deficiency for Hamilton Salaried Plan pensioners is over \$71,000 per member, which is the equivalent to more than two years of the average pension income;
- The Total Annual Minimum Contribution that USSC is required to make to all four pension plans in 2014 is almost \$71 million dollars;
- The annual pensions of the retired pension plan members are not currently impacted by the funded status of the pension plans, the liability of that funding deficiency falls on USSC as long as it is operating and is deferred into future years; and
- Almost \$4 million in PBGF Assessment premiums will be paid to the province of Ontario in 2014.

Analysis of Financial Impact of Pension Fund Finances on Pensioners

The USSC pension plan members are major stakeholders in the viability of USSC, as they rely on USSC to continue making enhanced pension plan contributions to bring the USSC pension plans back to a fully funded position. The failure of USSC would have consequences to all USSC pension plan members, as identified in Chart I below.

Chart I: Projected Financial Impact of USSC Business Failure on the Pension Fund and Pensioners

| USSC Retirement Plans - Financial Impact of Pension Fund Finances on U.S. Steel Canada Pensioners | | | | | |
|---|------------------------------|-------------------------------|----------------------------|-----------------------------|----------------------------------|
| | Local 1005 Hamilton Works | Local 8782 Lake Erie Works | Salaried Hamilton Works | Salaried Lake Erie Works | Combined Total All Four Plans |
| Plan Membership Data | | | | | |
| Total Members | 9,338 | 1,311 | 3,276 | 441 | 14,366 |
| Retired Members and Beneficiaries | 8,451 | 763 | 3,021 | 350 | 12,585 |
| % of Members who are Retired Members or Beneficiaries | 90.5% | 58.2% | 92.2% | 79.4% | 87.6% |
| Annual Pensions | \$138,216,000 | \$14,019,000 | \$69,172,000 | \$9,931,000 | \$231,338,000 |
| Per Capita Annual Pensions | \$16,355 | \$18,374 | \$22,897 | \$28,374 | \$18,382 |
| Funding | | | | | |
| Total Solvency Excess/(Deficiency) | -\$573,000,000 | -\$117,515,000 | -\$116,552,000 | -\$31,655,000 | -\$838,722,000 |
| % Funded - Solvency Basis | 73.4% | 66.9% | 88.5% | 83.1% | 77.4% |
| Projected Financial Impact on Pension Plan Member | | | | | |
| Total Solvency Excess/(Deficiency) | -\$61,362 | -\$89,638 | -\$35,578 | -\$71,780 | -\$58,382 |
| Adjusted Per Capita Annual Pension (by % Funded) | \$12,001 | \$12,289 | \$20,254 | \$23,579 | \$14,220 |
| Annual Income Change (if adjusted by % Funded) | -\$4,354 | -\$6,085 | -\$2,643 | -\$4,796 | -\$4,162 |
| Monthly Income Change (if adjusted by % Funded) | -\$363 | -\$507 | -\$220 | -\$400 | -\$347 |

*Based on 2013 Actuarial Reports - Dated December 31, 2013

In the chart above, the current pension fund finances are forecasted to impact the USSC pensioners in the following way if the pension funds were wound up as of December 31, 2013 and no additional support was provided:

- Over 90% of both the Hamilton Bargaining Plan (Local 1005) and the Hamilton Salaried Plan members are currently retired and receiving pension benefits from USSC;
- The Hamilton Bargaining Plan (Local 1005) plan could only afford to provide 73.4% of the expected annual pension to members, resulting in an average annual reduction of \$4,354, or \$363 a month; and
- The Hamilton Salaried Plan could only afford to provide 88.5% of the expected annual pension to members, resulting in an average annual reduction of \$2,643, or \$220 a month.

Pension Fund Finances and USS Finances

The unfunded pension liability of the USSC pension plans has been identified as being approximately \$837 million as of December 31, 2013, which is a significantly financial liability for USSC. A quick analysis of the USSC unfunded pension liability as compared to financials of USS, as seen in Chart J on the following page, provide the ability to measure the relative size of the financial liability of the pensions as a percentage of Total Cash, Market Capitalization, and Enterprise Value. The chart demonstrates the significance of the size of the USSC pension liability in the following key points:

- It would take approximately 67% of USS total cash to bring the USSC pension to a fully funded position (as of December 31, 2013); and
- The unfunded pension liability of USSC pensions is equal to approximately one fifth (20%) of the market cap of USS, and approximately one eighth of (13%) of the enterprise value or book value of USS.

Chart J: USS Finances and Pension Liability Analysis

| Indicator | Value | Date Retrieved and Source |
|--|------------------|--|
| Market Cap | \$4.10 Billion | Market Information - December 17, 2014 |
| Enterprise Value | \$6.39 Billion | Market Information - December 17, 2014 |
| Total Cash | \$1.26 Billion | Most Recent Quarterly Report |
| Unfunded Pension Liability | \$838.72 Million | 2013 USSC Actuarial Variance Report |
| Unfunded Pension Liability (% of Total Cash) | 66.6% | |
| Unfunded Pension Liability (% of Market Cap) | 20.5% | |
| Unfunded Pension Liability (% of Enterprise Value) | 13.1% | |

*Information verified using Yahoo Finance on December 17, 2014

Pension Policy in Ontario and the Pension Benefits Guarantee Fund (PBGF)

In Ontario, pension policy and oversight is impacted by two major pieces of legislation:

- *Pension Benefits Act and Regulations (Ontario)*
Financial Services Commission of Ontario (FSCO) is the supervisory authority; and
- *Income Tax Act (Canada)*
Canada Revenue Agency, Registered Plans Division, is the supervisory authority.

As a complement to existing pension legislation and policy, the Ontario government established the PBGF to provide protection to Ontario members of private sector Defined Benefit pensions plans if their retirement pensions were impacted due to severe underfunding or employer insolvency. Below is a high level overview of the PBGF:

- Covers over 1,500 defined benefit plans in Ontario;
- Is unique and exclusive to Ontario (no other province in Canada has a fund like this);
- The regulations also prescribe an assessment payable into the Fund by plan registrants, as the Fund is intended to be self-financing;
- The total liability of the Fund to guarantee pension benefits is limited to the assets of the Fund including any loans or grants received from the Province;
- If the assets of the Fund are insufficient to meet payments for claims, the Lieutenant Governor in Council may authorize the Minister of Finance of Ontario to make loans or grants on such terms and conditions as the Lieutenant Governor in Council directs;
- The investments of the Funds are managed by the Ontario Financing Authority; and
- The Fund can provide benefits up to \$1,000 per month for members who meet age and service criteria while employed in Ontario.

The PBGF can mitigate the impact on underfunded pension plans if the below three conditions are met:

1. The Ontario based underfunded pension plan is wound up;
2. The Superintendent of Pensions (Lester Wong) makes an order that the PBGF applies; and
3. The PBGF has sufficient funds to make the required payments.

It is important to note that the PBGF is significantly underfunded as of the last official reported balance, and would be unable to provide full support in the event of a large defined pension failure without government intervention.

Funding Status of the PBGF and its Impact on USSC Pension Plan Members

As identified in the previous section of the report, the Province of Ontario is the creator the PBGF, and the Ontario Financing Authority manages the investments of the fund on behalf of the Province. As the administrators of the PBGF, the Financial Services Commission of Ontario (FSCO) maintains a publicly accessible website that provides information on the PBGF, including annual financial statements as of the end of the province’s fiscal year.

As of December 31, 2014 the most recent available financial statement for the PBGF on the FSCO website is for the fiscal year ending March 31, 2012. The most recent financial statements provide the following information:

- The PBGF fund was in a surplus position as of March 31, 2012, with approximately \$76.2 million in assets;
- The PBGF fund was in a deficit position as of March 31, 2011, with \$6.1 million in liabilities;
- The PBGF fund had listed Claims Payable of approximately \$109.3 million in the 2011-12 fiscal year, and Claims Payable of \$521.9 million in the 2010-11 fiscal year, according to the balance sheet; and
- The financial statement included a note on “Measures to Sustain the Fund” that details the significant changes to the PBGF as of January 1, 2012, and provided the assumption that “increased revenues resulting from these changes should enhance the sustainability of the Fund”.

The above mentioned changes that came into effect on January 1, 2012 significantly increased the annual contributions being made. The impact of the revised assessment fees can be seen in Chart K below.

Chart K: Annual PBGF Assessment for 2014 by USSC Pension Plan

| USSC PBGF Assessment for 2014 | |
|---------------------------------------|---|
| USSC Pension Plan | Total Annual PBGF Assessment Fee |
| Bargaining Employees - USW Local 1005 | \$2,928,960 |
| Bargaining Employees - USW Local 8782 | \$424,764 |
| Salaried Employees - Hamilton Works | \$713,808 |
| Salaried Employees - Lake Erie Works | \$142,884 |
| Total - All Four Plans | \$4,210,416 |

*Based on Information in 2013 Actuarial Reports - Dated December 31, 2013

The chart above identifies the assessment fees for the USSC pension plans for 2014, and highlights the following:

- The pension plan for USW Local 1005, the largest of the four USSC pension plans as measured by total members, requires the payment of almost \$3 million in annual PBGF premiums; and
- Over \$4.2 million cumulatively (all four pension plans) will be paid to the PBGF in 2014 to provide a form of insurance for USSC pensioners against the impact of pension fund shortfalls on wound-up pension plans.

The analysis of the PBGF financials and the USSC PBGF contributions provide the following insight:

- The PBGF financial statements reveal significant variances to its annual balance sheet totals over the past couple of reporting years, and a recent history of large annual claims on the fund that were accepted;
- The PBGF has received millions of dollars in assessment fees relating to the four USSC pension plans;
- The resulting liability to the PBGF for the 2015 fiscal year if the USSC pension plans were wound-up underfunded at 75% funded status would be approximately \$42 million (based on 14,000 pensioners); and
- The total liability for 2015 and all future years would likely be hundreds of millions of dollars, a projected number that is significantly higher (likely multiple times higher) than the most recently available PBGF balance of \$76.2 million (March 31, 2012).

Potential Impact of the PBGF on Underfunded Pensions

If an Ontario based Defined Benefit pension plan was to fail, and the three conditions identified in a previous section of this report were met, then the PBGF would mitigate some income loss to members by providing:

- Individuals whose pension is \$1,000 per month or less would receive their full pension from a combination of plan assets and the PBGF; or
- Individuals whose pension is greater than \$1,000 per month will receive \$1,000 plus the funded portion of their benefit in excess of \$1,000 per month.

A high level example of how the calculation would be completed with a theoretical 70% funded pension and under a number of different monthly pension payment scenarios, can be seen in Chart L below.

Chart L: Impact of Underfunded Pensions and the PBGF on Monthly Pension Payments

| Impact of Underfunded Pensions and PBGF on Monthly Pension Payments | | | | | | |
|---|------------------------------|------------------|------------------------------------|------------------|-----------------|----------------|
| Initial Monthly Pension Payment | Pension Payment (70% Funded) | Loss before PBGF | PBGF Payment (30% of first \$1000) | Total after PBGF | Loss after PBGF | Final % Funded |
| \$500 | \$350 | -\$150 | \$150 | \$500 | \$0 | 100.0% |
| \$750 | \$525 | -\$225 | \$225 | \$750 | \$0 | 100.0% |
| \$1,000 | \$700 | -\$300 | \$300 | \$1,000 | \$0 | 100.0% |
| \$1,250 | \$875 | -\$375 | \$300 | \$1,175 | -\$75 | 94.0% |
| \$1,500 | \$1,050 | -\$450 | \$300 | \$1,350 | -\$150 | 90.0% |
| \$1,750 | \$1,225 | -\$525 | \$300 | \$1,525 | -\$225 | 87.1% |
| \$2,000 | \$1,400 | -\$600 | \$300 | \$1,700 | -\$300 | 85.0% |
| \$2,250 | \$1,575 | -\$675 | \$300 | \$1,875 | -\$375 | 83.3% |
| \$2,500 | \$1,750 | -\$750 | \$300 | \$2,050 | -\$450 | 82.0% |
| \$2,750 | \$1,925 | -\$825 | \$300 | \$2,225 | -\$525 | 80.9% |
| \$3,000 | \$2,100 | -\$900 | \$300 | \$2,400 | -\$600 | 80.0% |

In the chart above, the projected impact of the initial decrease and the following PBGF addition to pensioners at different monthly income levels can be seen, highlighting the key facts below:

- The implementation of an initial reduction as a result of a wound-up pension that is underfunded causes a reduction to all pension plan members that is equally weighted as a percentage of each member's pension;
- The results of the initial reduction is a significant difference in actual dollar losses between pension members as those with more initial monthly pension income stand to lose more dollars, all else equal;
- The implementation of the PBGF payment provides pension members with a payment equal to what their pension is underfunded by (100% - 70% = 30%) for the first \$1,000 of their monthly pension;
- For those members expecting a monthly pension of \$1,000 or less can expect the PBGF to cover all potential loses, and to bring their pension back to 100% funded;
- For members expecting a monthly pension greater than \$1,000, the PBGF payment is maxed out at \$300;
- As pension members' expected monthly pension payment increases, the impact of the PBGF payment on the Final % Funded decreases.

A more comprehensive overview of the impact of the PBGF based on a number of different scenarios relevant to the current situation being faced by USSC pensioners can be found in Appendix B: PBGF Payment Analysis.

Potential Impacts of USSC Bankruptcy on Employees and Pensioners

With USSC currently under CCAA protection and the company stating their existing business liabilities far exceed existing business assets, there is a serious risk of business failure in the near future. As USSC continues to work with its many creditors to determine if there is a way to emerge successfully from CCAA as a viable company, the current employees and company pension plan members worry about the consequences and impacts of bankruptcy.

In order to report on the potential impacts of a USSC bankruptcy on USSC pensioners, Hamilton's Public Health Department completed a literature review on impacts associated with decreases in pension income. These impacts are integrated and highlighted in the sections below. In summary, retirees who lose their pension will be negatively impacted in many ways:

- Economic status
- Mental health
- Physical health and mortality
- Housing
- Access to health care and nutrition
- Socialization

"...Higher social and economic status is associated with better health. In fact, these two factors seem to be the most important determinants of health" (Public Health Agency of Canada [PHAC], 2013).

The health of retirees is impacted negatively when there are unforeseen or unplanned variables, such as income loss, that arise throughout their retirement. Greater change causes greater stress. Financial difficulties, including the loss of resources that cannot be replaced, are a serious stressor for seniors (Tucker-Seeley, Li, Subramanian & Sorensen, 2009; van Solinge, 2007).

Potential Impacts to Income and Expenditures on Employees and Pensioners

The closure of USSC would have a significant impact to the current employees and to the company pension plan members, two groups that are not mutually exclusive. There is limited data available on the composition and compensation of the current group of USSC employees, but the worst case scenario of business closure and site decommissioning would be:

- All current employees would be left without a job upon the finalization of site decommissioning, with a majority of employees losing employment immediately upon the decision to cease business operations;
- The requirement of those unemployed individuals to rely on employment insurance while they looked for employment, as there would be minimal severance available after creditors' claims on existing assets;
- The assumption that for many employees, there would be an impact on income and expenditure in the short-term, as employment insurance payments would likely not match current wages; and
- The assumption that for some employees, there would be an impact on income and expenditure in the long-term, as there might be difficulty finding similar types employment at similar levels of compensation.

The USSC Actuarial Reports provide us some insight into the monthly incomes of the four pension plan member groups, and enable the calculation of forecasted impacts on pension incomes in the event of business failure. Using the location information provided by Local 1005, Local 8782 and the SSPO and actuarial data, the potential impact of that business failure is forecasted for Hamilton residents, and can be found in Chart M and Chart N on the following page.

Chart M: USSC Employees - Schedule of Active Membership for All Four Pension Plans

| USSC - Schedule of Active Membership Data - All Four Pension Plans | | | | | | | | | |
|--|------------------|--------------|--------------|-------------|-------------|--------------|--------------|---------------|---------------|
| Age of Employee | Years of Service | | | | | | | Total | % of Total |
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | | |
| <20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-24 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2% |
| 25-29 | 11 | 22 | 2 | 0 | 0 | 0 | 0 | 35 | 2.8% |
| 30-34 | 15 | 65 | 12 | 0 | 0 | 0 | 0 | 92 | 7.4% |
| 35-39 | 9 | 54 | 44 | 3 | 0 | 0 | 0 | 110 | 8.9% |
| 40-44 | 7 | 43 | 49 | 12 | 8 | 0 | 0 | 119 | 9.6% |
| 45-49 | 26 | 36 | 44 | 7 | 35 | 8 | 2 | 158 | 12.7% |
| 50-54 | 9 | 46 | 37 | 11 | 17 | 89 | 115 | 324 | 26.1% |
| 55-59 | 3 | 19 | 27 | 3 | 12 | 52 | 216 | 332 | 26.8% |
| 60-64 | 0 | 6 | 9 | 1 | 2 | 6 | 37 | 61 | 4.9% |
| 65+ | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 7 | 0.6% |
| Total | 82 | 291 | 224 | 37 | 77 | 155 | 374 | 1240 | 100.0% |
| % of Total | 6.6% | 23.5% | 18.1% | 3.0% | 6.2% | 12.5% | 30.2% | 100.0% | |

*Based on Information in 2013 Actuarial Reports - Dated December 31, 2013

The analysis performed in Chart M provides a great deal of information about the identified 1240 USSC pension plan members who were actively working at USSC as of December 31, 2013, including:

- Almost 60% of the active USSC employees who were enrolled in one of the four pension plans as of December 31, 2013 are 50 years old or older;
- More than 30% of the active USSC employees had over 30 years of service as of December 31, 2013; and
- The USSC pension plans have been closed to new entrants for a number of years (since August 1, 1997 for the Salaried Groups and since October 15, 2011 for the Bargaining Groups), meaning the large number of current employees who have been hired since and are not plan members are not represented in this chart.

Chart N: Forecast of Impact on Income of USSC Retirees with Hamilton Mailing Addresses

| US Steel Canada Pensioners - Analysis of Pension Incomes of Retirees and Beneficiaries (With City of Hamilton Mailing Addresses) | | | | |
|--|------------------------------|-------------------------------|-----------------------------|--|
| | Local 1005 Hamilton Works | Local 8782 Lake Erie Works | SSPO Both Salaried Plans | Combined Total / Average All Four Plans |
| Number of Retirees and Beneficiaries | 8,451 | 763 | 3,371 | 12,585 |
| Retirees and Beneficiaries in Hamilton | 5,223 | 78 | 1,749 | 7,050 |
| % of Current Retirees and Beneficiaries living in the City of Hamilton | 61.8% | 10.2% | 51.9% | 56.0% |
| Current Per Capita Monthly Pensions (as of Dec. 31, 2013) | \$1,363 | \$1,531 | \$1,955 | \$1,532 |
| Current Per Capita Annual Pensions (as of Dec. 31, 2013) | \$16,355 | \$18,374 | \$23,466 | \$18,382 |
| Estimated Total Annual Pension Income (Retirees in Hamilton) | \$85,422,165 | \$1,433,172 | \$41,041,438 | \$127,896,775 |
| Pension Funding Level - % Funded (Solvency Basis - as of Dec. 31, 2013) | 73.4% | 66.9% | 87.6% | 76.8% |
| Per Capita Monthly Pensions (Adjusted for % Funded) | \$1,000 | \$1,024 | \$1,713 | \$1,193 |
| Per Capita Annual Pensions (Adjusted for % Funded) | \$12,001 | \$12,289 | \$20,561 | \$14,311 |
| Adjusted Total Annual Pension Income (Retirees in Hamilton) | \$62,681,148 | \$958,566 | \$35,960,508 | \$99,600,222 |
| Total Pension Income Change (Retirees in Hamilton - Adjusted for % Funded) | -\$22,741,017 | -\$474,606 | -\$5,080,930 | -\$28,296,553 |
| Estimated Monthly Impact of PBGF (if applicable) | \$266 | \$331 | \$124 | \$232 |
| Per Capital Monthly Pension (Adjusted for % Funded and PBGF) | \$1,266 | \$1,355 | \$1,837 | \$1,425 |
| Per Capital Annual Pension (Adjusted for % Funded and PBGF) | \$15,196 | \$16,263 | \$22,046 | \$17,095 |
| Total Annual Impact of PBGF on Hamilton Retirees (if Applicable) | \$16,685,552 | \$309,964 | \$2,598,314 | \$19,593,830 |
| Revised Total Pension Income Change (Retirees in Hamilton - after PBGF) | -\$6,055,465 | -\$164,642 | -\$2,482,616 | -\$8,702,723 |
| Adjusted Total Annual Pension Income (Retirees in Hamilton - after PBGF) | \$79,366,700 | \$1,268,530 | \$38,558,822 | \$119,194,052 |
| Effective Pension Funding Level - % Funded (Adjusted for PBGF Payments) | 92.9% | 88.5% | 94.0% | 92.9% |

*Based on Information in 2013 Actuarial Reports - Dated December 31, 2013

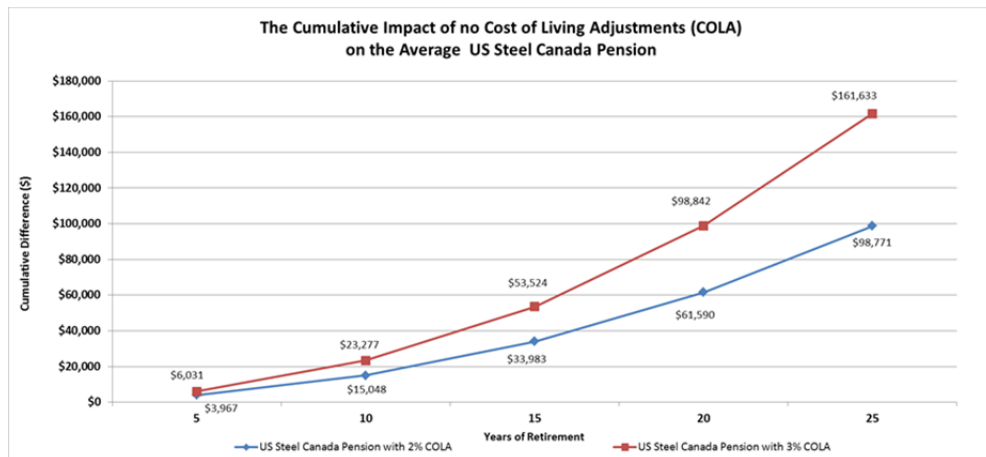
** Pensioner address information provided by USW Local 1005, USW Local 8782 and SSPO

The analysis performed in Chart N provides a great deal of information about the identified 7,050 USSC pension plan members who have mailing addresses in the City of Hamilton, including:

- The total pension income for all 7,050 pensioners is estimated to be approximately \$127.9 million annually;
- The impact of adjusting the annual forecast for all 7,050 pensioners to factor in the unfunded pension liabilities of the four pension plans is estimated to be total decrease of \$28.2 million annually;
- Adjusting the revised annual forecast to factor in PBGF payments would reduce the estimated annual \$28.2 million reduction in pensions to approximately \$8.7 million (\$19.6 million dollar PBGF related increase); and
- The successful application of full PBGF funding for the 7,050 USSC pensioners who have Hamilton mailing addresses is estimated to raise the average effective pension funding level from 76.8% to 92.9% (a 16.1 point increase).

In any scenario, there will be a material impact to the future incomes of the current USSC pension plan members based on the funded status of the four pension plans, and that impact will result in the change of expenditure habits of those impacted pensioners. The impact of a decreased pension income is compounded for USSC pensioners when combined with concessions that pension plan members accepted regarding the removal of Cost of Living Adjustments (COLA). In Chart O below, the cumulative total of forgone income is outlined, based on a COLA of both 2% (inflation target) and 3%.

Chart O: Cumulative Impact of no COLA on Average USSC Pension Income



In Chart P below, the impact of that forgone income is estimated across the entire population of 7,050 pensioners with Hamilton mailing addresses. The absence of a COLA has a significant financial impact on USSC pensioners. The projected impact of not having a 2% COLA for an individual over 25 years is a loss of \$100,000, and the estimated cumulative loss of income for the 7,050 Hamilton pensioners over 25 years is almost \$700 million.

Chart P: Cumulative Impact of no COLA on USSC Pension Income and Hamilton USSC Pensioners

| Pension Scenarios | Cumulative Pension Income Received After 'X' Years of Retirement | | | | | | |
|---|--|---------------------|----------------------|----------------------|----------------------|------------------------|------------------------|
| | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| US Steel Canada Pension without COLA | \$12,876.00 | \$64,380.00 | \$128,760.00 | \$193,140.00 | \$257,520.00 | \$321,900.00 | \$386,280.00 |
| US Steel Canada Pension with 2% COLA | \$12,876.00 | \$68,347.37 | \$143,808.38 | \$227,123.44 | \$319,109.99 | \$420,670.58 | \$532,801.68 |
| Difference per Pensioner | \$0.00 | \$3,967.37 | \$15,048.38 | \$33,983.44 | \$61,589.99 | \$98,770.58 | \$146,521.68 |
| Total Difference for 7,050 Hamilton Pensioners | \$0 | \$27,969,927 | \$106,091,077 | \$239,583,230 | \$434,209,445 | \$696,332,603 | \$1,032,977,841 |
| US Steel Canada Pension without COLA | \$12,876.00 | \$64,380.00 | \$128,760.00 | \$193,140.00 | \$257,520.00 | \$321,900.00 | \$386,280.00 |
| US Steel Canada Pension with 3% COLA | \$12,876.00 | \$70,411.25 | \$152,037.18 | \$246,664.00 | \$356,362.43 | \$483,532.97 | \$630,958.48 |
| Difference per Pensioner | \$0.00 | \$6,031.25 | \$23,277.18 | \$53,524.00 | \$98,842.43 | \$161,632.97 | \$244,678.48 |
| Total Difference for 7,050 Hamilton Pensioners | \$0 | \$42,520,282 | \$164,104,100 | \$377,344,226 | \$696,839,133 | \$1,139,512,453 | \$1,724,983,314 |

*The average years of service (18.5) and benefit calculation formula for the USSC Bargaining Group were used for this analysis (as per the 2013 Actuarial Report)

There is a positive correlation between generous pension benefits and higher income in the elderly population (Norström & Palme, 2010). The “asset rich-income poor” are considered at most financial risk. The reason is that they may not qualify for financial support, yet they are not able to live comfortably (Fenge et al., 2012). Those who are at risk of losing their pensions are highly likely to fit into this category.

Older people are concerned about the security of their retirement finances, and are vigilant of situations where food, utilities and health care costs increase compared to their fixed incomes (Fenge et al., 2012). These concerns centre on the fear of debt, fear of being unable to pay bills and the potential for shame in borrowing money (Carlsson et al., 2014; Fenge et al., 2012).

It is hard for seniors to cope with sudden changes in their economic status, due to the limits of a fixed income. Unexpected or sudden changes in the economy can impact their established money management routines. The quality of life and well-being of many seniors can be adversely impacted. Difficult choices are often made by seniors living in poverty, who may have to weigh paying heating bills versus buying groceries or medications. Fuel costs will have a greater impact on those living in low-income households than those in higher income households (Fenge et al., 2012). Individuals and societies pay the price for poverty, including poverty that affects seniors (Ontario Federation of Labour [OFL], 2011).

According to some sources, the three public pensions alone are not always enough to support seniors financially.

- A study by the National Council of Welfare in 1999 confirmed that a normal OAS pension, in addition to the maximum GIS, provided rural single seniors and couples with an income very close to the poverty line, but pushed urban dwelling seniors below the poverty line (Gazso, 2005).
- In Canada, the three public pensions (Canada Pension Plan [CPP], Old Age Security [OAS], and Guaranteed Income Supplement [GIS]) that most workers depend on for their retirement income will only bring those seniors up to the poverty line (OFL, 2011).

Potential Impacts to Health and Nutrition of Pensioners

Physical and mental health, along with nutrition and access to health care are all impacted by reduced income. Some of these potential impacts are discussed below.

Potential Impact on Mental Health

The perception of personal control is linked with good health (van Solinge, 2007). Losing income during retirement can be seen by some as losing control and independence, which is a major threat, since they are unable to replace this lost income due to leaving the workforce (Segel-Karpas, Bamberger & Bacharach, 2013).

Financial strain causes stress, depression and family pressures (Russo & Linkon, n.d.). Emotional stress, due to such financial strain can lead to the following:

- Increased risk of disease;
- Faster disease progression;
- Increased risk of death;
- Increased use of the health care system;
- Poor health habits;
- Increased drug and alcohol use/abuse;
- Increased risk of suicide;
- Increased domestic violence;

- Loss of socioeconomic status;
- Loss of self-confidence;
- Self-deprivation and feeling inferior; and
- Social exclusion (Carlsson et al., 2014; Cohen & Janicki-Deverts, 2012; Russo & Linkon, n.d.).

The costs associated with participating in hobbies, other social activities, and taking vacations may be restrictive. This may lead to negative impacts on overall physical, mental and social well-being. (Fenge et al., 2012).

Close to 10% of low-income seniors experience depression, as they deal with disability and other health issues (Areán et al., 2010). Canada spent a minimum of \$14.3 billion in 2007/2008 on mental health services and supports. Among those the largest costs were for drugs, followed by hospitalization. Governments in Canada direct 7.2% of health costs towards mental health services. Non-profit mental health organizations receive municipal, provincial and federal monies to support mental health services (Institute of Health Economics [IHE], 2010).

Typical care for depression is not effective in an older population dealing with financial issues. A combination of treatments is required, which increases costs to health care systems (Areán et al., 2010; IHE, 2010).

Potential Impact on Physical Health and Mortality

- Reduced retirement income is associated with heart-related death in both men and women (Fors, Modin, Koupil, & Vågerö, 2011);
- Single men without a cash margin are at a greater risk for heart attacks (Carlsson et al., 2014);
- Men with reduced retirement income have a higher risk of death (Fors et al., 2011); and
- Living at low-income increases the risk of heart diseases and heart attacks (Carlsson et al., 2014; Tucker-Seeley et al., 2009), as well as other illnesses and death (Carlsson et al., 2014; Fors et al., 2011).

Potential Impact on Access to Health Care and Nutrition

- There is little incentive to pursue health when there is a concern about cash flow (Carlsson et al., 2014);
- Men are less likely to seek health care or to follow through with care plans (Carlsson et al., 2014);
- Lower income Canadians, which often includes seniors, are especially burdened by the increasing costs of out-of-pocket health care expenses, sometimes resulting in decreased use of health care services such as vision, dental and prescription drugs (Sanmartin, Hennessy, Lu, & Law, 2014);
- There is a link between low income and poor nutrition; poor nutrition hinders physical and cognitive functioning. This hindrance can have significant impacts on seniors (Fenge et al., 2012);
- Seniors who are not accustomed to seeking out services may not be aware of services available to them. They may also have trouble accessing those services (Fenge et al., 2012);
- Community health care systems are also impacted by loss of industry, as the demand for health care increases at a time when economic resources are decreased. (Russo & Linkon, n.d.); and
- Primary care professionals would benefit from learning of the health effects of financial stress which would assist them in identifying those at high risk for heart attacks and premature death in general (Carlsson et al., 2014).

Potential Impacts to Housing and Transportation of Pensioners

A significant decrease to monthly incomes puts the affordability of current housing and transportation choices at risk over the long term. With a large majority of the current USSC employee and pensioner population living in and around the City of Hamilton, there would likely be noticeable impacts to the business failure of USSC and any associated negative impact to USSC pensions.

Detailed information concerning the locations of USSC employees were unavailable for analysis in this report, we were able to examine those 7,050 USSC pensioners with City of Hamilton addresses and identify the distribution of these pensioners by both city ward and by housing type, as seen in Chart Q below.

Chart Q: Distribution of USSC Pensioners with Hamilton Mailing Addresses by Housing Type and Ward

| City of Hamilton - Distribution of US Steel Canada Pensioners by Housing Type and Ward | | | | | |
|--|---------------|---------------|-------------|-------------------------|---------|
| City Ward | Single Family | Semi Detached | Condominium | Other Multi-Residential | Total |
| 1 | 168 | 2 | 34 | 58 | 262 |
| 2 | 45 | 15 | 32 | 139 | 231 |
| 3 | 271 | 11 | 1 | 83 | 366 |
| 4 | 509 | 3 | 2 | 55 | 569 |
| 5 | 484 | 25 | 91 | 156 | 756 |
| 6 | 665 | 26 | 71 | 124 | 886 |
| 7 | 747 | 25 | 32 | 156 | 960 |
| 8 | 622 | 31 | 55 | 73 | 781 |
| 9 | 321 | 6 | 33 | 88 | 448 |
| 10 | 355 | 7 | 77 | 69 | 508 |
| 11 | 276 | 1 | 141 | 30 | 448 |
| 12 | 221 | 1 | 40 | 34 | 296 |
| 13 | 184 | 2 | 25 | 63 | 274 |
| 14 | 95 | 0 | 0 | 6 | 101 |
| 15 | 80 | 2 | 9 | 14 | 105 |
| Total Dwellings (USSC Pensioners) | 5,043 | 157 | 643 | 1,207 | 7,050 |
| Total Dwellings (City of Hamilton) | 125,186 | 6,679 | 23,981 | 64,856 | 220,702 |
| USSC Pensioner Total as a % of City Total | 4.0% | 2.4% | 2.7% | 1.9% | 3.2% |

* Pensioner address information provided by USW Local 1005, USW Local 8782 and SSPO
**City of Hamilton Dwelling totals as of December 31, 2013

The aggregation and analysis of housing types and distributions highlight a number of key findings, including:

- Over 70% of USSC pensioners with Hamilton addresses are associated with a detached single family home;
- Those 5,043 USSC pensioners represent 4% of all single detached homes in Hamilton (1 in 25 homes); and
- Almost 20% of USSC pensioners with Hamilton addresses live in apartments or other similar type dwellings.

Due to the property sizes and housings sizes associated with the different types of housing in the City of Hamilton, there are clear impacts on the average annual property tax associated with the different property sizes. Based on the information provided to the City of Hamilton, the average annual property tax payments for USSC pensioners living in the City of Hamilton by housing type are found in Chart R on the following page.

Chart R: Average Annual Property Tax Payments of USSC Pensioners by Housing Type

| City of Hamilton - Average Annual Property Tax Payment of US Steel Canada Pensioners by Housing Type | | | | | |
|--|---------------|---------------|-------------|-------------------------|-----------------------------|
| | Single Family | Semi Detached | Condominium | Other Multi-Residential | Average (All Housing Types) |
| Average Annual Tax (2013) | \$3,956.56 | \$2,647.28 | \$2,141.80 | \$1,872.47 | \$3,405.08 |

* Pensioner address information provided by USW Local 1005, USW Local 8782 and SSPO

** Information on tax contributions obtained from the City of Hamilton - Finance and Corporate Services Department (2014)

The information obtained from the analysis of the identified USSC pensioners likely to live in Hamilton and research on the topic area led to these conclusions relating to the potential impacts on housing and transportation:

- Home expenses associated with a detached single family home are highest amongst the identified dwelling types and decreased monthly income will increase the difficulty for USSC pensioners to carry these costs;
- A large percentage of USSC pensioners in Hamilton will have an option to accelerate the process of downsizing their housing type needs to reduce the expenses associated with their current housing type;
- A USSC pensioner transitioning from a detached single family home to a multi-residential dwelling would save over \$2,000 annually in property taxes, and would likely see decreases in housing related expenses;
- While the ownership status of those residential properties associated with USSC pensioners is unknown, there is a high degree of likeliness that existing home equity would be available to many of the USSC pensioners to help mitigate the impact of decreased pension income; and
- The costs of paying for upkeep and repairs are an ongoing concern for seniors who are worried about maintaining their homes (Fenge et al., 2012) or modifying properties for safe aging;
- Owning a house buffers people in late middle age against financial shocks and can provide security, and in turn, reduce stress (Hamoudi & Beam Dowd, 2013);
- For those at risk of losing their homes, policies and additional supports may be needed that provide for property tax abatement and mortgage loan refinancing (Cagney, Browning, Iveniuk, & English, 2014); and
- The costs of transportation might also provide incentive for USSC pensioners to transition from detached housing to multi-residential buildings, but will likely result in increased demand for public transportation.

The population of identified USSC pensioners living in the City of Hamilton make a large cumulative annual contribution to the City of Hamilton’s annual property tax revenues. Based on the address information provided by the three USSC pensioner groups, we are able to quantify the annual property tax payments from USSC pensioners living in the City of Hamilton by housing type and ward are found in Chart S on the following page.

Chart S: Average Annual Property Tax Payments of USSC Pensioners by Housing Type and Ward

| City of Hamilton - Tax Revenues from US Steel Canada Pensioners by Housing Type and Ward | | | | | |
|--|---------------------|------------------|--------------------|-------------------------|---------------------|
| City Ward | Single Family | Semi Detached | Condominium | Other Multi-Residential | Total |
| 1 | \$649,653 | \$5,903 | \$55,662 | \$111,638 | \$822,855 |
| 2 | \$129,678 | \$35,286 | \$48,581 | \$249,410 | \$462,954 |
| 3 | \$603,921 | \$14,675 | \$1,463 | \$130,128 | \$750,187 |
| 4 | \$1,224,231 | \$5,937 | \$2,539 | \$98,488 | \$1,331,195 |
| 5 | \$1,712,287 | \$69,122 | \$150,234 | \$309,326 | \$2,240,969 |
| 6 | \$2,201,929 | \$76,510 | \$109,907 | \$257,351 | \$2,645,697 |
| 7 | \$2,750,212 | \$69,362 | \$64,523 | \$340,902 | \$3,224,999 |
| 8 | \$3,978,125 | \$79,675 | \$114,205 | \$184,077 | \$4,356,082 |
| 9 | \$1,285,008 | \$16,624 | \$56,809 | \$157,016 | \$1,515,456 |
| 10 | \$1,412,856 | \$20,499 | \$137,413 | \$131,493 | \$1,702,261 |
| 11 | \$1,063,824 | \$4,317 | \$464,330 | \$46,642 | \$1,579,113 |
| 12 | \$1,139,667 | \$1,470 | \$92,534 | \$71,280 | \$1,304,952 |
| 13 | \$1,032,952 | \$7,821 | \$54,239 | \$133,880 | \$1,228,892 |
| 14 | \$387,472 | \$0 | \$0 | \$9,023 | \$396,496 |
| 15 | \$381,121 | \$8,423 | \$24,741 | \$29,418 | \$443,703 |
| City Total | \$19,952,937 | \$415,622 | \$1,377,181 | \$2,260,072 | \$24,005,812 |

* Pensioner address information provided by USW Local 1005, USW Local 8782 and SSPO

** Information on tax contributions obtained from the City of Hamilton - Finance and Corporate Services Department (2014)

The tax revenue analysis performed in Chart S provides a great visibility into the annual property tax revenue contributions of known and identified USSC pensioners living in the City of Hamilton, including the following facts:

- The Single Family dwellings associated with known Hamilton USSC pensioners contribute almost \$20 million in property taxes annually to the City of Hamilton;
- The properties associated with known USSC pensioners make sizeable cumulative contributions by ward, ranging from almost \$400 thousand in Ward 14 to over \$4.3 million in Ward 8;
- All of the dwellings associated with known USSC pensioners in Hamilton provide the City of Hamilton with approximately \$24 million annually; and
- It is important to note that the City of Hamilton does not bare any significant level of risk relating to lost property tax revenues due to a USSC pensioner's association with a property, even in the case of an event that causes significant income decreases to a USSC pensioner.

Potential Impacts of USSC Bankruptcy on the City of Hamilton

The City of Hamilton is a service provider and key stakeholder of all businesses located within its boundaries, and the successes or failures of those businesses can have significant direct and indirect impacts on the City. Loss of investment in a community has cumulative effects. A variety of social problems results from the loss of tax income (Russo & Linkon, n.d.).

Direct Revenue Impacts to the City of Hamilton

The City of Hamilton provides and maintains important infrastructure and other services to the business community to facilitate economic production within the city. The City utilizes numerous revenue tools to calculate and collect an appropriate amount of revenue to fund annual infrastructure and operational costs. The impacts relating to the two main revenue tools used by the City of Hamilton to fund operations are discussed below.

Property Taxes

The revenues attributed to annual property tax payments constitute the largest percentage of revenues in the City of Hamilton’s annual budget. In Chart T, the annual USSC property tax payments from 2000-2014 are provided, along with the City of Hamilton’s total property tax revenues.

Chart T: USSC Property Tax Payments and City of Hamilton Total Tax Revenues

| City of Hamilton - USSC /Stelco Billing History | | | | | |
|---|----------------------------|----------------------------|-------------------------|-------------------------------------|-------------------------------|
| Year | USSC Municipal Tax Portion | USSC Education Tax Portion | USSC Total Hamilton Tax | City of Hamilton Total Tax Revenues | USSC Total as % of City Total |
| 2000 | \$13,742,999.97 | \$8,825,756.35 | \$22,568,756.32 | 718,659,205.40 | 3.14% |
| 2001 | \$11,949,769.33 | \$7,203,638.66 | \$19,153,407.99 | 694,203,594.27 | 2.76% |
| 2002 | \$10,300,034.14 | \$5,720,940.21 | \$16,020,974.35 | 676,165,840.85 | 2.37% |
| 2003 | \$10,001,117.95 | \$4,058,612.16 | \$14,059,730.11 | 685,121,113.15 | 2.05% |
| 2004 | \$9,654,415.26 | \$3,538,744.18 | \$13,193,159.44 | 708,617,324.79 | 1.86% |
| 2005 | \$9,354,416.69 | \$3,317,702.10 | \$12,672,118.79 | 732,489,016.00 | 1.73% |
| 2006 | \$8,033,440.44 | \$2,817,206.21 | \$10,850,646.65 | 753,059,177.22 | 1.44% |
| 2007 | \$7,174,516.75 | \$3,233,377.68 | \$10,407,894.43 | 786,227,514.54 | 1.32% |
| 2008 | \$7,901,084.86 | \$2,658,878.67 | \$10,559,963.53 | 822,701,539.68 | 1.28% |
| 2009 | \$7,536,406.90 | \$2,495,343.86 | \$10,031,750.76 | 848,330,762.00 | 1.18% |
| 2010 | \$6,889,057.39 | \$2,239,955.78 | \$9,129,013.17 | 874,250,147.39 | 1.04% |
| 2011 | \$5,424,123.51 | \$1,720,080.15 | \$7,144,203.66 | 896,531,985.97 | 0.80% |
| 2012 | \$4,681,272.46 | \$1,479,020.68 | \$6,160,293.14 | 919,085,378.06 | 0.67% |
| 2013 | \$4,663,912.59 | \$1,465,522.84 | \$6,129,435.43 | 947,546,319.74 | 0.65% |
| 2014 (Forecasted) | \$4,551,935.71 | \$1,423,631.19 | \$5,975,566.90 | \$975,098,288.12 | 0.61% |

* Information obtained from the City of Hamilton - Finance & Corporate Services Department (2014)

The above chart highlights some major tax revenue trends over the past 15 years, including:

- The annual total tax contributions from USSC have been steadily decreasing since 2000, having decreased over 70% from the \$22.56 million paid in 2000 to just under \$6 million forecasted for 2014;
- As the USSC tax revenues have been decreasing, the City of Hamilton total tax revenues have been steadily increasing, resulting in USSC’s contributions representing a decreasing percentage of total revenues;
- USSC’s tax contributions represented over 3% of total tax revenues in 2000, but is under 1% in 2014; and
- The USSC tax contributions from recent years (prior to 2014) have recently been successfully appealed by USSC, and necessitating a large tax rebate owing to USSC of over \$6 million.

While the City of Hamilton is highly reliant on property taxes from businesses and residents to maintain infrastructure and operations and has the ability to influence property tax rates, the determination of property values which are a key component to the total tax payable formula is outside of the city's control.

- Annual property taxes amounts are determined by a multi-year assessment completed by a provincial government agency, the Municipal Property Assessment Corporation (MPAC), based on a number of factors including the number, type and use of buildings on the land and overall use of land;
- Regardless of the type of economic activity occurring on the USSC lands in Hamilton, there is a minimum annual amount of property taxes that the City can expect due to the assessed value of that industrial land, which has been projected to be \$2.6 million in a worst case scenario (no buildings, no economic activity);
- Property tax revenues are a highly secure type of revenue for municipalities, as municipalities have special rights and creditor priorities protecting their ability to collect property tax revenues including the ability to charge a higher than market interest rate on unpaid balances and under certain circumstances to pursue tax arrears through a sale of the land; and
- These special rights protect the City of Hamilton's interests with respect to future property tax revenues in situations where businesses are in a potential bankruptcy position like USSC.

Water Revenues

The City of Hamilton provides the infrastructure and associated services to deliver water and wastewater services to local businesses and residents, and charges both a fixed fee and a variable rate for the consumption of water and wastewater services used annually. In Chart U below, the annual USSC water consumption charges from 2008-2014 are provided, along with the City of Hamilton's total water related revenues.

Chart U: USSC Water Consumption Charges and City of Hamilton Total Water Revenues

| City of Hamilton - Annual Water Consumption Revenue | | | |
|---|----------------------|---|---------------------------|
| Fiscal Year | Total Water Revenues | US Steel Canada Water Consumption Revenue | % of Total Water Revenues |
| 2008 | \$138,521,508 | \$5,293,429 | 3.82% |
| 2009 | \$136,336,138 | \$3,971,581 | 2.91% |
| 2010 | \$138,915,784 | \$2,545,044 | 1.83% |
| 2011 | \$148,566,831 | \$2,271,028 | 1.53% |
| 2012 | \$154,226,818 | \$2,325,619 | 1.51% |
| 2013 | \$156,512,347 | \$1,844,122 | 1.18% |
| 2014 (Forecasted) | \$159,831,673 | \$2,100,000 | 1.31% |

* Information obtained from the City of Hamilton - Finance & Corporate Services Department (2014)

The chart above details major water revenues over the past seven years that USSC has been operating the Hamilton Works location along with the total water revenues for Hamilton, identifying the following stats:

- The City of Hamilton receives a significant amount of revenue from the delivery of water and wastewater services to residents and businesses, and those revenues have experienced a steady and mostly consistent growth over the past few years;
- There has been a significant decrease in the amount of water related revenues collected from USSC since 2008, indicating a decreased level of economic activity occurring on the property;
- The water related revenues from USSC has decreased as a percentage of total City of Hamilton water revenues from 3.8% in 2008 to a forecasted 1.3% in 2014; and
- The City is owed approximately \$660 thousand by USSC in water and sewer charges related to pre-CCAA filing services consumed by USSC, and the City has filed a claim in the CCAA proceedings. As of the December 31, 2014, USSC had not fully paid all post filing water and sewer charges.

Forecasted Total Revenue Impact – Worst-Case Scenario

The analysis of the USSC related tax revenues over the past few years, as shown in Chart T and Chart U, highlights how the health and operational output of a company with facilities and/or offices located in the City of Hamilton has a direct impact on the financial health of the City of Hamilton. As both property tax and water revenues are significantly impacted by the effective use and output of land and facilities, the City of Hamilton is a major stakeholder in the success of not only USSC, but of all businesses operating in the city.

Given the current situation at USSC, there is currently no clear picture available concerning the future of the USSC facilities in Hamilton, and there is an infinite number of possibilities relating to future operating levels and associated operational output. At this time, based on available information, any estimate of anticipated future tax revenues related to the USSC facilities in Hamilton would be highly speculative and would be limited in numerous ways due to the uncertain operational outlook of the facilities. However, we are able to use available resources to project the tax revenues associated with a “Worst-Case Scenario”, that being absolutely no economic output from all USSC lands in Hamilton (if those lands were completely vacant and without any buildings or structures).

In Chart V below, the Forecasted City Revenues relating to USSC Property Taxes and Water/Wastewater service charges as first identified in Chart T and Chart U have been displayed, and compared against the projected taxes and service revenues associated with the “Worst-Case Scenario”. A key assumption in this “Worst-Case Scenario” is that the USSC lands in Hamilton have a market value of over \$100 million, and that any possible environmental liabilities associated with the USSC real estate portfolio would not decrease the realisable value of the portfolio below the cumulative total dollar amount of any deferred property tax and interest income owing (tax arrears) that could be realized in a possible tax sale.

Chart V: USSC Property Tax Payments and City of Hamilton Total Tax Revenues

| City of Hamilton - USSC Property Tax and Water Revenue Scenario Analysis | | | |
|--|---|---|------------------------|
| City Revenue Category | Forecasted City Revenues USSC - (2014) | Worst-Case Scenario Forecasted City Revenues USSC - (Future Year)** | Difference |
| Property Taxes | \$4,500,000.00 | \$2,600,000.00 | -\$1,900,000.00 |
| Water / Wastewater | \$2,100,000.00 | \$100,000.00 | -\$2,000,000.00 |
| Total | \$6,600,000.00 | \$2,700,000.00 | -\$3,900,000.00 |

* Information obtained from the City of Hamilton - Finance & Corporate Services Department (2014)
**The Worst-Case Scenario is defined as no economic activity on all USSC lands, no buildings or structures on land

The above table highlights identify the following key points:

- The current USSC land composition and use projects for a total annual tax revenue of \$4.5M in 2014 with approximately \$2.6M of that total being fixed based on MPAC’s current property appraisal methodology;
- The remaining amount is variable based on level of activity, meaning there could be a reduction of approximately \$1.9M annually if all buildings were removed and no economic activity took place;
- Due to USSC’s specific type of water servicing infrastructure at its Hamilton properties, the fixed cost component of the annual water bill is approximately \$100,000, making more than 95% of the 2014 forecasted total related to variable costs (approximately \$2 million in water consumption /discharge);
- A vast majority of the City of Hamilton’s USSC related water revenues are contingent on the productivity of the facilities, and decreases in economic output at USSC have a material impact on water usage and associated City of Hamilton water related revenues; and
- A worst case scenario for the City of Hamilton as it relates to USSC property tax and water revenues would be a further reduction of approximately \$3.9M annually, reducing the current annual revenues from approximately \$6.6M (forecasted for 2014) to approximately \$2.7M annually in a future year.

Impacts on City Programs and Services

There is a wide breadth of programs and services offered by the City of Hamilton to businesses and residents of the city. The failure or bankruptcy of any business in the City of Hamilton has the potential to produce a resulting impact on many of these programs and services. With USSC being one of Hamilton’s largest employers and a contributor to over 7,000 residents post-retirement incomes, there is a high degree of likelihood that the demand for and utilization of many programs and services offered by the City of Hamilton will be impacted.

The various divisions and departments of the City of Hamilton completed the first steps of a risk identification exercise to identify programs or services that may be impacted by the failure and bankruptcy of USSC. The results of that initial exercise can be found in Appendix C: City Of Hamilton – Program and Services Risk/Impact Chart. A high level overview chart identifying Programs/ Services by City Department/Area can be seen in Chart W below.

Chart W: Overview of Potentially Impacted Programs by City Department/Area

| City Department / Area | Existing City Program / Services Facing Potential Impact | | | | |
|-----------------------------------|--|--------------------------------------|--------------------------------------|-------------------------------------|--|
| City Housing Hamilton | Landlord and Tenant Matters | | | | |
| Community and Emergency Services | Ambulance Services | Funding for Food Banks | Housing Waitlist | Recreation Fee Assistance | Social and Emergency Assistance Programs |
| | Domiciliary Hostels Program | Helping Hands | Macassa and Wentworth Lodges | Recreation Grant Subsidies | Special Supports Services |
| | Facility Bookings | Housing Help Centre | Ontario Renovates Program | Rent Bank | Transportation Subsidy for Domiciliary Hostels |
| | Funding for Emergency Shelters | Housing Stability Benefit | Recreation and Senior Centres | Snow Angels | Utilities Arrears Benefit |
| Corporate Services | Customer Service | Compassionate Tax Assistance Program | Property Taxes | Tax Arrears | Tax Rebate Program |
| Human Resources: | Employee and Family Assistance Program | | | | |
| Planning and Economic Development | Municipal Law Enforcement | | | | |
| Public Health Services | Alcohol, Drug and Gambling Services | Dental Health Bus | Dental Services | Residential Care Facilities Program | Street Outreach Services |
| Public Works | DARTS | HSR | Senior and Golden Age Transit Passes | Taxi Scrips | |

The risk identification exercise looked to only identify potential risks and associated programs/services, but did not probe into program/service eligibility criteria, current usage, current capacity, service location(s), delivery costs or other program service metrics due to the scope of this report. The exercise, while certainly limited in scope, did provide important initial information, including:

- The City of Hamilton has a significant number of programs and services already available to begin providing assistance to employees/retirees impacted by a potential USSC business failure or bankruptcy;
- A business failure or bankruptcy of USSC will have varying effects on the numerous identified programs and services, in some circumstances accelerating a resident’s certain future needs for a program/service, while in other circumstances creating need that wouldn’t have existed if there was not income/pension loss; and
- An enhanced scope of investigation of the likely impacted programs/services would increase the City of Hamilton’s ability to better forecast future needs, budget for those needs and implement initiatives that increase capacity to meet the anticipated demand.

There are also Provincial programs including the Drug Program Co-Payment for Seniors and the Senior Homeowner’s Property Tax Grant (OFL, 2011).

Impacts on the Businesses, Organizations and Residents of the City of Hamilton

There are many stakeholders outside of the normally mentioned major stakeholder groups that will be impacted by a material change in operations to USSC. Beyond the obvious impacts on direct employment at USSC, retirement incomes of USSC pensioners, and taxes collected by the City of Hamilton, some other important stakeholder groups are identified and the potential impacts to those groups are examined in the following section.

Impacts on Local Businesses

The businesses of a city or community are impacted by the overall health and strength of the local economy, as cash from business revenues and employment incomes of local businesses and employees have the potential to be spent in the city or community. This section looks at the impacts on all local businesses, both the known Direct Suppliers of USSC, whose impact is easier to visualize and quantify, and the other businesses in Hamilton, who rely on the expenditures of the employees and retirees of USSC and its local suppliers.

Direct Suppliers of USSC

A result of USSC pursuing creditor protection in September 2014 was that it provided the public with a unique insight into the company's large and diverse number of creditors at that time. In the initial CCAA documentation disclosure, USSC provided the courts with a List of Creditors (Trade Payables), identifying the names, mailing addresses and total amount owing as of the date of filing. While this list is still being finalized, and does not identify all companies in the USSC supply chain over the course of a full year, it provides quantitative data for a highly conservative estimate of the financial impact of the possible failure of USSC.

In Chart X below, the List of Creditors described above was analyzed and the 684 Trades Payables were grouped by country and sorted into categories based on outstanding balances owed by USSC as at September 16, 2014.

Chart X: Analysis of Identified List of Creditors (Trade Payables)

| US Steel Canada - Analysis of the Identified List of Creditors (Trade Payables) | | | |
|---|---|--|---------------------------------------|
| Characteristics of Creditors (Country of Operation) | Number of Identified Creditors | Total Amount Owed by USSC | % of Total Amount Owed Trade Payables |
| Canada Based | 551 | \$59,334,183 | 75.27% |
| USA Based | 129 | \$19,457,396 | 24.68% |
| Based Outside of Canada / USA | 4 | \$33,189 | 0.04% |
| All Trade Payables | 684 | \$78,824,768 | |
| Characteristics of Creditors (Location in Canada) | Number of Identified Creditors | Total Amount Owed by USSC | % of Total Amount Owed Trade Payables |
| Companies Based in Ontario | 529 | \$47,248,834 | 59.94% |
| Companies Based in the City of Hamilton | 127 | \$22,304,256 | 28.30% |
| Hamilton Creditors Categorized by Amount Owning | Number of Identified City of Hamilton Creditors | % of Total Identified City of Hamilton Creditors | |
| \$1 Million or More | 4 | 3.15% | |
| \$500K - \$999K | 4 | 3.15% | |
| \$100K - 499K | 23 | 18.11% | |
| \$25K - \$99K | 31 | 24.41% | |
| Under \$25K | 65 | 51.18% | |

*Information obtained from CCAA disclosure document - U.S. Steel Canada Inc. - List of Creditors (as of September 16, 2014)

The table on the previous page highlights the following key points:

- Approximately 60% of the \$78.8 million owed is to Ontario based companies (529 total);
- There are 127 companies with business addresses in the City of Hamilton, and they are collectively owed a total of \$22.3 million (28.3% of the \$78.8 million);
- There are four Hamilton based companies who are owed more than \$1 million, and an additional 27 companies owed between \$100 thousand - \$999 thousand; and
- There are 96 Hamilton based companies who are owed under \$100 thousand, with a majority of these being owed less than \$25 thousand.

The financial totals identified in the chart related to amounts owing by USSC for services already performed (or having provided USSC with other consideration from a contractual standpoint) by the companies and the totals have likely been fully recognized as revenue by the creditor companies. Decreases in revenues received (a likely outcome of CCAA processes) will directly impact the bottom line of all the identified companies. While the publicly available information on USSC creditors identifies only creditor names and amounts based on a specific date and a specific period of time, it is highly likely that the full list of USSC suppliers is larger, and the annual total transaction value from all those suppliers are multiple times greater than \$78.8 million. A potential effect of a bankruptcy and/or closure of USSC would be that the business transactions occurring between USSC and its suppliers would end, and that reduction in business revenues could cause significant impacts to the viability of businesses who supplied USSC and weren't adequately diversified, resulting in potential job reductions and business failures.

Other Businesses in Hamilton

While this study has not attempted to quantify the economic spin-off associated with business conducted by those associated with the USSC supply chain, or the economic activity and any potential multiplier effect relating to expenditures by USSC employees or retirees, it recognizes the validity and applicability of the theory as briefly summarized in the points below:

- Reduced incomes of USSC employees and retirees would decrease the amount of cash available for possible expenditure at local businesses in the City of Hamilton;
- Reduced revenues of Hamilton based USSC suppliers due to a USSC failure may force changes to the supplier's business employment levels, which would decrease the total amount of cash available to its current employees for expenditure in the City of Hamilton; and
- Reduced expenditure by USSC employees and supplier's employees would have a similar negative revenue impact on local businesses and possibly the incomes/expenditures of their employee base, and any recognized impact there would continue to trickle down to subsequent rounds of expenditure.

There was not any publicly available data on the incomes of current USSC employees that could be used to help project the likely impact that job loss would have on their future expenditures, but information provided by the USSC pensioner groups has allowed for an estimation on the reduced pension incomes of pensioners by City ward. In Chart Y on the following page, the current estimated annual pensions of identified USSC pensioners are totalled by their identified ward, and those totals are then adjusted to reflect the underfunded status of their pension plan (as of December 31, 2013) and the possible impact of the PBGF.

It is likely that the forecasted decreases in retirement income would impact the associated pensioners ability to consume goods and services, and that the reduction in consumption would impact the frequency and size of non-essential purchases at local small businesses in and around their ward. The projected total income loss (and associated expenditure reduction) for USSC pensioners living in Hamilton is over \$28 million prior to any support from the PBGF, and would be projected to be over \$8.7 million if the PBGF applied.

Chart Y: Estimated Annual Pension Incomes of Hamilton Based USSC Pensioners by Ward

| Estimated Annual Pension Incomes of Identified Hamilton Based USSC Pensioners by Ward | | | | | |
|---|--|---|----------------------------------|--|----------------------------------|
| Ward | Total Annual Pension Payments - Unadjusted (as of Dec. 31, 2013) | Total Annual Pension Payments (Adjusted for % Funded) | Difference from Unadjusted Total | Total Annual Pension Payments (Adjusted for % Funded and PBGF) | Difference from Unadjusted Total |
| 1 | \$4,898,546 | \$3,880,674 | -\$1,017,871 | \$4,571,470 | -\$327,076 |
| 2 | \$4,234,167 | \$3,307,231 | -\$926,936 | \$3,946,472 | -\$287,695 |
| 3 | \$6,297,745 | \$4,761,290 | -\$1,536,456 | \$5,859,374 | -\$438,372 |
| 4 | \$9,991,603 | \$7,643,167 | -\$2,348,436 | \$9,302,450 | -\$689,153 |
| 5 | \$13,325,284 | \$10,220,888 | -\$3,104,396 | \$12,410,135 | -\$915,149 |
| 6 | \$15,937,943 | \$12,355,953 | -\$3,581,991 | \$14,849,893 | -\$1,088,050 |
| 7 | \$17,382,892 | \$13,505,986 | -\$3,876,906 | \$16,194,637 | -\$1,188,254 |
| 8 | \$14,373,942 | \$11,261,077 | -\$3,112,865 | \$13,394,123 | -\$979,819 |
| 9 | \$8,041,090 | \$6,225,286 | -\$1,815,804 | \$7,491,183 | -\$549,908 |
| 10 | \$9,110,906 | \$7,050,637 | -\$2,060,268 | \$8,490,269 | -\$620,637 |
| 11 | \$8,397,708 | \$6,563,593 | -\$1,834,115 | \$7,825,951 | -\$571,757 |
| 12 | \$5,814,301 | \$4,711,859 | -\$1,102,442 | \$5,433,213 | -\$381,089 |
| 13 | \$5,288,927 | \$4,250,678 | -\$1,038,249 | \$4,940,278 | -\$348,649 |
| 14 | \$1,782,690 | \$1,384,969 | -\$397,721 | \$1,661,930 | -\$120,761 |
| 15 | \$1,968,877 | \$1,583,893 | -\$384,984 | \$1,838,745 | -\$130,131 |
| Unassigned | \$1,050,153 | \$893,042 | -\$157,112 | \$983,929 | -\$66,224 |
| Total | \$127,896,775 | \$99,600,222 | -\$28,296,553 | \$119,194,052 | -\$8,702,723 |

*Estimated Annual Pension Payment uses average pension incomes by pension plan found in 2013 Actuarial Reports - Dated December 31, 2013
 ** Ward location of USSC pensioners obtained by using address information provided by USW Local 1005, USW Local 8782 and SSPO
 *** Adjustment percentages for % Funded and PBGF adjustments use % Funded totals from 2013 Actuarial Reports - Dated December 31, 2013, and assume PBGF eligibility

Impacts on City Residents

The presence and importance of USSC in the Hamilton economy has been a constant through the lives of many Hamiltonians, with many of those residents being either directly associated with the company, or indirectly associated through their network of family, friends and neighbours. The permanent closure of USSC would have the largest and most significant impact on employees, pensioners and suppliers, but all Hamiltonians would likely notice some of the trickle down impacts such as, but not limited to:

- Increased financial stress and anxiety of family, friends, neighbours and colleagues;
- Accelerated neighbourhood turnover as USSC employees and USSC pensioners make financial adjustments to match their resulting incomes; and
- Accelerated transition of businesses as the local economy adjusts to reduced purchasing power and changing buying habits of some citizens.

The impact felt by retirees will also be felt by their communities. Despite the devastating loss of pension for older adults in Hamilton, it may be possible to mitigate these losses by planning ahead and organizing services within the community to meet their needs. Planning and organizing resources can help to reduce, or even eliminate, the negative outcomes of an event (van Solinge, 2007).

Impacts to Community Organizations

Community organizations rely on the generous and voluntary contributions of employers, employees and other community members to help them both fund and fulfill their missions. The failure of USSC would likely have a number of significant impacts on local community organizations, such as:

- A reduction in direct corporate contributions to community organizations (including the unlikely completion of the outstanding amount from the pledged \$3 million in contributions in 2007);
- A reduction in the support by current USSC employees (both volunteer hours and dollars contributed) who will need to focus their efforts on pursuing employment opportunities and managing a reduced income;

- A reduction in the support by USSC retirees (dollars contributed) who will need to focus their efforts on managing a reduced income; and
- Local support agencies may experience an increase in requests for service. For example, in Flint, Michigan, the United Way noted a 25% increase in referrals in the months following the GM plant closure in that community (Russo & Linkon, n.d.).

Conclusion

This report has attempted to gather and publish information relevant to the USSC and its stakeholders using available information, and to convey the complexity of the current situation facing USSC. There are numerous unknown variables that make projecting the possible impacts of a business failure or bankruptcy an inexact science. While there are limitations on the findings of this report due to the age and accessibility of information, the major findings from what could be analysed are relevant and clear:

- The situation facing USSC is complicated and is unlikely to be resolved to the satisfaction of all stakeholders quickly or easily, if at all;
- The situation facing USSC is not a City of Hamilton specific problem, but one that impacts current employees, pensioners, suppliers, and the businesses and residents of municipalities across Ontario;
- There is a significant concentration of stakeholders within the geographic area of the City of Hamilton due to USSC's operational history in the area;
- The City of Hamilton has numerous programs and services already in place to address many of the risks associated with a USSC business failure, and the capacity of those programs and services to meet the potential need could be studied to identify potential gaps;
- The provincial government and federal government are major stakeholders in this process through their direct agreements with USS and USSC, their legislated obligations, and their associated programs and funds; and
- The impacts of the eventual outcome on Hamilton based USSC stakeholders will be likely be significantly impacted by the following:
 - The ability of the creditors (including the City of Hamilton) to ensure a fair and transparent CCAA process;
 - The ability of the federal government to hold USS and/or USSC to the provisions of their agreements (those agreements that gave the federal government the confidence to approve the sale of Stelco in 2007); and
 - The ability of the provincial government to ensure that USSC pensioners have full and normal access to the PBGF if their pension plans are wound up in an underfunded position.

Appendices

Appendix A: Spectator Coverage of September 2014 USSC CCAA Process

September 16, 2014

- U.S. Steel Canada files for bankruptcy protection.
- U.S. Steel Canada is under court-ordered protection from its creditors.
- Pension costs as one of its major hurdles, saying the Canadian operation accounts for about \$1 billion of its employee benefits liability. For over 14,000 pensioners, that is a warning they could lose a chunk of their retirement income. Some estimates have said that loss could be as high as 30 per cent.

<http://www.thespec.com/news-story/4863643-u-s-steel-canada-files-for-bankruptcy-protection/>

September 17, 2014

- U.S. Steel says it can't finance operations without creditor protection.
- Court-ordered protection, he said, is the only chance the company has to work with its creditors and other groups "to develop mutually acceptable payment terms without the prospect of a cessation of operations and the attendant consequences for USSC's customers."

<http://www.thespec.com/news-story/4865160-u-s-steel-says-it-can-t-finance-operations-without-creditor-protection/>

September 17, 2014

- U.S. Steel Canada files for bankruptcy protection.
- Despite substantial efforts over the past several years to make U.S. Steel Canada profitable, it is clear that restructuring ... is critical to improving our long-term business outlook.
- That pension statement echoes claims Stelco made in 2004, when it sought protection under the Company's Creditors Arrangements Act (CAA) saying the cost of topping up its badly under-funded pension plans was driving it out of business.
- The restructuring will be overseen by William Aziz of Blue Tree Advisors II Inc., appointed chief restructuring officer. The American parent firm has provided \$185 million in financing to keep the company operating.

<http://www.thespec.com/news-story/4863643-u-s-steel-canada-shielded-from-creditors/>

September 17, 2014

- What is the CCAA?
- The Pittsburgh headquarters of U.S. Steel said it will provide \$185 million of secured financing to support Canadian operations through the end of 2015.

<http://www.thespec.com/news-story/4865472-what-is-the-cca-/>

September 18, 2014

- U.S. Steel's pension shortfall raises concerns
- Depending on what happens when the company eventually exits the protection process — either bankrupt, restructured or sold — a worst-case scenario could see some retirees lose as much as one-quarter to one-third of their pensions as well as the loss of extended benefits.
- Rolf Gerstenberger, president of Local 1005, suggested the company's request for creditor protection is "a scam."

<http://www.thespec.com/news-story/4865604-u-s-steel-s-pension-shortfall-raises-concerns/>

September 19, 2014

- Union says U.S. Steel plan 'conspiracy to commit fraud'.
- U.S. Steel's creditor protection filing as a smokescreen for a complex plan to cheat pensioners.

<http://www.thespec.com/news-story/4869635-union-says-u-s-steel-plan-conspiracy-to-commit-fraud>

September 20, 2014

- From steel giant to this: How did we get here?

<http://www.thespec.com/news-story/4871463-from-steel-giant-to-this-how-did-we-get-here>

September 23, 2014

- U.S. Steel owes \$94 million to suppliers, including 190 companies in the Hamilton area.
- Under Canada's creditor protection law, suppliers can't sue the company for amounts they are owed as of the day court protection is granted. They also have to keep to any contracts that are in force.
- Under the Companies Creditors Arrangements Act, U.S. Steel must now negotiate a debt restructuring plan with its creditors, getting them to accept something less than their full claims in order for U.S. Steel Canada to avoid bankruptcy.

<http://www.thespec.com/news-story/4874690-u-s-steel-owes-94-million-to-suppliers/>

September 30, 2014

- U.S. Steel seeks incentive payouts to retain 'key employees'.
- The company is going to court Monday for permission to pay 28 key managers and others more than \$2.5 million to stay through its restructuring under creditor protection.

<http://www.thespec.com/news-story/4887000-u-s-steel-seeks-incentive-payouts-to-retain-key-employees/>

October 8, 2014

- U.S. Steel restructuring official 'optimistic something will get done.'
- At issue is a company proposal to finance its operations while under creditor protection with a \$185-million loan from its parent firm under terms that put that debt ahead of other company obligations in Canada.

<http://www.thespec.com/news-story/4902443-u-s-steel-restructuring-official-optimistic-something-will-get-done/>

October 30, 2014

- U.S. Steel slashes losses but Canadian bankruptcy proceeds.
- U.S. Steel Corp. executives have made it clear that the bankruptcy proceedings for the company's Canadian operation are now out of their hands, including the potential sale of any assets.

<http://www.thespec.com/news-story/4950264-u-s-steel-slashes-losses-but-canadian-bankruptcy-proceeds/>

November 14, 2014

- Smaller creditors gain key concession from U.S. Steel.
- Claims against Canadian operations will now require court approval.

<http://www.thespec.com/news-story/5028736-smaller-creditors-gain-key-concession-from-u-s-steel/>

November 26, 2014

- U.S. Steel seeks court approval for pension plan.
- The former Stelco's four main pension plans are more seriously short of what they need to pay all promised pensions if the company goes out of business. With U.S. Steel under court-supervised creditor protection, many former employees fear they will be expected to take a reduction in their retirement income.

<http://www.thespec.com/news-story/5156123-u-s-steel-seeks-court-approval-for-pension-plan/>

November 27, 2014

- U.S. Steel gets OK to start pension assessment process.

<http://www.thespec.com/news-story/5157327-u-s-steel-gets-ok-to-start-pension-assessment-process/>

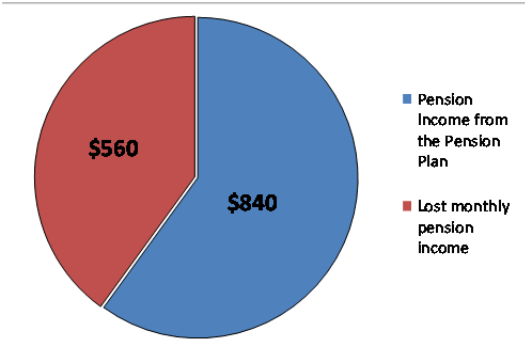
Appendix B: PBGF Payment Analysis

PBGF Payment Analysis - Pension Funding Scenario #1

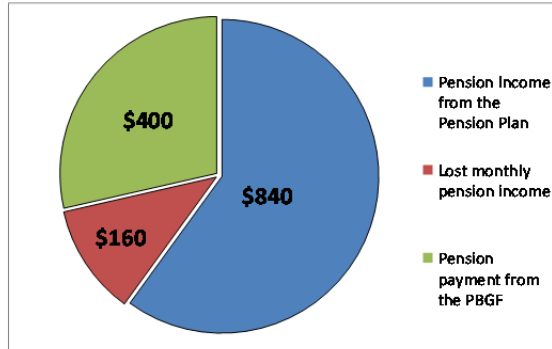
Scenario Assumptions

1. A pension fund is wound up that is only 60% funded, leaving a 40% shortfall in pension plan assets.
2. Pension member "A" would normally be entitled to a \$1,400 monthly pension under a fully funded scenario.
3. Pension member "B" would normally be entitled to a \$2,000 monthly pension under a fully funded scenario.
4. Pension member "C" would normally be entitled to a \$2,600 monthly pension under a fully funded scenario.

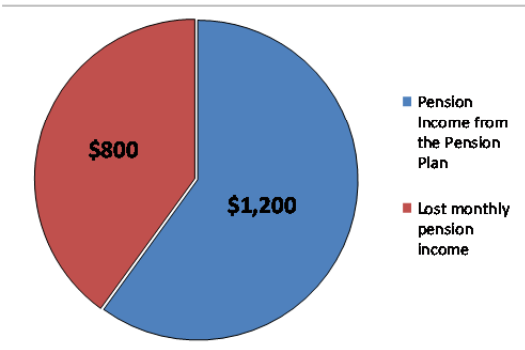
**Breakdown of Pension Member "A's Monthly Pension
Without the Pension Benefits Guarantee Fund**



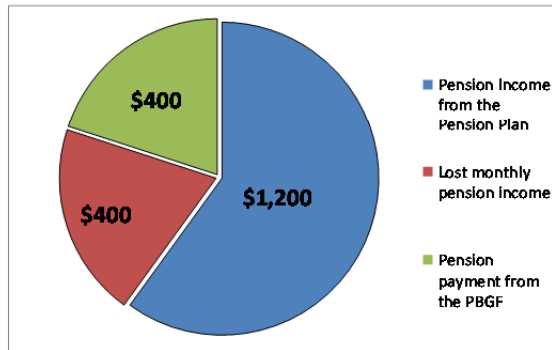
**Breakdown of Pension Member "A's Monthly Pension
With the Pension Benefits Guarantee Fund**



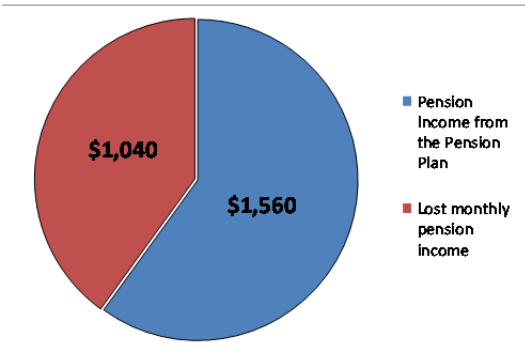
**Breakdown of Pension Member "B's Monthly Pension
Without the Pension Benefits Guarantee Fund**



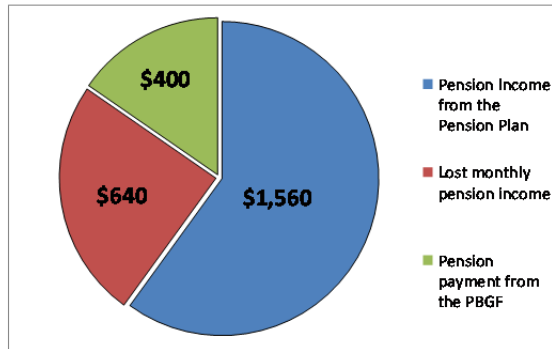
**Breakdown of Pension Member "B's Monthly Pension
With the Pension Benefits Guarantee Fund**



**Breakdown of Pension Member "C's Monthly Pension
Without the Pension Benefits Guarantee Fund**



**Breakdown of Pension Member "C's Monthly Pension
With the Pension Benefits Guarantee Fund**



Pension Benefit Guarantee Fund - Determining Disbursement Totals

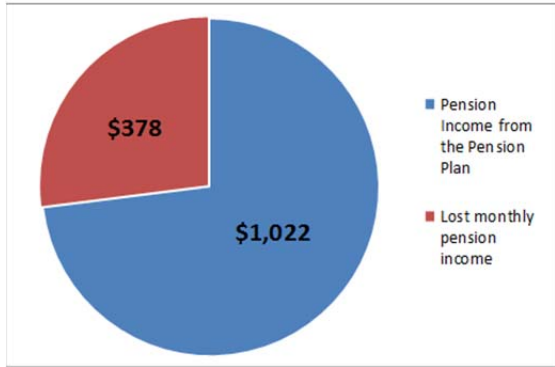
For pensions up to \$1,000 / month, it is fully funded through a combination of pension plan assets and the PBGF.
For pensions over \$1,000 / month, the PBGF provides a payment equal to the unfunded pension amount on the first \$1,000.

PBGF Payment Analysis - Pension Funding Scenario #2

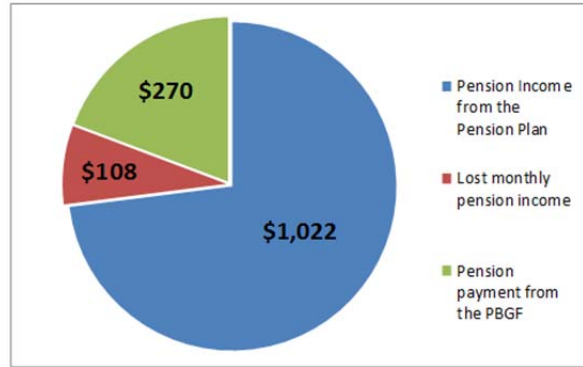
Scenario Assumptions

1. A pension fund is wound up that is only 73% funded, leaving a 27% shortfall in pension plan assets.
2. Pension member "A" would normally be entitled to a \$1,400 monthly pension under a fully funded scenario.
3. Pension member "B" would normally be entitled to a \$2,000 monthly pension under a fully funded scenario.
4. Pension member "C" would normally be entitled to a \$2,600 monthly pension under a fully funded scenario.

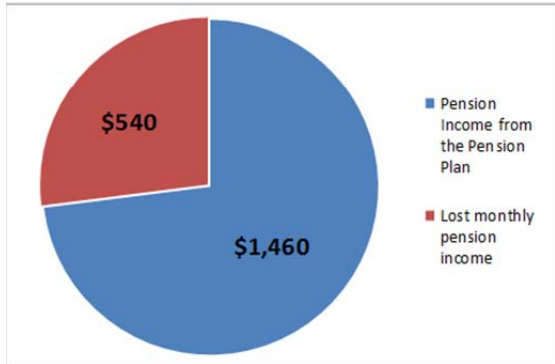
**Breakdown of Pension Member "A"s Monthly Pension
Without the Pension Benefits Guarantee Fund**



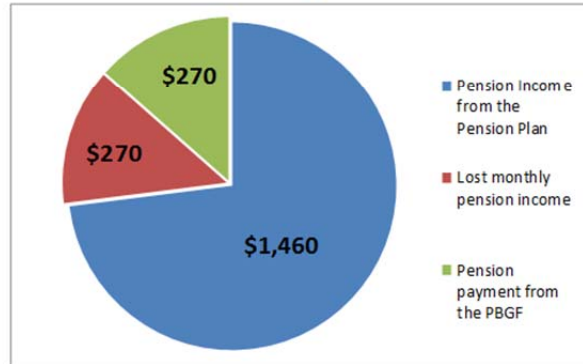
**Breakdown of Pension Member "A"s Monthly Pension
With the Pension Benefits Guarantee Fund**



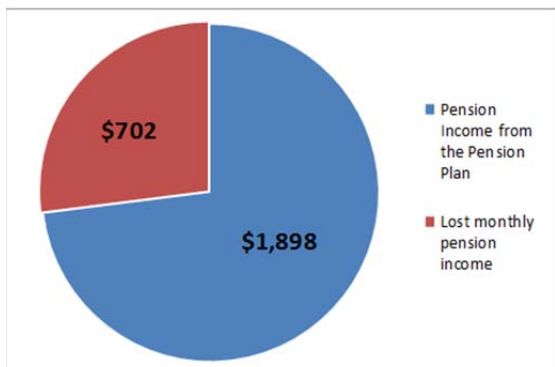
**Breakdown of Pension Member "B"s Monthly Pension
Without the Pension Benefits Guarantee Fund**



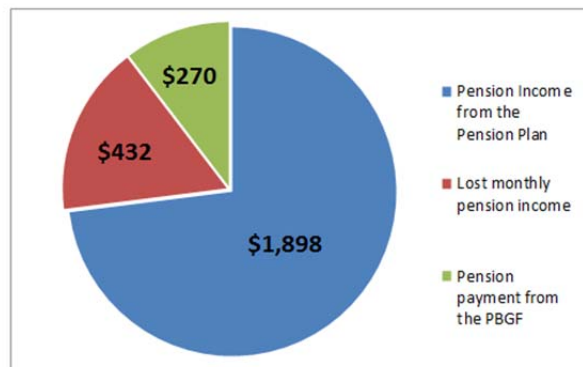
**Breakdown of Pension Member "B"s Monthly Pension
With the Pension Benefits Guarantee Fund**



**Breakdown of Pension Member "C"s Monthly Pension
Without the Pension Benefits Guarantee Fund**



**Breakdown of Pension Member "C"s Monthly Pension
With the Pension Benefits Guarantee Fund**



Pension Benefit Guarantee Fund - Determining Disbursement Totals

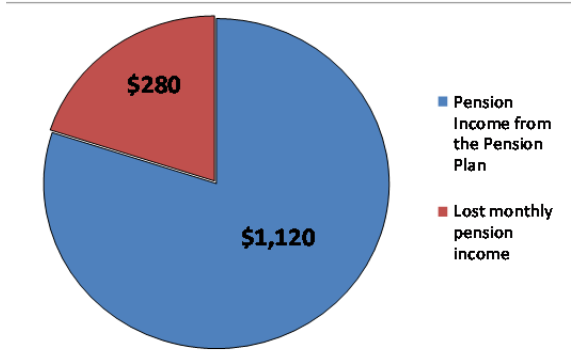
For pensions up to \$1,000 / month, it is fully funded through a combination of pension plan assets and the PBGF.
For pensions over \$1,000 / month, the PBGF provides a payment equal to the unfunded pension amount on the first \$1,000.

PBGF Payment Analysis - Pension Funding Scenario #3

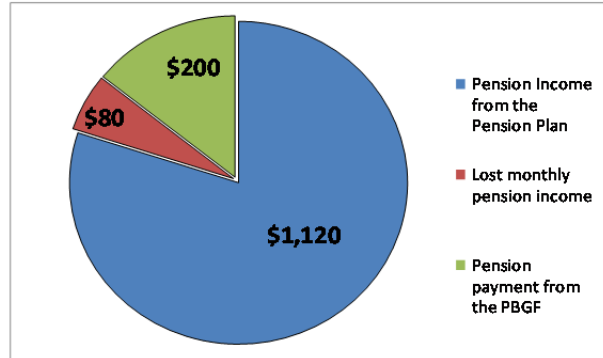
Scenario Assumptions

1. A pension fund is wound up that is only 80% funded, leaving a 20% shortfall in pension plan assets.
2. Pension member "A" would normally be entitled to a \$1,400 monthly pension under a fully funded scenario.
3. Pension member "B" would normally be entitled to a \$2,000 monthly pension under a fully funded scenario.
4. Pension member "C" would normally be entitled to a \$2,600 monthly pension under a fully funded scenario.

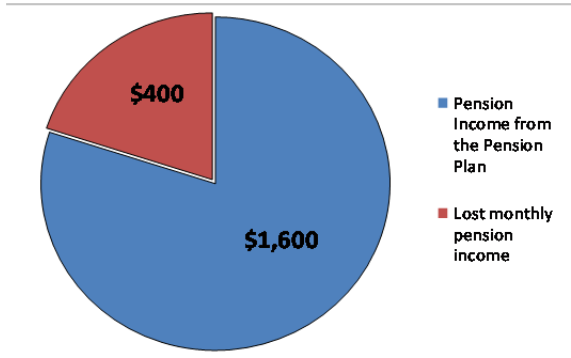
**Breakdown of Pension Member "A"s Monthly Pension
Without the Pension Benefits Guarantee Fund**



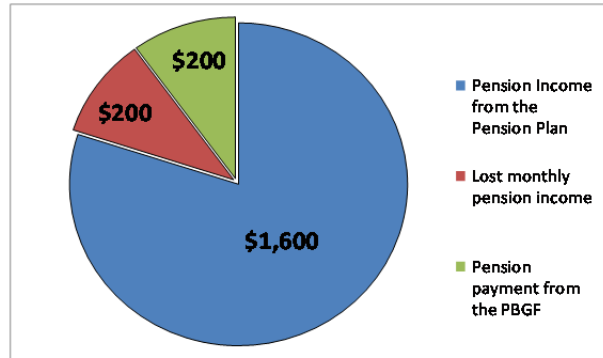
**Breakdown of Pension Member "A"s Monthly Pension
With the Pension Benefits Guarantee Fund**



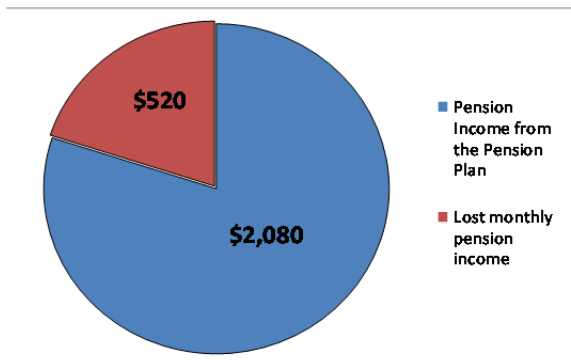
**Breakdown of Pension Member "B"s Monthly Pension
Without the Pension Benefits Guarantee Fund**



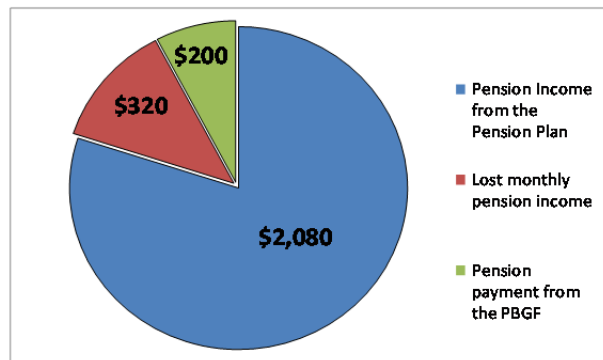
**Breakdown of Pension Member "B"s Monthly Pension
With the Pension Benefits Guarantee Fund**



**Breakdown of Pension Member "C"s Monthly Pension
Without the Pension Benefits Guarantee Fund**



**Breakdown of Pension Member "C"s Monthly Pension
With the Pension Benefits Guarantee Fund**



Pension Benefit Guarantee Fund - Determining Disbursement Totals

For pensions up to \$1,000 / month, it is fully funded through a combination of pension plan assets and the PBGF.
For pensions over \$1,000 / month, the PBGF provides a payment equal to the unfunded pension amount on the first \$1,000.

Appendix C: City Of Hamilton – Program and Services Risk/Impact Chart

| Housing and Shelter | | | |
|---|---|--|--|
| Risks to Retirees Who Lose Pension Income | Potential Impact on the Individual or Family | Potential Impact on the City of Hamilton | City Departments and Programs/Services Potentially Impacted |
| Inability to pay property and other taxes | Taxes are in arrears | Deferred tax revenue; Increased tax defaults; increased demand for Tax Rebates and Compassionate Tax Assistance | Corporate Services: Property Taxes, Tax Arrears; Tax Rebate Program; Compassionate Tax Assistance |
| Inability to pay utility bills | Reduced use of heat, gas, water to save money; may impact health and safety | Increased demand for utility assistance | Community and Emergency Services: Housing Stability Benefit, Utilities Arrears Benefit; Ambulance Services |
| Inability to pay for home maintenance | Homes fall into disrepair | Property values decline; neighbourhoods decline; increased demand for assistance | Community and Emergency Services: Helping Hands, Snow Angels; Ontario Renovates Program; Planning and Economic Development: Municipal Law Enforcement |
| Inability to pay costs to adapt homes for healthy aging | May have to leave home sooner; health and safety issues may arise | Increased demand for maintenance assistance and housing services; increased use of emergency services; increased demand for subsidized care for seniors in Domiciliary Hostels | City Housing Hamilton: Landlord and Tenant Matters Community and Emergency Services: Helping Hands; Domiciliary Hostels Program; Ambulance Services Public Health Services: Residential Care Facilities Program |
| Inability to sustain mortgage payments | Mortgage default; potential for homelessness | Property values decline; neighbourhoods decline; increased demand for housing services and services for those experiencing homelessness; increased demand for subsidized care for seniors in Domiciliary Hostels | City Housing Hamilton: Landlord and Tenant Matters Community and Emergency Services: Domiciliary Hostels Program, Housing Waitlist, Rent Bank, Housing Help Centre; Public Health Services: Street Outreach Services (Homelessness); Residential Care Facilities Program |
| Inability to maintain home ownership | Loss of independence; impact on mental health; potential for homelessness | Property values decline; neighbourhoods decline; increased demand for housing services and services for those experiencing homelessness; increased demand for subsidized care for seniors in Domiciliary Hostels | City Housing Hamilton: Landlord and Tenant Matters Community and Emergency Services: Domiciliary Hostels Program, Housing Waitlist, Rent Bank, Housing Help Centre Public Health Services: Street Outreach Services (Homelessness); Residential Care Facilities Program |

| Transportation | | | |
|---|---|---|--|
| Risks to Retirees Who Lose Pension Income | Potential Impact on the Individual or Family | Potential Impact on the City of Hamilton | City Departments and Programs/Services Potentially Impacted |
| Inability to maintain current level of transportation | Loss of independence; Impact on mental health; decreased mobility | Increased demand for subsidized Public Transportation | Community and Emergency Services: Transportation Subsidy for Domiciliary Hostels Public Works: DARTS, Taxi Scrips, HSR; Senior and Golden Age Transit Passes |

| Social and Recreation Activities | | | |
|---|---|--|--|
| Risks to Retirees Who Lose Pension Income | Potential Impact on the Individual or Family | Potential Impact on the City of Hamilton | City Departments and Programs/Services Potentially Impacted |
| Inability to maintain costs associated with social activities | Isolation and mental decline | Increased demand for social/recreation subsidies | Community and Emergency Services: Recreation and Senior Centres; Recreation Fee Assistance |
| Inability to maintain costs associated with recreation activities | Isolation, mental and physical decline | Increased demand for recreation subsidies; increased demand for free programming hours; greater usage of parks and park equipment; need to support agencies through increased grants for other social agencies to provide free recreation at the neighbourhood level; less usage and rental of community space | Community and Emergency Services: Recreation and Senior Centres; Recreation Fee Assistance; Recreation Grant Subsidies; Facility Bookings |

| Mental Health | | | |
|--|--|---|--|
| Risks to Retirees Who Lose Pension Income | Potential Impact on the Individual or Family | Potential Impact on the City of Hamilton | City Departments and Programs/Services Potentially Impacted |
| Emotional stress | Poor mental health | Overall increased demand on all services | Corporate Services: Customer Service |
| Increased drug and alcohol use/abuse | Poor mental/physical health; increased maladaptive behaviours | Increased demand on counselling services | Public Health Services: Alcohol, Drug and Gambling Services |
| Difficulty budgeting and managing finances | Financial mismanagement and high interest debt options and increased stress on finances; vulnerable to scams | Increased demand on budgeting, financial planning services; Increased demand for social assistance or emergency assistance | Community and Emergency Services: *Social assistance and emergency assistance programs |
| Emotional and financial stress on the families of pensioners | Decreased productivity and work attendance of family members | If family members are employed by the City, increased demand for counselling services | Human Resources: Employee and Family Assistance Program |
| Increased risk of domestic violence | Poor physical and mental health | Increased demand on Emergency Services | Community and Emergency Services: Ambulance Services; Funding for Emergency Shelters |
| Lack of awareness of supports available | May not access supports | Multiple communication strategies will be needed to share information | Corporate Services: Customer Service |
| Increased risk of suicide | Poor mental health and loss of life | Increased demand on Emergency Services | Community and Emergency Services: Ambulance Services; *Special Supports for funeral costs |

| Physical Health | | | |
|--|--|---|--|
| Risks to Retirees Who Lose Pension Income | Potential Impact on the Individual or Family | Potential Impact on the City of Hamilton | City Departments and Programs/Services Potentially Impacted |
| Physical illnesses worsened by stress of financial pressures | Decline in physical health | Increased stress on the health care system | Community and Emergency Services: *Special Supports for assistive devices, diabetic supplies, hearing aids, medical and surgical supplies, mobility aids; Macassa and Wentworth Lodges; Ambulance Services |
| Increased risk of disease | Decline in physical health | Increased stress on the health care system | Community and Emergency Services: *Special Supports for assistive devices, diabetic supplies, hearing aids, medical and surgical supplies, mobility aids; Macassa and Wentworth Lodges; Ambulance Services |
| Increased use of health care system | Combined with decreased mobility, stress and reduced income, may lead to overall decline in physical and mental health | Increased stress on the health care system | Community and Emergency Services: *Special Supports for assistive devices, diabetic supplies, hearing aids, medical and surgical supplies, mobility aids; Macassa and Wentworth Lodges; Ambulance Services |
| Increased risk of heart-related death | Poor physical health and loss of life | Increased demand on Emergency Services | Community and Emergency Services: Ambulance Services; *Special Supports for funeral costs |

Note: Individual retirees may or may not qualify for some of the services/programs identified in this chart. Eligibility is based on a number of factors, which would be specific to each service/program.

*Retirees may or may not be able to access these services due to eligibility requirements

Appendix D: Other Resources and Contributed Works

Listed below are additional charts, tables, images, and other contributed work that can be found in the associated hard copy of the appendix to this report:

- 1) Table: City of Hamilton (CMA) Population Demographics of Seniors, 2011
- 2) Table: Median Total Income of Seniors in Hamilton (CMA), 2011
- 3) Table: % of People Making '\$X' of Income Annually (CMA), 2012
- 4) Table: Average Age of Hamilton Residents (CMA), 2012
- 5) Table: Median Total Income in Hamilton (CMA), 2012
- 6) Table: City of Hamilton Population Changes (CMA), 2011
- 7) Table: The Percentage of Income Earner's Making Over '\$X', 2012
- 8) Table: Breakdown of US Steel Pension Payouts with CPP and OAP factored in, 2014
- 9) Table: Hamilton's Living Wage Monthly Budget, 2011
- 10) Table: Health Indicator Profile - 65 Years and Older, 2011/2012
- 11) Table: Hamilton - Structural Type of Dwelling, 2011
- 12) Table: Hamilton - Household Types, 2011
- 13) Table: Hamilton (CMA) - % of Total Income Breakdown for Ages 65+, 2012
- 14) Table: Hamilton (CMA) - Sources of Income for Ages 65+, 2012
- 15) Table: Hamilton Consumption Expenditure (All Age Groups), 2012
- 16) Table: Hamilton's Living Wage Monthly Budget Summary By Major Expense Category, 2011
- 17) Table: Single Person Income Sources Comparison, City of Hamilton, 2011
- 18) Table: Hamilton's Living Wage Monthly Budget Summary By Major Expense Category, 2011
- 19) Table: Hamilton's Living Wage Yearly Budget, 2011
- 20) Table: Living Wage Hamilton, 2011
- 21) Table: Single Person Income Sources Comparison, City of Hamilton, 2011
- 22) Table: Spending Habits (Highest to Lowest) of Different Age Groups (Quintiles) to Assess and Compare Spending Priority, 2012
- 23) Table: City of Hamilton Water Consumption Revenue, 2014
- 24) Table: City of Hamilton Population (All Age Groups), 2013
- 25) Table: Total Pension Income Received After 'X' Years of Retirement, Sources of Pension Income, 2011
- 26) Table: The % of People Making '\$X' in the City of Hamilton, Classification by Ward, 2011
- 27) Table: Income Demographics in the City of Hamilton, Classification by Ward, 2011
- 28) Table: Population in Private Households for Income Status, 2011
- 29) Table: In Low Income in 2010 Based on LIM-AT, 2011
- 30) Table: Prevalence of Low Income in 2010 Based on LIM-AT (%), 2011
- 31) Table: Total # of Private Households in the City of Hamilton, Classification by Ward, 2011
- 32) Table: Total Number of Private Households by Age of Primary Household Maintainers, Classification by Ward, 2011
- 33) Table: US Steel Actuarial Reports, 2014
- 34) Table: City of Hamilton Population by Age Group, Classification by Ward, 2011
- 35) Table: US Steel Creditors, 2014
- 36) Image: Total Number of USSC Pensioners by Ward, 2014
- 37) Image: Total Number of USSC Pensioners by Ward as a % of Ward population, 2014
- 38) Image: Total Number of USSC Pensioners by Ward (SSPO), 2014
- 39) Image: Total Number of USSC Pensioners by Ward (Local 1005 and Local 8782), 2014
- 40) Image: Total Number of USSC Pensioners by Ward (Local 8782), 2014
- 41) Image: Total Number of USSC Pensioners by Ward (Ages 65+), 2014
- 42) Image: Map of US Steel Properties, 2014
- 43) Graph: City of Hamilton (CMA) Population Demographics of Seniors, 2011

- 44) Graph: Median Total Income of Seniors in Hamilton (CMA), 2011
- 45) Graph: % of People Making '\$X' of Income Annually (CMA), 2012
- 46) Graph: Average Age of Hamilton Residents (CMA), 2012
- 47) Graph: Median Total Income in Hamilton (CMA), 2012
- 48) Graph: City of Hamilton Population Changes (CMA), 2011
- 49) Graph: The Percentage of Income Earner's Making Over '\$X', 2012
- 50) Graph: Breakdown of US Steel Pension Payouts with CPP and OAP factored in, 2014
- 51) Graph: Hamilton's Living Wage Monthly Budget, 2011
- 52) Graph: Health Indicator Profile - 65 Years and Older, 2011/2012
- 53) Graph: Hamilton - Structural Type of Dwelling, 2011
- 54) Graph: Hamilton - Household Types, 2011
- 55) Graph: Hamilton (CMA) - % of Total Income Breakdown for Ages 65+, 2012
- 56) Graph: Hamilton (CMA) - Sources of Income for Ages 65+, 2012
- 57) Graph: Hamilton Consumption Expenditure (All Age Groups), 2012
- 58) Graph: Hamilton's Living Wage Monthly Budget Summary By Major Expense Category, 2011
- 59) Graph: Single Person Income Sources Comparison, City of Hamilton, 2011
- 60) Graph: Hamilton's Living Wage Monthly Budget Summary By Major Expense Category, 2011
- 61) Graph: Hamilton's Living Wage Yearly Budget, 2011
- 62) Graph: Living Wage Hamilton, 2011
- 63) Graph: Single Person Income Sources Comparison, City of Hamilton, 2011
- 64) Graph: Spending Habits (Highest to Lowest) of Different Age Groups (Quintiles) to Assess and Compare Spending Priority, 2012
- 65) Graph: City of Hamilton Water Consumption Revenue, 2014
- 66) Graph: City of Hamilton Population (All Age Groups), 2013
- 67) Graph: Total Pension Income Received After 'X' Years of Retirement, Sources of Pension Income, 2011
- 68) Graph: The % of People Making '\$X' in the City of Hamilton, Classification by Ward, 2011
- 69) Graph: Income Demographics in the City of Hamilton, Classification by Ward, 2011
- 70) Graph: Population in Private Households for Income Status, 2011
- 71) Graph: In Low Income in 2010 Based on LIM-AT, 2011
- 72) Graph: Prevalence of Low Income in 2010 Based on LIM-AT (%), 2011
- 73) Graph: Total # of Private Households in the City of Hamilton, Classification by Ward, 2011
- 74) Graph: Total Number of Private Households by Age of Primary Household Maintainers, Classification by Ward, 2011
- 75) Contributed Work: "Laws, Regulations, and Other Affecting Pension Plans in Ontario" By: Stephen Bonnar, 2014
- 76) Contributed Work: "The Evidence Regarding the Effects of Pension Loss on Retirees" By: Jo Ann Salci, 2014

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