Reconciling Macro and Micro Evidence on Economic Growth in the Post-Confederation Era

By

Livio Di Matteo
Department of Economics
Lakehead University
Thunder Bay, Ontario, P7B 5E1
807-343-8545
Livio.dimatteo@lakeheadu.ca

Paper Prepared for presentation at the meetings of the Canadian Network for Economic History in Halifax, October 2-4, 2009

DRAFT: NOT FOR QUOTATION

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Introduction

Canadian economic performance was part of the general upturn in economic activity that took hold of world economies after 1820[2] and Canadian economic growth in the late 19th and early 20th century was truly impressive. Whereas in 1870, the value of Canadian real per capita GNP was 61 percent that of the United States and 47 percent that of the United Kingdom, by 1930 it had risen to 88 percent that of the United States and 124 percent that of the United Kingdom (See Figure 1).[3] Indeed, over the period 1870 to 1930, the average annual rate of growth of real per capita GNP was 0.6 percent for the UK, 1.7 percent for the United States and a 2.3 percent for Canada.[4]

Economic growth and development as measured by rising GDP is also accompanied by change in other aggregate indicators such as growth in per capita capital stock, a rise in per capita energy consumption and declines in hours worked.[5] Given these impressive rates of Canadian economic growth, one would also expect to see some translation of this robust aggregate growth into levels of personal and individual welfare such as wealth and asset holding. Yet, it appears that the impressive rates of accumulation in real per capita income in Canada were not accompanied by commensurate increases in the levels of real per capita wealth holding. For example, evidence from probate records for Wentworth County Ontario utilized in this paper shows that average real wealth (1900 dollars) over the period 1872 to 1927 was essentially constant (See Figure 2).[6] Evidence for another Ontario region over

[1] The financial assistance of the Social Sciences and Humanities Research Council of Canada is gratefully acknowledged and the helpful comments of Mike Shannon.

[2] Maddison (2005).

[3] Data Sources for Figure 1: EH.Net, International Historical Statistics (B.R. Mitchell; 1988) and Green and Urquhart (1987)

[4] This period was not without discontinuities or changes in the rate of growth. See Green and Sparks (1999) and Inwood and Stengos (1991). As well, there were regional differences in output and output growth. See Inwood and Irwin (2002).

[5] Maddison (2005: 14).

[6] Median real wealth displayed a similar performance. Median real wealth (1900 dollars) was 2,484 dollars in 1872, 2,067 dollars in 1902, 2,290 dollars in 1912 and 2,142 dollars in 1927.

approximately the same time period – the Thunder Bay District – shows large increases in wealth after 1900 but a collapse after 1914 leaving both average and median real wealth by the 1920s no higher than the 1880s.[7] The compelling question is why?

There are a number of potential explanations for this result. It is possible that increases in individual wealth somehow lag increases in GDP and aggregate activity and that the slow economic growth of the immediate post-1870 era translated into less wealth accumulation in the early part of the twentieth century while the post 1900 boom would not be translated into wealth increases until decades later. Such an explanation, however, does not explain why when the wealth data is broken up into various sub-categories it shows tremendous growth for some categories and stagnation for others. Another possibility is that since this wealth data is in real dollars, the decline in prices prior to 1900 has raised the value of pre 1900 real wealth while the inflation of the post 1900 period has depressed it.[8] However, if this is the case it means that the purchasing power of the wealth did not keep up with inflation and therefore does not represent a real accretion to economic welfare.

This paper sets forth evidence arguing that the wealth figures for Wentworth County likely capture an economy in transition – with winners and losers. When wealth is broken down by gender, occupation and asset categories, the results shows that the wealth of women grew steadily, while that of men does not show similar growth. Moreover, the asset categories of mortgages, stocks, securities and life insurance saw an increase in wealth while live stock, real estate and cash saw declines. As well, the occupational categories that saw increases in wealth include manufacturing, transportation and communications, laborers, government and personal service – all areas of growth in the new economy of the late nineteenth century. This suggests that the economic change of the post-confederation era, which combined the erection of an east-west economy along with the development of manufacturing and services and the relative

[7] Di Matteo (2004).
[8] The wealth data is this paper is deflated using the Green-Urquhart implicit price index. Green and Urquhart (1987) show prices declining slightly from 1870 to 1900 and then practically doubling over the next 25 years.

decline of agriculture, benefitted wealth accumulation by those employed in manufacturing, government and services as well as laborers and women. It also favored the accumulation of "new economy" financial assets – in particular stocks and securities.

The Data: Context, Sources, and Construction

The wealth data are from Wentworth County, at the head of Lake Ontario and the time frame is from 1872 to 1927.[9] While distant from the Prairies, the Hamilton-Wentworth region was affected by the early 20th century boom period and saw substantial population growth. The population of Wentworth County was 57,599 in 1871 and by 1911 had grown to 111,706 and went on to reach 153,567 by 1921. Between 1871 and 1921, the population of Wentworth County grew by 167 percent while Ontario's population grew 81 percent and Canada's population grew 138 percent.

Wentworth County comprised the city of Hamilton and the town of Dundas plus the adjoining rural townships of East and West Flamborough, Beverly, Ancaster, Glanford, Binbrook and Saltfleet. Wentworth County has a history of permanent European settlement dating from the late eighteenth century and by the latter half of the nineteenth century was undergoing a process of urbanization and industrialization. Hamilton and Dundas both aspired to be regional centers but by 1850 Hamilton emerged the winner and proceeded to dominate its hinterland. Hamilton's prominence as a commercial and later as an industrial centre was the result of its strategic position at the head of Lake Ontario. This enabled it to reap the benefits of being a transshipment point. With the development of the Prairie wheat economy, Hamilton acquired an industrial sector that emphasized iron and steel products.

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[9] This period spans the era of Canadian economic history known as the "Wheat Boom". For an overview of the wheat boom debate and its impact on Canadian economic growth, see Chambers and Gordon, "*Primary products and economic growth*", Pomfret, *Economic development*, pp. 182-211. See also Norrie (1975). Expanded analysis of the impact of the wheat boom includes the impact of tariffs, the value of immigrant capital and the impact on wages. See Lewis,"*Canadian wheat boom*," Lewis, "*Farm settlement*", Caves, "*Export-led growth*". Urquhart concludes, "...the evidence of our data supports most strongly the presumption that the growth and many of the changes in the Canadian economy were a consequence of the settlement of the Prairies." Urquhart, "*New estimates*", p. 61; See also Green and Urquhart (1987) and Urquhart (1993).

The primary data source is the probate records of the Ontario surrogate courts. Under the *Surrogate Courts Act, 1858* (Statutes of Canada, 22 Vict., Cap. 93, 1858) a surrogate court with the power to issue grants of probate and administration valid throughout the province was established in each Ontario county, replacing the centralized Court of Probate established in 1793. Probate was an institutional arrangement transferring property from the dead to the living. Application for probate was made in the county or district where most of one's property was located. The probate process granted administration over the estate of the deceased as well authenticated the will and provided evidence as to the character of the executor.[10] In intestate cases (without a will) the application to the court for administration was made by an interested party, (usually the widow or next of kin but sometimes a creditor) and once granted, distribution of the estate was made according to law.

The data for Wentworth County contains 444 core probated decedents for the years 1872-1902 collected previously which were then augmented with the addition of 76 decedents for 1892 and 54 for 1902 who could not be traced for the original data set but for whom data on real and personal estate and other characteristics was available from probate.[11] This increases the total data set available for the 1872 to 1902 period to 574 individuals. To this was added data for all the estates probated for the years 1907, 1912, 1917, 1922 and 1927 which adds another 1,905 probated decedents with data on their residence, occupation, marital status, number of children, date of death, whether they had a will and the value of the estates. The early years of this data set are smaller. There are 50 observations for 1872, 79 for 1882, 230 for 1892, 215 for 1902, 277 for 1907, 332 for 1912, 380 for 1917, 483 for 1922 and 470 for 1927 for a total of 2,516 individuals.[12]

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[10] Howell (1880: 155).

[11] For information on the collection of the original Wentworth County Data set of 405 census-linked observations see Di Matteo and George (1992). An additional 39 decedents for 1902 were census-linked later bring the data up to 444. For 1872 and 1882, probate only provides personal estate and therefore the real estate data for these original census-linked estates was obtained from assessment rolls and therefore no additions were made to the data for these years. However, had these estates been utilized there would be a total of 72 for 1872 and 115 for 1882.

[12] Approximately 37 of the individuals in the 1927 data actually had an application date for probate in 1926 but their files were located within the date sequence for 1927.

Table 1 provides summary statistics for the data set while Table 2 describes the occupational structure of the probated decedents. Table 1 shows that average nominal wealth in this data set was 10,513 dollars of which an average of 3,536 dollars was held as real estate. Approximately 68 percent of decedents had wills, 14 percent were farmers, 63 percent were male and 71 percent were urban with being urban defined as a resident of either Hamilton or Dundas. In addition, 50 percent of decedents reported being married while 33 percent had a deceased spouse and 17 percent were single.

Table 2 provides some information on occupational distribution based on two classifications – one from the categories of the 1911 Census of Canada and one from a socio-economic classification developed by Michael Katz (1975). The Katz classification shows that the probated decedents were disproportionately from higher socio-economic classifications aside from the large the unclassifiable category, which was composed mainly of women. The census based classification shows that 15 percent of decedents reported occupations – in agriculture[13], 4 percent building trades, 8 percent manufacturing, 4 percent in professions, 6 percent in trade, 3 percent in transport and communications and 4 percent were labourers. Furthermore, 11 percent of these decedents reported being retired while another 39 percent reported no occupation and therefore was indeterminate – again, most of this category was women – only about 5 percent of female decedents reported an occupation.

[13] Only 4 out of 927 women in the data set reported agriculture as a occupation and hence Table 2 shows 0 percent due to rounding.

Microeconomic Evidence and Macroeconomic Change

The macro economic changes of the late nineteenth century saw urbanization, the growth of financial markets and new financial saving instruments, industrialization and the decline of agriculture, which one should expect to be reflected at the micro economic level in wealth data. Ontario was no exception as the period of the late nineteenth and early twentieth centuries saw it undergo a massive transformation from a commercial-agricultural society to an industrial society that was predominantly urban.[14] Yet, a LOWESS smooth of wealth on year for the Wentworth County data finds that that the level of wealth was surprisingly stagnant (See Figure 3).[15] Moreover, a simple OLS regression of the log of real wealth on gender, urbanization, occupation, number of children, marital status, interacted testacy and literacy and the year probated yields a significant negative time trend to real wealth (See Table 3 for the variable definitions and Table 4 for results) showing a decline of 1.3 percent per year.[16] These results seem at odds to what might be expected during a time of such significant economic growth and development.

The period from 1870 to 1930 was an era of profound economic change in Canada and Ontario marked by the erection of an industrial economy. The agricultural sector's share of GDP in Canada declined from 38 percent in 1870 to 21 percent by 1920.[17] Ontario's rural population share declined from 78 percent in 1871 to 39 percent by 1931.[18] Meanwhile, in Ontario, the proportion of men gainfully employed in agriculture declined from 52.2 percent in 1891 to 27.2 percent by 1931. As for other sectors, the proportion of gainfully employed men employed in trade and finance rose

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[14] See Drummond (1987).

[15] LOWESS is a non-parametric regression technique, which estimates a line of best fit without assuming a specific functional form. As well, LOWESS is not as sensitive to the presence of outliers in the data. In fitting LOWESS curves, the crucial decision involves the size of the smoothing parameter or bandwidth over which the locally weighted regressions used in the estimation process are estimated. Larger bandwidths provide greater degrees of smoothing while smaller bandwidths provide more variation in the final smoothed curve. For references on LOWESS see Cleveland (1979, 1985 and 1993).

[16] The specification was log-linear and was estimated using STATA 10.

[17] See Urquhart (1993).

[18] Census of Canada.

from 6.2 percent in 1891 to 10.2 percent by 1931 while the corresponding figures for women were from 3.8 to 9.2 percent – suggesting much larger employment gains. In total, there were 636,000 gainfully employed men in Ontario in 1891, which rose to 1,097,000 million by 1931 – a 72 percent increase. Meanwhile, the number of gainfully employed women rose from 96,000 in 1891 to 249,000 by 1931 – an increase of 159 percent – suggesting that employment opportunities for women grew substantially during this period.[19]

The post-Confederation period also saw the expansion of Canadian savings rates and growth of the financial sector. The aggregate saving ratio rose from 8.7 percent of GDP in the 1870s to 15.7 percent by the first decade of the 20th century.[20] In addition, the value of financial assets in 1900 dollars between 1870 and 1910 rose from 119.2 million to 1.5 billion dollars implying an annual growth rate of 6 percent. Growth was especially pronounced in the assets of chartered banks, life insurance companies, mortgage and loan companies and trusts.[21] Indeed, the Wentworth County data shows a major change in portfolio composition over time with a decline in the share of real estate and an increase in the share of financial assets – particularly stocks and share (See Figure 4). Between 1882 and 1927, real estate as a share of wealth declined from 42 to 27 percent while stocks rose from 5 percent to 27 percent.

The effects of all this economic change on wealth are better revealed by this data once it is disaggregated into groupings. The categories for examining these changes are gender, occupation and asset categories and LOWESS smoothes of real wealth versus year for the Wentworth county probated decedents are presented. For example, the results in Figures 5 show that male real wealth was greater than female real wealth in Wentworth County but that over time the gap declined. Figure 5 shows that female wealth rose continually in Wentworth County over the period 1872 to 1927 while male wealth rose from 1872 to 1892 but then actually declined so that by 1927, female wealth level was much closer to that of males compared to 1872. While average female wealth as a percentage of male average wealth was 17 percent in 1872, by 1927 this had risen to

[19] Drummond (1987: 363-363).
[20] Green and Urquhart (1987), "New Estimates", p. 187.
[21] Neufeld (1972)

61 percent. It appears that improvements to the level of female property ownership did occur and in Wentworth County, this 55-year period saw the continual growth of average female wealth to male wealth to the point where average female wealth represented nearly two-thirds of male wealth.

The increase in female wealth coincides with the increases in female employment and economic opportunity that were underway in the late nineteenth and early twentieth centuries as well as the institutional changes of the women's property acts. During the course of the nineteenth century, married women's property laws were passed throughout English speaking North America and England beginning in the 1830s in the United States.[22] In Ontario, these were the Married Women's Property Acts of 1859, 1872, and 1884 and the Married Woman's Real Estate Act, 1873[23] which allowed married women to dispose of real estate as if *feme sole.*[24] Of these, the most transforming was The Married Woman's Property Act (1884)[25] which enabled a married woman to dispose of, by will, any real or personal property as her separate property in the same manner as if *feme sole* without any intervention of a trustee.[26] Essentially, before 1884, any property that women brought into a marriage essentially became her husband's property while after 1884 a woman could maintain her own separate ownership.[27]

In Figure 6, the changes in real wealth over time are explored by occupational classification. Over the period 1872 to 1927, there are non-ambiguous overall increases in real wealth for the occupational categories of government, transportation and communications, and laborers. This suggests that the growth and development of the Canadian state and the expansion of east-west transportation infrastructure were labour intensive activities that served to generate economic opportunity for those employed not only in civil government and the transportation sector but also for general laborers.

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[22] See Beckert (2008:93-94).
[23] Statutes of Ontario, 36 Vict., Cap. 18.
[24] That is, as if an unmarried woman. A married women, on the other hand, was termed a "feme covert" or covered woman because her legal interests were "covered" by those of her husband. See Shammas et al., p.25.
[25] Revised Statutes of Ontario, 1887, Cap. 132.
[26] Howell, 1895, p. 55.
[27] For a detailed account of women's property law in nineteenth century Canada, see Backhouse (1988). See also Chambers (1997). For an examination of marriage contracts and aspects of property law in Quebec, see Hamilton (1999).

Other occupational sectors show more mixed results. For example, building trades shows a decline until the period of the First World War after which there is a small increase in real wealth while agriculture shows an increase until the 1890s after which there is continual decline. The real wealth of those employed in personal services declines until the 1890s after which there is a period of increase while manufacturing exhibits a similar pattern with the increase beginning during the First World War. The wealth of those employed in professional occupations sees a steady increase until the late 1920s when there is a drop while those employed in trade and merchandising see an increase in their wealth until the period of the First World War which is then followed by a decline. The First World War seems to be a watershed period for wealth accumulation for a number of occupational groups – particularly manufacturing and the building trades – and perhaps reflects the expansionary nature of that event on construction and industrial development.[28]

Figure 7 provides LOWESS smoothes of real wealth versus year for a number of asset categories. There are unambiguous declines in the categories of household goods and furniture, farm implements and horses. As well, real estate shows a considerable decline after the 1890s[29] suggesting that the real estate crash of the early 1890s in the Golden Horseshoe area may have had lingering effects via depressed prices.[30] Indeed, the value of farms in Ontario in nominal price per acre remained flat between 1901 and 1931 which in the presence of inflation means that the real value of any given acreage was likely cut in half over this period.[31]

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[28] The period of the First World War has been seen as a defining economic event in Canadian economic history in terms of its contribution to industrial development and the shift in the role of government to a more interventionist stance. See Norrie et. al.,4th edition, pp. 272-277.

[29] Recent new estimates of regional transactions-based land prices for Augusta-Elizabeth Townships in Eastern Ontario, Medonte Township in Central Ontario and Wellington County in southwestern Ontario also reveal price declines from 1890 to 1895. See Emery, Inwood and Thille (2007).

[30] Darroch (1983) using assessment rolls also documents a decline in real estate values in Toronto during the 1890s.

[31] According to the 1931 Census – the average price per acre of farm land in Ontario was $25.14 in 1901 and $25.65 in 1931. Census of Canada, Agriculture Volume, Table 5, p. 383

There are also declines in both stock in trade and book debts and promissory notes reflecting the decline of small local business and personal lending and the rise of larger retail and business operations. Stocks and securities however show substantial increases over time suggesting that they were becoming a much more accepted and important component of wealth portfolios while traditional mainstays such as mortgages and cash in bank begin to decline after 1910. Indeed, the buying and selling of stocks and securities was little known in pre-confederation Canada and by the 1920s these assets were being sought by Canadians from a variety of socio-economic levels[32] that resulted in a stock-market frenzy that culminated in the crash of 1929. In the case of stocks, these wealth figures may indeed be picking up an asset bubble in the post 1920 period.

[32] Armstrong (1997).

Conclusion

Canada experienced robust growth in real per capita output in the post-Confederation era particularly after 1900. However, aggregate output statistics that show a period of economic growth do not mean that a rising tide lifts all boats. Indeed, rising economic output for a national economy masks economic change and tumult that affects economic sectors differently as well as individuals in terms of their level of material welfare. Wealth data from Wentworth County for the period 1872 to 1927 when examined in terms of annual averages seems at odds with the picture of rising GNP for Canada during the late nineteenth and early twentieth centuries. Indeed, it paints a picture of relatively stagnant wealth. Perhaps the region was unique and was not a substantial participant in the economy activity that characterized Canada during the late nineteenth century. However, given that Wentworth County was adjacent to Toronto and in the heart of southern Ontario's manufacturing belt, the latter seems unlikely.[33] Indeed, the rapid population growth of the region after 1870 makes this even more unlikely as economic growth and opportunity are population drivers.

The divergence between aggregate wealth performance with aggregate national income may also be due to the data source not capturing all wealth either because the asset categories do not reflect the modern economy or perhaps because the nature of the data source and who probated changed over time. For example, given that probate inventories capture the assets of the deceased at the end of their lives, the stagnant wealth may be capturing economic change with a lag. However, this too is unlikely given that if it were the case one would expect to see stagnant wealth also when the probate data was broken down into categories of gender, occupational status and asset classes. However, this is not the case.

The seemingly placid trend in overall wealth levels masks tumultuous economic change across gender, occupation and asset categories. Women's wealth rose while that

[33] Ontario in the nineteenth century had the highest per capita output levels in Canada. See Inwood and Irwin (2002).

of men actually declined – a function perhaps of institutional changes in property laws and a transfer of wealth from men to women – or a result of the decline of agriculture, which would have hit male wealth portfolios harder combined with a rise in new employment opportunities that women were able to take advantage of. Individuals employed in the public sector, transportation and communication and general laborer saw continuous growth in wealth during this period while those in manufacturing and the building trades saw their fortunes take off after the First World War. Finally, those able to take advantage of both the new employment opportunities and put their wealth in the expanding investment opportunities afforded by stocks and securities also saw a substantial increase in wealth. The probated wealth of Wentworth County captures an economy in transition in a manner that aggregate GNP or GDP statistics cannot.

Table 1

Summary Statistics for the Data Set

Variable	Means ALL
BASIC CHARACTERISTICS	
N	2516
Year Probated	1912
Year of Death	1909
Proportion Testate	0.68
Proportion Farmer	0.14
Number of Children	2.14
Proportion With Children	0.62
Proportion Male	0.63
Proportion Urban*	0.71
NOMINAL WEALTH ($)	
real estate	3536
total wealth	10513
PLACE OF RESIDENCE	
hamilton	0.66
dundas	0.05
eastflam	0.02
westflam	0.04
beverly	0.05
ancaster	0.04
barton	0.02
binbrook	0.02
glanford	0.02
saltfleet	0.04
waterdown	0.01
non wentworth county	0.03
MARITAL STATUS	
married	0.50
spouse deceased	0.33
single	0.17

Notes:
* Urban defined as resident of Hamilton or Dundas for Wentworth County.

Table 2

Occupational Statistics

Variable	Means ALL
CENSUS OCCUPATIONS	
agriculture	0.15
buildingtrades	0.04
service	0.02
government	0.03
fishing&hunting	0.00
forestry	0.00
manufacturing	0.08
mining	0.00
professions	0.04
trade	0.06
transport & communication	0.03
laborer	0.04
retired	0.11
none or indeterminate	0.39
KATZ OCCUPATIONS*	
occ1	0.15
occ2	0.25
occ3	0.11
occ4	0.03
occ5	0.04
occ6	0.41

Note:
* These are socio-economic occupational status categories with OCC1 as the highest, OCC5 as the lowest and OCC6 as an unclassifiable (See Katz, 1975, 343-348). Category OCC1, for example contains lawyers, merchants, doctors, etc...Category OCC2 includes farmers, minor government officials and small businessmen. Category OCC3 includes skilled tradesmen such as blacksmiths while OCC4 contains barbers and restaurant workers. Category OCC5 is mainly unskilled labour while OCC6 is unclassifiable containing mainly women.

Table 3
Regression Variables

Lrwelt	The natural log of real wealth (1900 dollars).*
Lrrealest	The natural log of real real estate (1900 dollars)
Lrfin	The natural log of real financial assets (1900 dollars)
Male	1 if male, 0 otherwise
Children	Number of children
Yearprob	Year probated.
Yeardeath	Year of Death
Yearwill	Year of will.
Testsignname	1 if Testate and Able to Sign name, 0 otherwise.
Occupational Categories	
Agriculture	1 if agriculture, 0 otherwise
Building Trades	1 if building trades, 0 otherwise
Personal Service	1 if personal services, 0 otherwise.
Government	1 if government, 0 otherwise.
Fish & Hunting	1 if fishing and hunting, 0 otherwise.
Forestry	1 if forestry, 0 otherwise.
Manufacturing	1 if manufacturing, 0 otherwise.
Mining	1 if mining, 0 otherwise
Professional	1 if in a profession, 0 otherwise.
Trade & Merchandising	1 if trade and mechandising, 0 otherwise
Transport & Communication	1 if transport or communication
Labourer	1 if labourer, 0 otherwise
Retired	1 if retired or gentleman, 0 otherwise.
Occupation Indeterminate	1 if occupation unclassifiable or not given, 0 otherwise.
Urban	1 if a resident of Hamilton or Dundas, 0 otherwise.
Married	1 if married, 0 otherwise.
Marspd	1 if married but spouse deceased, 0 otherwise.
Single	1 if not married, 0 otherwise.

*Wealth deflated using the Green-Urquhart implicit price index. See Green and Urquhart (1987).

Table 4: Regression Results

Log of real wealth dependent variable
Heteroskedasticity corrected [yearprob weighting variable]

Source	SS	df	MS	Number of obs =	2516
				F(20, 2495) =	31.26
Model	1216.39525	20	60.8197626	Prob > F =	0.0000
Residual	4854.78092	2495	1.94580397	R-squared =	0.2004
				Adj R-squared =	0.1939
Total	6071.17617	2515	2.41398655	Root MSE =	1.3949

lrwelt	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
yearprob	-.0128112	.0023822	-5.38	0.000	-.0174825	-.0081399
testsignname	.9831914	.0615761	15.97	0.000	.8624459	1.103937
male	.1700815	.1257002	1.35	0.176	-.076406	.4165691
children	.048624	.0131213	3.71	0.000	.0228941	.0743538
married	.3638235	.084401	4.31	0.000	.1983203	.5293267
marspd	.3908874	.0933493	4.19	0.000	.2078374	.5739373
buildingtr~s	-.5920963	.1622579	-3.65	0.000	-.9102702	-.2739224
service	-.285146	.2370262	-1.20	0.229	-.7499342	.1796423
government	-.5212002	.196212	-2.66	0.008	-.9059553	-.136445
fishhunt	-.0874951	.8101477	-0.11	0.914	-1.676126	1.501136
forestry	3.631687	1.407199	2.58	0.010	.8722885	6.391086
manufact	-.1844746	.1364143	-1.35	0.176	-.4519716	.0830223
mining	.125831	1.397215	0.09	0.928	-2.613989	2.865651
profession	.2564202	.164079	1.56	0.118	-.0653248	.5781653
trade	.2931294	.1462914	2.00	0.045	.0062644	.5799944
transcomm	-.5862773	.2021966	-2.90	0.004	-.9827676	-.1897869
laborer	-1.578144	.1715838	-9.20	0.000	-1.914605	-1.241683
retired	.0131813	.1218445	0.11	0.914	-.2257454	.252108
occindeter~e	-.5010592	.1507793	-3.32	0.001	-.7967246	-.2053938
urban	.0231431	.076057	0.30	0.761	-.1259982	.1722843
_cons	31.36212	4.530748	6.92	0.000	22.4777	40.24653

Figure 1: Real Per Capita GDP (1900=100): 1870-1930 (U.S. dollars)

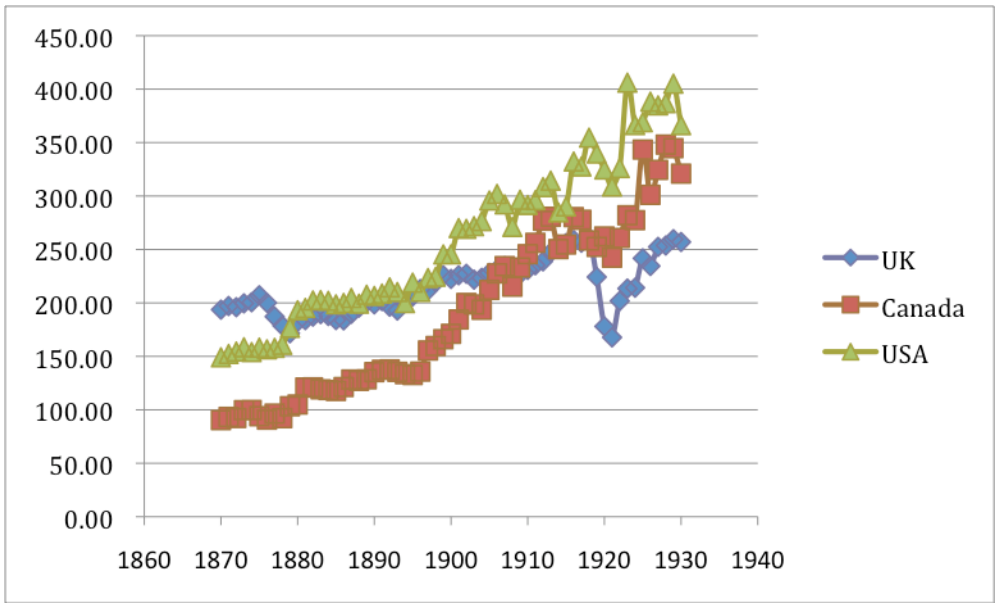


Figure 2: Average Wealth (1900 dollars) for Wentworth County, Ontario, 1872 to 1927

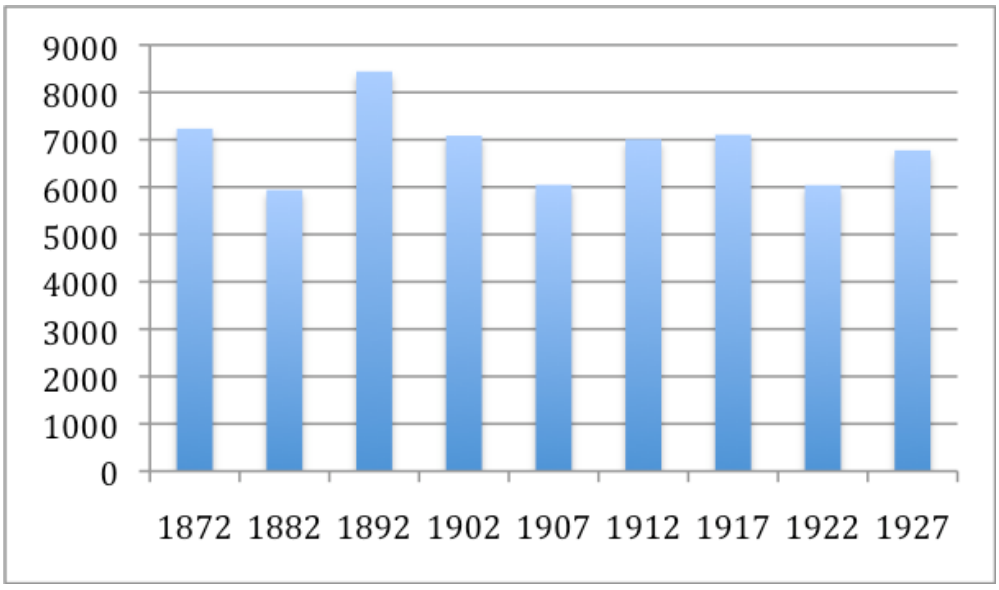


Figure 3: LOWESS Smooth of Real Wealth versus Year (bandwidth=0.8), Wentworth County, 1872-1927

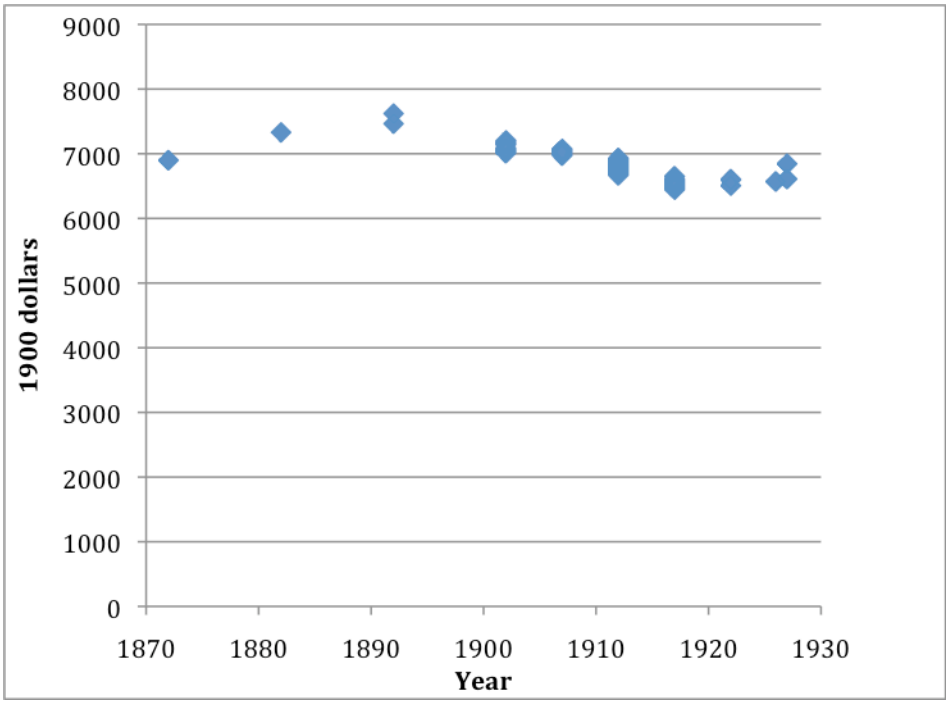
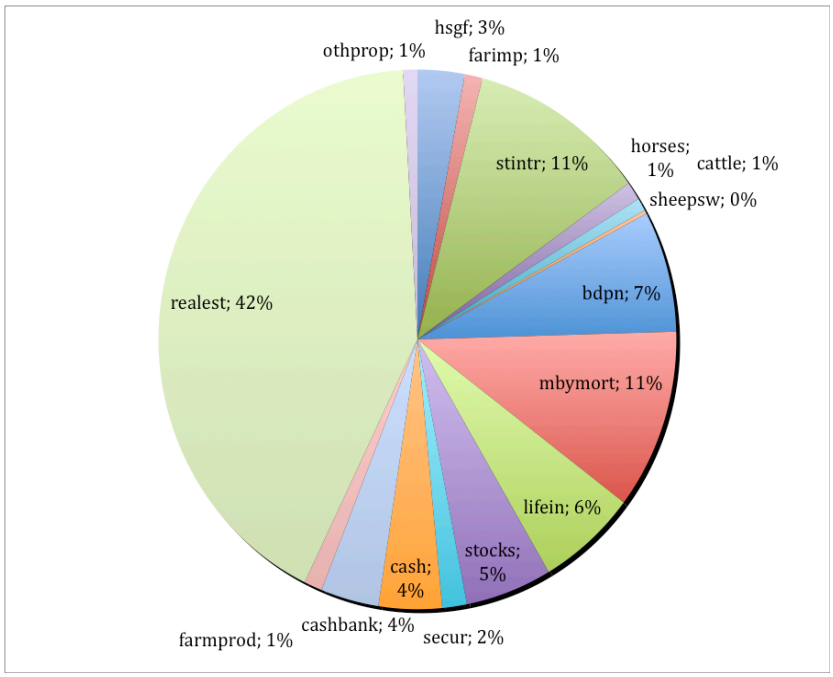


Figure 4: Wentworth County Portfolio Composition-1882 versus 1927

1882



1927

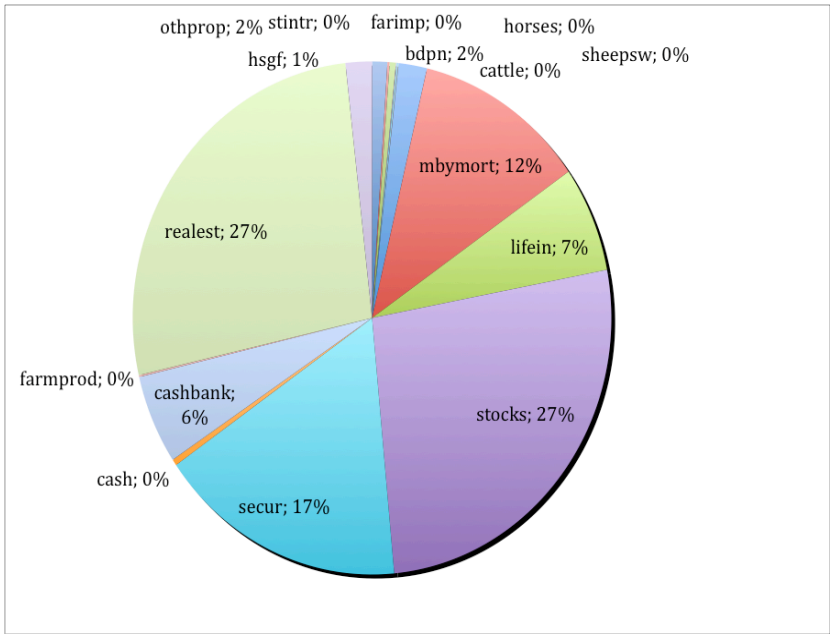


Figure 5: LOWESS Smooth of Real Wealth versus Year for Wentworth County Males (malerweltsm8) and Females (femaleweltsm8)

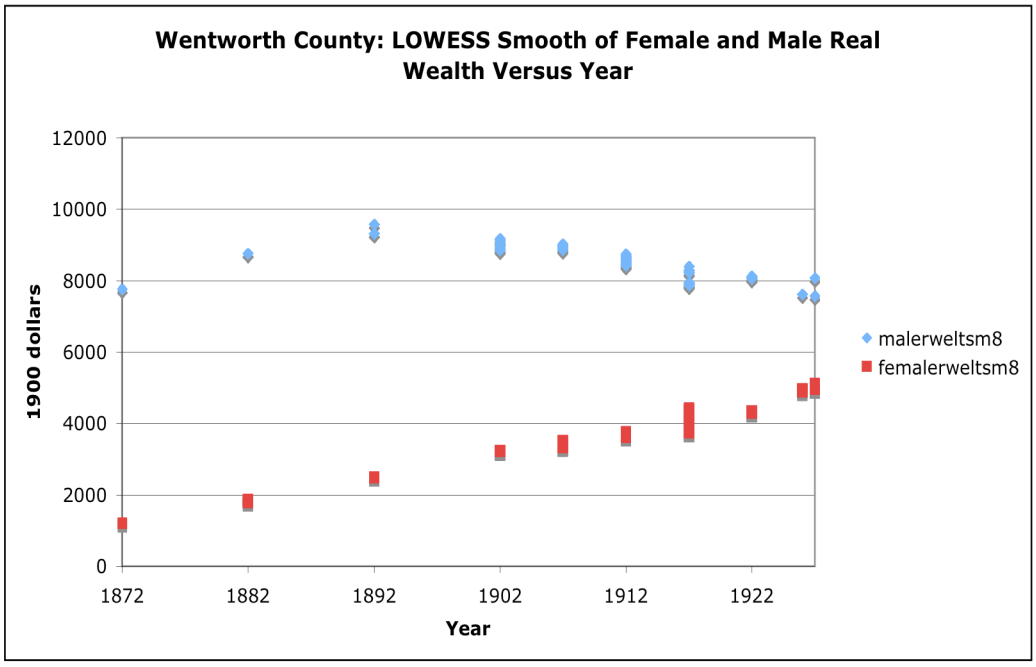
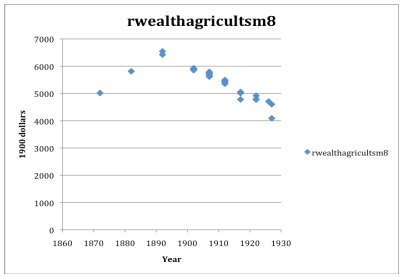
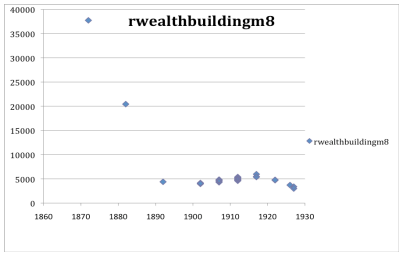


Figure 6: LOWESS Smoothes of Real Wealth vs Year for Wentworth County by Occupational Categories (bandwidth=0.8)

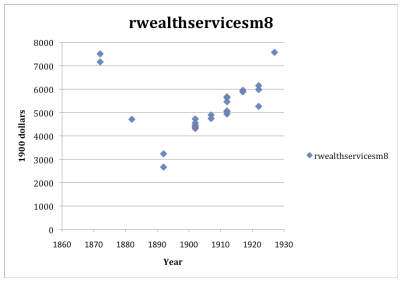
a) Agriculture



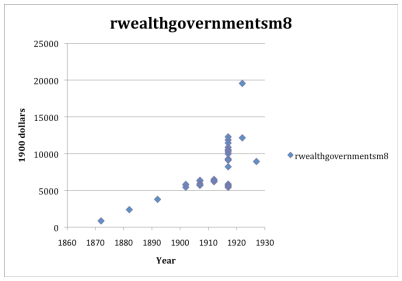
b) Building Trades



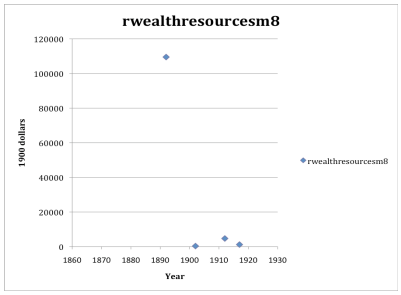
c) Personal Service



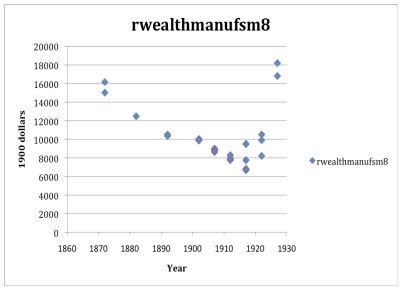
d) Government



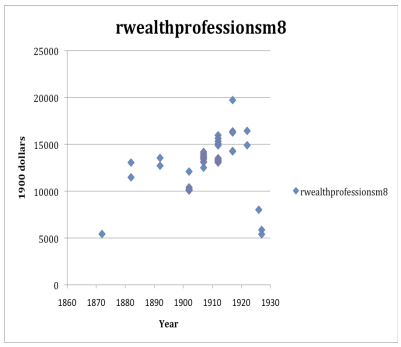
e) Resources (Fish & Hunting, Forestry, Mining)



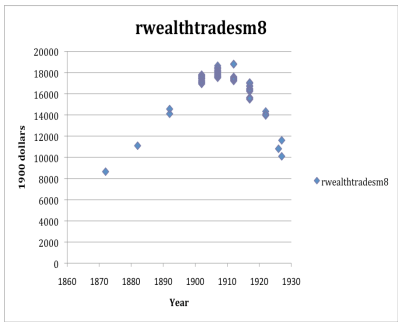
f) Manufacturing



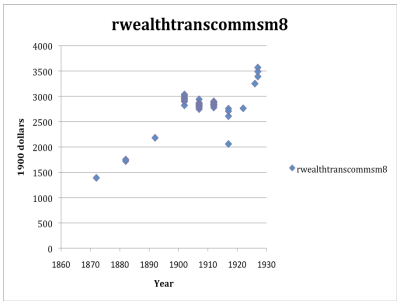
g) Professional



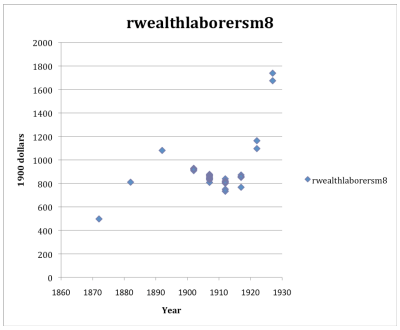
h) Trade & Merchandising



i) Transport & Communication



j) Laborer



k) Retired

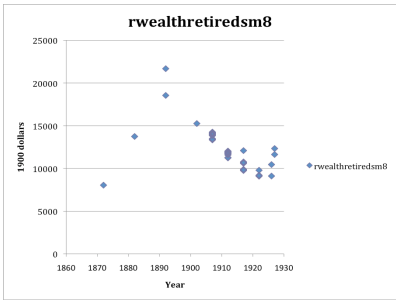
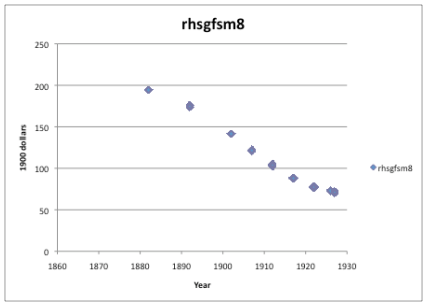
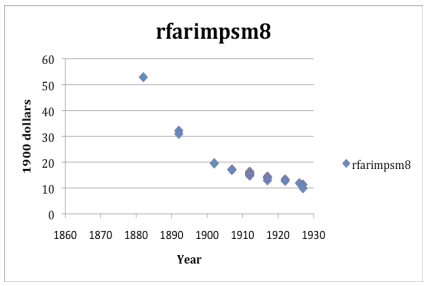


Figure 7: LOWESS Smoothes of Real Wealth vs Year for Wentworth County by Selected Asset Categories (bandwidth=0.8)

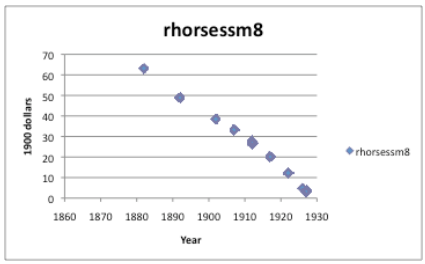
a) Household Goods and furniture



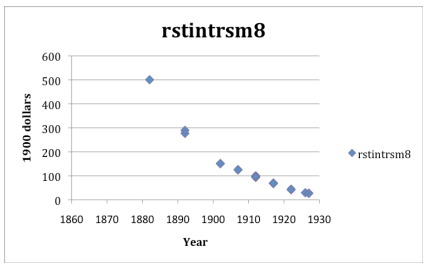
b) Farming Implements



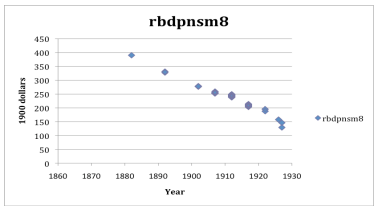
c) Horses



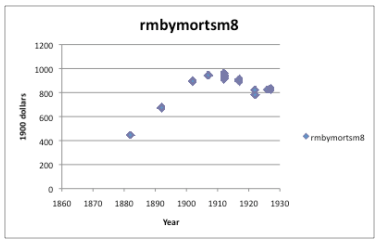
d) Stock in Trade



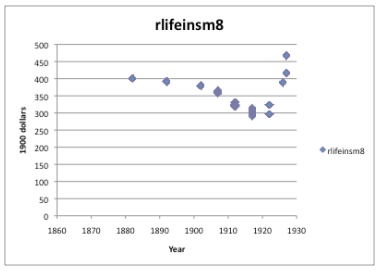
e) Book Debts and Promissory Notes



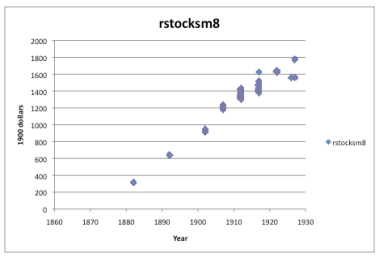
f) Moneys Secured by Mortgage



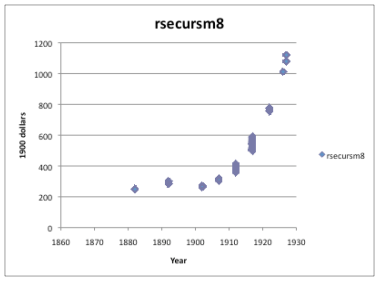
g) Life Insurance



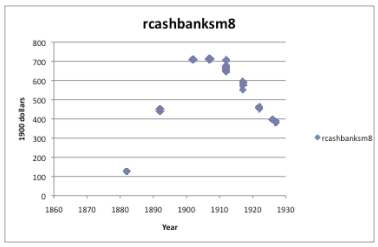
h) Shares and Stocks



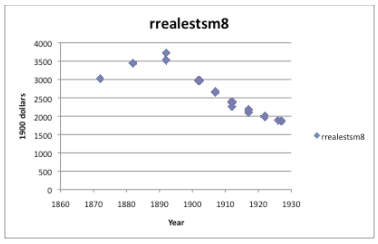
i) Securities



j) Cash in Bank



k) Real Estate



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