

7

First Nations Trade, Specialization, and Market Institutions: A Historical Survey of First Nation Market Culture

André Le Dressay, Normand Lavallee, and Jason Reeves

Introduction

In February 2008, Manny Jules, chief commissioner of the First Nations Tax Commission (FNTC) gave a speech to a group of First Nations in Vancouver about the link between First Nation pre-contact market activities and his proposed agenda to create the institutional framework to support modern markets on First Nation lands:

There used to be millions of us. Although there were no population counts, best estimates suggest that there were at least 40 million of us in the Western Hemisphere in 1491. In 1542, Las Casa, the first Spaniard to make a population guess said, “it looked as if God had placed all of or the greater part of humanity in these countries.”

Market economies are not foreign to us. We created them ourselves. We traded goods over hundreds of miles. The Mayan had a complex trade network. How could corn be used all throughout the Americas before contact, if we did not trade? How could pipestone end up in our territory before contact when it only comes from Pipestone, Minnesota, if we did not trade?

Trade cannot be financed without capital. We had to build transportation methods such as boats. We had to build large public buildings and maintain armies to provide order. These required community investments that were based on a future return to the community and to individuals.

We had to create institutions to facilitate trade. From Alaska to California we agreed to a common trade language, Chinook. We recorded transactions relating to labour and goods. We achieved this because we created a system that was supportive and encouraged individual initiative.

This is the subject of our paper. In particular, we found evidence that First Nations had six distinctive elements of market economies in the pre-contact and early contact periods.

In the first section of this paper we describe six identifiable characteristics of market cultures: (1) Specialization in production, (2) Trading networks (exports and imports), (3) Public infrastructure to support trade, (4) Commercial laws,

standards, and dispute resolution processes, (5) Mediums of exchange, and (6) Property rights.

We identify all these market characteristics among First Nations¹ within the Americas, with particular emphasis on First Nations located in Canada, in both pre-contact and early contact periods. Our evidence is summarized in the second section of this paper.

Although not an exhaustive survey of the evidence, this paper identifies twenty-five examples of specialization in trading networks among First Nations in the Americas, and presents three specific examples of complex trading networks. We present one example of First Nation public infrastructure in Canada, and describe two types of commercial standards. Three First Nation mediums of exchange from across Canada and two individual property rights systems are also presented.

This paper concludes that pre- and early contact First Nations in Canada had all of the elements associated with successful market culture, and recent legislation provides opportunities for contemporary First Nations to revive their traditional market cultures.

What Are Markets?

Voluntary Exchange

There is a widespread consensus across a broad economic spectrum as to what constitutes a market; it ranges from Adam Smith's *Moral Philosophy* to Karl Marx's *Das Kapital* to Milton Friedman's *Free to Choose* to Alfred Marshall's *First Principles of Economics*. For the purposes of this paper, a market is where voluntary and efficient exchange between a buyer and a seller takes place and this exchange is facilitated by some informal and/or formal rules and infrastructure.

Markets are social institutions. They facilitate and support voluntary exchanges between parties. These exchanges are voluntary because for them to occur, both parties have to derive a benefit. Therefore, there is an incentive for trade. If both parties did not benefit, the trade would not occur.

This explains the popularity and pervasiveness of markets as social institutions throughout history and throughout all parts of the world. They exist everywhere because there are mutual gains from voluntary trade.²

Markets provide powerful individual incentives for creativity, innovation, and technological advances that significantly raise the standard and quality of life. Markets have helped lift millions from poverty.³ They have helped governments raise trillions of dollars in taxes to improve public health, education, and living conditions.

Creating the right conditions for markets promotes economic growth. Economic growth is almost always measured as the per capita increase in the value of national or provincial production or income from one year to the next. During times of economic expansion, the growth rate is usually quite small (i.e.,

less than 5 percent in Canada). The impact of growth over time, however, can be quite dramatic. For example, if Canada had an average economic growth rate of 3 percent for twenty-four straight years, economic output per capita would double. Phrased differently, the standard of living for the average Canadian would have doubled in a generation. Moreover, assuming a constant rate of taxation during this time, tax revenues for governments would have also doubled so that improved social services and infrastructure could be financed. The opposite of economic growth is a recession. Long-term recessions lead to a falling standard of living and reduced tax revenues.

Market Players and Types

In every market there are three basic players—households, businesses, and governments. Most market activity takes place between households and businesses. Voluntary exchange between these two players can occur in three broad types of markets—goods and services, labour, and capital. These market types can be local, regional, national, or international/global.

We are most familiar with the goods and services markets where we as households buy what we need and, in some cases, want from usually well-stocked sellers. In this regard, businesses specialize in a particular activity and sell products and services. In the labour market, households sell their time to businesses that use labour to make goods and services to sell to households. In the capital markets, saving households and businesses provide money to lend to borrowing households and businesses. Borrowing households use capital to consume or possibly invest, and borrowing businesses use capital to invest. In the fall of 2008, the world became painfully aware of the consequences from reduced business and household borrowing.⁴ Of course, in each of these markets businesses can buy goods and services and labour from other businesses and at a smaller scale, households can interact with each other as well.

The role of the third player, government, is more complicated. Governments certainly participate in some market activities. They purchase goods and services from businesses, buy labour from households, and can, in theory, save. We are, of course, most familiar with governments as borrowers in the capital markets.

The less well understood role of government in markets occurs when they provide a framework so households and businesses can interact with certainty and at the lowest possible transaction cost. The hidden costs of ensuring that exchanges occur in the labour, goods and service, and capital markets are called transaction costs.

To provide one example, trade requires certainty with respect to quality, quantity, payment, credit, and delivery. Negotiating and specifying this certainty leads to higher transaction costs. If these negotiations must occur for each trade, the transaction costs would be extremely high. Consider the transaction costs associated with buying a box of cereal if there was no certainty about quality, quantity, and price, and whether you could take it home. Transaction costs are

reduced through explicit and implicit contracts between buyers and sellers and third parties. For example, grocers know that their long-term reputations depend on treating customers fairly and ensuring quality in their products. This is an implicit contract between customers and grocers. The explicit part of the contract is the bill customers receive for their groceries and the prompt payment of that bill to ensure that they can leave the store with those groceries. Governments play a critical role in creating these contracts by enacting standards and laws and enforcing these contracts through laws and courts.

To reduce transaction costs governments also build public infrastructure related to roads and communication. They guarantee the medium of exchange to limit or negate the transaction cost burden of a barter system. They develop and enforce laws and rules related to property rights and commerce so that there is recourse in the event of a fraudulent transaction.

This list is brief as there are a myriad of administrative, legal, and infrastructure functions and services provided by government in support of markets. To the extent that governments are successful in support of markets, businesses, and households, these entities generally pay taxes willingly, in exchange for government's role in supporting the creation of their wealth through markets.

Market Characteristics

For this paper we focus on six fundamental characteristics of markets. These characteristics form the foundation to support market-driven economic growth as first articulated by Adam Smith. The first two characteristics presented below are generally found within the private sector.

1. **Specialization**—Markets allow individuals, groups, and countries to realize economic benefits from specialization in the production of goods or services. Specialization can result from utilizing an advantage in resources, labour, location, or innovation. The role of comparative advantage and specialization in support of trade was first articulated by David Ricardo in 1817.⁵ This concept is further explained in the next section of this paper by means of a hypothetical historical First Nation trading example.
2. **Trade Networks**—Economic benefits from specialization arise because the individual, group, or country sells their product or service to people outside their region or country. These are exports. The benefits accrue to the exporter because their costs of production and transportation are lower than the price received for their speciality. These are the producers' profits. An increase in exports is a principle driver of economic growth.⁶

Markets need governments. In particular governments must provide the legal and administrative framework to support trade and reduce transaction costs. When governments get this institutional framework right, markets can create growth and prosperity. When governments get this wrong or are unable to adjust to a change, then markets can fail and lead to recession and poverty.

The next four market characteristics are generally paid for by taxes and maintained by the public sector.

3. **Public Infrastructure**—Trade requires infrastructure to support transportation, communications, and public health. Without this infrastructure, the costs of trade are higher. Unfortunately, the benefits from this infrastructure cannot generally be captured by a private sector provider, so infrastructure provision is almost always a public function. The presence of public infrastructure to support trade is evidence of government and taxation. C. J. Mann wrote: “Because human beings rarely volunteer to spend their days loading baskets with heavy rocks to build public monuments [it is] argued that these cities must have had a centralized government that instigated and directed the work.”⁷
4. **Standards, Laws, and Dispute Resolution Mechanisms**—Markets, and more specifically trade, need rules, certainty, and recourse in the event of disputes. The absence of such a framework would require traders to negotiate these rules and certainty for each trade. This raises transaction costs. To put this in perspective, imagine if there was no agreement on the measurement of a gram and you wished to purchase a box of cereal sold in grams. Once again, because the private sector cannot capture the benefits from most standards, these are almost always public goods.
5. **Mediums of Exchange**—In the modern context this refers to money. Trade of goods and services can be greatly expanded through mediums of exchange. It allows for indirect trading because any good, service, or labour can be exchanged for money. The divisibility of money facilitates precision in trade. Because money acts as a standard and store of value it supports the exchange of current money for the promise of future money in the capital markets. As a result, mediums of exchange allow for the significant expansion of trade. The providing of certainty and security to a medium of exchange is almost always secured or backed by governments.
6. **Property Rights**—A simple definition of a property right is the ability to exercise a decision about a good, service, or labour. By this definition, trade is an exchange of property rights. Without property rights, individuals would not have an incentive to engage in trade because they could not be sure of their rights of usage as a purchaser, or their rights of profits as a seller. Governments must provide and protect property rights to ensure there is sufficient individual incentive to engage in trade.

The rest of this paper provides evidence of each of these market characteristics within pre- or early contact First Nation societies. Evidence of these market characteristics demonstrates both the existence of pre- or early contact First Nation market cultures, and the capacity of First Nations to sustain market-driven economic growth.

Evidence of First Nation Pre-Contact Markets

1. Specialization

Specialization means that as a result of trade it is not necessary for each society or group to produce all their requirements themselves. They will specialize in the production and export of those goods and services in which they have a comparative advantage. They will create a surplus from this specialization and they will trade that surplus for the goods and services they require from others who have developed specialization in those goods and services. The first piece of evidence we present, therefore, is specialization in a comparative advantage among First Nations. But first is a brief explanation of comparative advantage.

Consider the hypothetical specialization example described in **Tables 7.1** and **7.2**, involving the cost of producing rabbit hair robes and salmon oil for two First Nation groups. In this example, the Cañon division of the Secwepemc can produce both rabbit hair robes and salmon oil more cheaply than the Chilcotin. Therefore, the Cañon division has an absolute advantage in both products.

But consider their relative costs. The production of one unit of salmon oil costs the Chilcotin two units of rabbit hair robes. But the production of one unit of salmon oil costs the Cañon division only 1.5 units of rabbit hair robes. Their comparative costs differ, and therefore specialization and trade will be mutually advantageous. The Cañon division is relatively better at producing salmon oil, while the Chilcotin is relatively better at producing rabbit hair robes. The Cañon division has a competitive advantage in the production of salmon oil and the Chilcotin has a competitive advantage in the production of rabbit hair robes.

Assuming the Chilcotin have 270 man-hours available for production, this group can produce eight units of rabbit hair robes and five units of salmon oil in a non-trading situation. Assuming the Cañon division has 180 man-hours available for production, this group can produce nine units of rabbit hair robes and six units of salmon oil in a non-trading situation. Total production is seventeen units of rabbit hair robes and eleven units of salmon oil.

If trade is possible, both groups can specialize. If the Chilcotin utilize all available 270 man-hours for the production of rabbit hair robes, it can produce eighteen units. If the Cañon division utilizes all available 180 man-hours for the production of salmon oil, it can produce twelve units.

Trade and specialization allows the combined output between the two First Nation groups to increase by one unit of rabbit hair robes and one unit of salmon oil, and both are better off as a result.

First Nation Pre-Contact Specialization

The brief literature review of First Nation specialization and comparative advantage was limited to memoirs, found in the American Natural History Museum, of initial contact with First Nations. Although the memoirs are often comprehensive, it is

Table 7.1: Production Costs

	Rabbit Hair Robes Cost Per Unit (man-hours)	Salmon Oil Cost Per Unit (man-hours)
Chilcotin	15	30
Cañon Division (Shuswap)	10	15

Table 7.2: Trading Affords Increased Total Production

	Production			
	Non-Trading Situation		Trading Situation	
	Rabbit Hair Robes	Salmon Oil	Rabbit Hair Robes	Salmon Oil
Chilcotin	8	5	18	0
Cañon Division (Shuswap)	9	6	0	12
Total	17	11	18	12

unlikely that these examples represent specialization from more than one hundred years before contact. Evidence of previous specialization would require a review of the archeological literature and is beyond the scope of this paper.

Table 7.3 (page 116) presents some examples of pre-contact specialization and comparative advantage among First Nations from British Columbia to Ontario.

To put the significance of this list of First Nation specializations in context, consider the following. This list indicates that First Nations were active pre-contact exporters. They recognized their comparative advantages and organized their economic systems around these specialities. It is worth noting that some of these pre-contact advantages were related to technology (canoes, baskets, and pemmican), others to access to resources (fishing, whaling, iron, and hunting) and others to location (trade and agriculture).

2. Trade Networks

Recognition of mutual gains from trade means there should be evidence of voluntary exchanges and trade. Pre-contact trade networks involving First Nations indicate social connections between trading nations. They indicate that the First Nation trading partners appreciated and realized the mutual gains from trade. Perhaps, most importantly, they indicate pre-contact openness among First Nations to trade, and the development of complex market economies.

This is probably the richest vein of research, as there are numerous examples of bilateral trading as well as trading networks. This section briefly describes three trading networks: (i) Secwepemc-Tsilhqot'in, (ii) Nootka-Kwakiutl, and (iii) Pipestone.

Table 7.3: First Nation Specializations

Group	Specialization
Algonquian: Eastern and Woodland (Piegan)	hunting and trading
Assiniboine	skin preparation
Beothuk	fishing (seal hunting, fishing, and shellfish collection)
Blackfoot	elk-antler bow production
Chipewyan	ice fishing, agriculture (wheat)
Coast Salish	iron extraction
Haida	tobacco farming
Haisla	eulachon fishing and oil production
Huron	agriculture
Kutenai	horse trading
Kwakiutl	woodworking, iron and metal extraction
Lillooet (Lower Division)	orchard development
Nisga'a	eulachon fishing services
Nootka	whaling and seal/otter hunting
Ojibwa	hunting and trapping (beaver)
Petun	tobacco farming
Potawatomi	agriculture
Sarsi	beaver hunting, agriculture (wheat)
Shuswap (Cañon Division)	salmon fishing, trading, and oil preparation
Shuswap (Fraser River and Lake People)	iron extraction, cedar-root basket production
Skolahun	fish-weir production
Thompson	cedar canoe production, agriculture (wheat)
Tlingit	copper extraction
Tsimshian	abalone-shell accumulation
Western Woods Cree	pemmican production

Secwepemc-Tsilhqot'in

One division of the Secwepemc Nation, the Cañon division, specialized in salmon fishing, the preparation of oil, and trading. Trade occurred with the Tsilhqot'in (Chilcotin) Nation because they were proficient hunters and trappers. The Cañon division of the Secwepemc received some woven goat's-hair blankets and belts, bales of dressed marmot skins, rabbit-skin robes, and snowshoes in exchange for dried salmon and salmon oil, woven baskets, paint, and in later days, horses.⁸ As a result of this trading relationship, the Cañon also provided transaction services as

active middlemen facilitating trade between the Tsilhqot'in and the other divisions of the Secwepemc.

Nootka-Kwakiutl

Some of the Nootka People, located on the west coast of Vancouver Island, were whalers. Among other First Nations it was believed that whalers had to possess the assistance of a supernatural being in order to capture something so massive. The Nootka specialized in whaling methods, which were passed down between generations. Whales yielded a number of tradable food products including blubber, flesh, and oil.⁹

Along with whaling, the Nootka were excellent fishermen and otter/seal hunters and would actively trade fish, fish oil, and furs along with manufactures made from the otters, seals, and whales they captured. Their primary trade partners were the Kwakiutl who were located northeast of the Nootka on present-day Vancouver Island. The Kwakiutl territory extends to present-day mainland British Columbia, so they had access to a much larger trading network. The Kwakiutl would trade knives, chisels, nails, buttons, iron, and any kind of metal (their land provided these types of resources and they obtained some from trade with the Coast Salish) as well as carved works, spears, fish hooks, and other such implements. The Nootka and the Kwakiutl utilized a network to facilitate trade from the villages of Kyuquot, Tahsis, and Nootka Sound. These villages were great ports of the time and important locations in Vancouver Island trade. West Coast traders would frequently visit these areas to participate in the otter fur, whaling product, and fish oil trade.

Pipestone

Pipestone is a soft stone that is used to manufacture Aboriginal smoking pipes. The only known pre-contact mine for pipestone can be found at what is now known as Pipestone National Monument in present-day southwestern Minnesota.¹⁰ The pipes that were manufactured were of religious importance and were one of the most widely traded goods in the pre- and post-contact eras. They were utilized in almost every ceremony with indigenous people in the upper Midwest. The pipes were smoked to ratify treaties and various agreements. Several archeological surveys have found pipestone artifacts in South Dakota, Ohio, and Kansas.¹¹ Also, the introduction of the horse and the increased number of indigenous people quarrying pipestone combined to widen its distribution to Arizona and Kentucky. The manufactured pipes and raw red pipestone quarried in Minnesota even found their way to the First Nations of eastern/central Canada via lakes and rivers in Ohio and New York and western Canada.¹²

Other Examples

Trade between two divisions of the Mayans (who occupied present-day Guatemala, Belize, El Salvador, Honduras, and parts of Mexico) is well documented. Trade

between the Northern Lowlands and the Highlands was well established via water routes on the Gulf of Mexico and the Gulf of Honduras as well as various inland routes. The Northern Lowlands Maya imported corn, fruit, cacao, various manufactured goods, flint, game, cotton, cloth, obsidian, metates, and manos.¹³ The Highland Maya imported honey, salt, ceramics, various tools, salted fish, marine shells, dye, incense, jade, and rubber.

In another example from British Columbia, divisions of the Secwepemc Nation traded internally. Cedar roots were used frequently by the Lake division of the Secwepemc Nation, who gathered the roots in the mountainous regions to manufacture baskets. As cedar was scarce in most parts of the country, the great majority of baskets were woven of lesser quality spruce root. The Lake division would trade the superior baskets to divisions such as the Kamloops and Bonaparte for various animal furs, salmon, and game (seasonal food).

3. Public Infrastructure

In order to thrive, trade networks require infrastructure. This section briefly describes the oolichan grease trails that provided transportation throughout British Columbia, and eventually became fur-trading trails. Other examples of extensive public infrastructure supporting trade networks are found in research about the Norte Chico's public infrastructure from five thousand years ago in Peru to support their cotton and seafood trade,¹⁴ the Inca road system to support the movement of people, armies, and goods across the empire,¹⁵ and Mayan public infrastructure to support their extensive trading network outlined above.¹⁶

The Oolichan Grease Trails

Oolichan is a type of ocean smelt found along the Pacific coast of North America from northern California to Alaska. First Nations, such as the Haisla and the Nisga'a, would catch this fish and extract valuable oolichan grease (or oolichan oil). This grease was used as a condiment (a First Nation version of butter). The oil was also used as salve, sauce, seasoning, food preservative, laxative, lamp oil, and leather-tanner. The oolichan grease was a source of vitamins A, C, and E, and was used as medicine to treat colds and flu. One box of grease could be bartered for four blankets, two beaver skins, or two boxes of dried halibut. Two boxes of grease had the value of one canoe.¹⁷

The grease was so highly valued by western First Nations that a comprehensive network of oolichan grease trails was created in order to accommodate trade between coastal and inland Nations. The trails covered from present-day Yukon Territory to present-day northern California and as far east as central Montana and Alberta. In addition, there were even grease trails on Vancouver Island.¹⁸ Horses were not available to support trade until the late 1700s, so the grease was slung on the backs of individuals wishing to trade it. The grease trails were usually the easiest routes across plateaus, highlands, and over mountains. Between 1821 and 1846 the grease trails were converted into fur trails.

4. Standards, Laws, and Dispute Resolution Mechanisms

Increased exports and trade require standards, commercial laws, and mechanisms to resolve commercial disputes. These institutions reduce the cost of trade. We briefly describe the Great Law of the Iroquois and the Chinook Jargon below. In addition we have done some preliminary research about the Aztec commercial law and contracts system¹⁹ and origin of the concept of zero by the Olmec.²⁰

The Great Law of the Iroquois

First Nations are not strangers to various decision-making and dispute resolution processes. This is especially true among the Iroquois of eastern North America. The Iroquois Confederacy set out ways within their constitution in which disputes could be settled among the Six Nations.²¹ This process was so extensive that in 2000, Tonya Perron drafted the *Final Report on the Administration of Justice in Kahnawake* for the Department of Indian Affairs and Northern Development (now available in the Indian and Northern Affairs Canada library). The report demonstrates that the Mohawks of Kahnawake were more than capable of governing their own affairs, particularly with respect to justice. The report proposes the creation of a community-based system of justice for the Mohawks of Kahnawake that incorporates the “traditional decision-making processes embodied in the Iroquois Constitution.” Specifically, Perron proposes the “Longhouse Justice System.” This was a model based on the ancient Iroquois Great Law, customized to suit the Mohawk community of the present.

Chinook

Efficient trade requires standards and laws, and in some cases, a trading language. This legal and administrative framework reduces transaction costs for producers, exporters, and importers, and as a result increases trade.

Language is a type of standard especially as it relates to trade. The Chinook Jargon was the primary language used in the nineteenth century for trade among First Nations and Europeans from Alaska to California (approximately one hundred thousand people used it). Chinook is a combination of Nuu-Chah-Nulth (Nootka), French, English, Old Chinook (spoken by the Chinook people who lived near the mouth of the Columbia River), and other First Nations languages.

This particular language was used because of the need to simplify communication between groups who spoke a multitude of dissimilar languages in a region that was known at the time as “one of the most diverse linguistic areas of the world.”²² The actual origin of the Chinook language has spawned two different theories. One theory is that Chinook was created and had already been utilized as a way of communication between First Nation groups before the arrival of Europeans. The second theory is that Chinook arose as a means to satisfy trade communication, so First Nations and Europeans could conduct business with each other.

Table 7.4 (page 120) provides a sample of Chinook words and their respective English translations.

Table 7.4: Sample of Chinook

Chinook Words	English Translation
huyhuy, makuk	trade, exchange, barter
dala, dolla, chikamin	money
tulo, tolo, to'lo	profit, earn
tipsu	fur
samèn	salmon
klatawa kimta, uyhêt	trail
salt chék	ocean
gliys	oil
lapush	river mouth
pish	fish
mékémék	food

5. Medium of Exchange

A medium of exchange is a commodity or other item that is widely accepted as a way of paying for transactions in a given market. Currency is the present medium of exchange in our economy. A medium of exchange is important because it facilitates the exchange of one good for another and eliminates a situation in a barter economy known as the double coincidence of wants. This situation rarely occurs and because of this, a barter economy is limited to only simple transactions. On the other hand, an economy that uses a form of medium of exchange can facilitate the occurrence of more indirect transactions. Individuals sell their outputs for “money” and use it to buy other goods for consumption. This allows people within the economic system to specialize in labour, produce goods with relatively lower opportunity costs, and then sell those goods to individuals who assign the greatest value to them.

We list three First Nation mediums of exchange below. Wampum was used by First Nations in eastern Canada, and dentalium shells and Made Beaver by First Nations in western Canada.

Wampum

Wampum is composed of white and purple seashells threaded on string or woven into belts or sashes. Particularly in the seventeenth and eighteenth centuries, it was valuable to First Nations in eastern Canada as an ornament and during ceremonies. It had considerable value to First Nations and non-First Nations alike for currency. Wampum held value among the Iroquois and other First Nations in relation to deerskins, beaver pelts, and, after extensive contact with Europeans, British coins. The value of a wampum string was measured by its length in fathoms.²³ B. Johansen claims that for a period during the mid-seventeenth century, wampum was legal tender in colonial New England, with a value of eight white beads or

four purple beads to a penny.²⁴ Wampum also had many features that allowed it to become a useful currency: there was strong demand for it, the beads were difficult to make, and it was conveniently sized.

As a result, wampum became an essential part of the fur trade as European settlers used shell beads to buy beaver pelts from First Nations. Throughout time, Europeans duly recognized the value of Wampum and, subsequently, legislation was passed in Lower Canada to permit the importation of wampum for trade with First Nations in 1792.

Dentalium Shells

Dentalium shells were used as a medium of exchange among western First Nations. In particular, the Coast Salish, who occupied present-day southern B.C. and northern Washington, used dentalium shells in trading with other Pacific coastal groups, ranging from northern California to southeast Alaska.²⁵ Dentalium shells are variously sized—they may grow to a couple of inches—tubular molluscs. There are over three hundred species of dentalium, but the species most used by First Nations in North America were *Antalis pretiosum*. Dentalium shells were more prevalently used as currency before the coming of the fur traders and the use of their blankets as a medium of exchange.²⁶ The Cowichan, located near present-day Duncan, British Columbia, used dentalium shells for smaller transactions, with the goat-hair blanket being the primary medium of exchange for larger transactions.²⁷

The larger an individual dentalium shell or the longer a string of shells, the greater the purchasing power. A fathom-long string of dentalium shells (kunaluh) alone could buy up to two ocean-travelling canoes. As another example, a fathom-long kunaluh plus eight or ten shells was worth a slave or a large sea otter skin. Moreover, about a thousand of the smaller shells were required to buy one blanket.

Made Beaver

Beaver pelts were a definite principal export good during the fur trade in Canada and constituted a medium of exchange among the fur traders and First Nations.²⁸ North America had an abundance of beaver with valuable fur pelts, which were used to make hats and other items greatly sought after in Europe. Subsequently, the fur trade became a large-scale industry. Even on the Atlantic coast, beaver fur was used as a medium of exchange, side by side with wampum, and it eventually evolved as the basis of all trade between the French of Canada and First Nations. As the beaver became scarcer in eastern Canada, the fur trade pushed westward. In central Canada, the Made Beaver became the basis of value first between French and First Nations, and afterward between English and First Nations. The use of Made Beaver even made its way to western Canada.²⁹

The Hudson's Bay Company (HBC) used the Made Beaver (MB)³⁰ as a unit of currency that could be traded at their posts for various European trade goods.

Table 7.5: Examples of Made Beaver (MB) Pricing at HBC Posts

Commodity	York Factory Price in MB in 1740	Fort Albany Price in MB in 1733
One gun	14	10 to 12
One pistol	7	4
One blanket	7	1
One knife	0.250	0.125
One hat	4	1
One file	1	1
Twenty fish hooks	2	1
One gallon of brandy	4	1
One pair of looking glasses	1	0.5
One ice chisel	1	0.5
One yard of cloth	3.5	0.5
One shirt	2.5	0.5
One kettle	2	1

Source: Hudson's Bay Company; Carlos and Lewis, 2008

According to HBC, “a Made Beaver was a prime beaver pelt which had already been worn for at least one season and from which most of the long outer hair had worn off.” Felters would then be able to easily shave the beaver wool from the skin in order to manufacture hats. Other animal pelts (otter, squirrel, moose, etc.) were usually quoted in MB and, in addition, the prices of all trade goods at HBC posts were set in values of MB. The MB rates generally depended on market conditions in Europe and the extent of fur trade competition in Canada. **Table 7.5** displays the prices in MB of some commodities at two HBC forts in Canada.

6. Property Rights

Well-defined property rights are the foundation of the modern market system.³¹ They are important because they provide the rules to protect the property of individuals so that they can utilize their resources to create a surplus and gain from trade. In addition, property rights allow individuals to make profitable contracts with others, provide incentives to encourage conservation or resource maintenance, and allow for enough ownership certainty that individuals can transfer rights to resources through trade.

There is a rich emerging literature demonstrating how prevalent First Nation property rights were. To begin, many First Nation laws were created in agreement with customs, culture, and resource scarcity. First Nations understood the importance of using rules to limit access to the collective, but devoted resources to the definition and enforcement of those rules only when it was worth it economically.³² Furthermore, property rights did not exist everywhere; they were created only where and when First Nations could capture economic gains (i.e., rents) by going to the effort of defining and enforcing property rights. They developed in

small group settings where each member benefited from institutions that reduced transaction costs and rent dissipation.³³ Property rights were thus created as a result of incentives to protect resources.

Personal property was nearly always privately owned because it required a significant amount of time to produce and maintain. Clothes, weapons, utensils, and housing were often the property of those who made them. A teepee, for example, was owned by individuals or groups who gathered, tanned, scraped, and sewed hides together.³⁴ Bows, arrows, and arrowheads were also privately owned because of the considerable amount of time they took to construct. High-quality stone used to make arrowheads and knives was privately owned. Wood for bows was privately owned as well because it usually came from distant locations and could only be obtained through trade.³⁵

We list two examples of pre-contact property rights below for Ojibwa and Secwepemc First Nations. We also note that the Aztec had a sophisticated system of registering and measuring property rights and that there is substantial evidence that they used this system to calculate land values for the purpose of collecting property taxes.³⁶

Ojibwa

The Ojibwa of central Canada (present-day Manitoba and Ontario) had traditional individual property rights within their communal land. In particular, the possession of horses in many central Canadian cultures was a symbol of wealth and prestige. Horses allowed greater mobility for hunting. They were considered personal property with full inheritance and trade rights.³⁷

Moreover, during the fur trade era, the Ojibwa (even some American Plains groups, e.g., the Dakota) laid claim to private hunting and trapping grounds. This was made possible because the areas were easily patrolled on horseback.³⁸ These rights were so well enforced that they became commodities in trade as the Dakota allowed the Ojibwa access to its hunting/trapping territory in exchange for access to French traders and their goods.

In 1849, Canada appointed two commissioners to investigate the grievances on the upper lakes. Their report contained the following:

Long established custom, which among these uncivilized tribes is as binding in its obligations as Law in a more civilized nation, has divided this territory among several bands each independent of the others; and having its own Chief or Chiefs and possessing an exclusive right to and control over its own hunting grounds — the limits of these grounds especially their frontages on the Lake are generally well known and acknowledged by neighbouring bands; in two or three instances only, is there any difficulty in determining the precise boundary between adjoining tracts, there being in these cases a small portion of disputed territory to which two parties advance a claim.³⁹

Secwepemc

The Secwepemc applied traditional communal tenure on their principal territory and assigned caretakers to keep intruders out and protect their boundaries. Within their property rights system, they had primary use in the territory that they lived in and permissive use rights in the territory in which they had relatives.⁴⁰ The Secwepemc would enforce rights by protecting the boundaries of their communal land through warfare, pre-contact treaties, resource caretakers, and intermarriage. However, they also used concepts of traditional individual property rights. These rights were applied mostly on resource extracting implements as well as resource-abundant areas because they were valuable. For example, fishing weirs were common property of the Nation, but individual fishing stations (built platforms used to spear fish) or fishing rocks were individually controlled and those who constructed and maintained them had the right to fish there first or exclusively. This allowed them to utilize economies of scale, while still emphasizing individual property rights. Deer fences used to capture deer and elk and trap lines were also private property belonging to those who constructed them, as were the animals that were captured as a result.⁴¹

These personal property constructs were treated as private property because they required an element of human labour to create and maintain. Although the Secwepemc supported sharing within the Nation they did not value freeloading and emphasized individual autonomy.⁴² These property rights institutions were most likely put in place to reduce this type of behaviour and promote individualistic endeavours.

Conclusion

Trade and specialization were common to First Nations in Canada and throughout the Americas in the pre- and early contact periods. Moreover, public infrastructure, standards, mediums of exchange, and property rights to support markets were also common before contact. Pre- and early contact First Nations in Canada had all six market characteristics required to promote economic growth.

This conclusion should not be surprising as the history of Canada is one of First Nation trade with Europeans. What would have been the history of Canada if the Hurons had not traded canoes to the eventual voyageurs? It has been argued by Harold Innis that the fur trade created Canada. The stories of initial First Nation contact with Europeans are almost entirely a result of trade and markets. As George Manuel puts it, the initial trade was fair.

Technologies are only the tools through which we carry on our relationships with nature. The great accomplishments of Indian technology are almost all related to food, clothing, housing, and medicine. In the early days of colonization there was a meeting of technologies—Indian and European. Measured by the needs of the common man, the commodities the Indian nations had to offer in the greatest abundance were the ones the Europeans most lacked. What the Europeans had to offer in consideration for having their basic needs met was the technology to do the same job better.⁴³

Perhaps more importantly, as a result of recent legislation and emerging comparative advantages, there are contemporary opportunities for First Nations to restore their market cultures and create the conditions for First Nation economic growth. To cite just two examples, First Nations can again specialize in their comparative advantages and they can develop standards to support trade.

Specialization in Comparative Advantage

A number of First Nations currently have location and resource access comparative advantages. To list a few examples, consider the demand for commercial and residential development on Squamish, the Sto:lo Nation communities, Penticton, Lower Kootenay, Tsu Tina, Enoch, Whitecap Dakota Sioux, Mosquito, the Brokenhead Ojibway, Kettle and Stoney Point, the Huron Wendake, and Millbrook. Consider also the demand for resource partnerships with the Yukon First Nations, the Inuvialuit, Fort McKay, and Treaty 3 First Nations. This short list demonstrates that there is a strong opportunity for a number of First Nations to specialize in their comparative advantage.

However, these First Nations comparative advantages in location, resources, or labour will not be realized without openness to trade. Much like their ancestors, seizing these opportunities would make their community more economically self-reliant and lead to strong social infrastructure.

Standards

Countries all over the world sign free-trade agreements because as a result their economies will grow. Free-trade agreements are when two or more countries reach a consensus on the standards and taxes they will utilize to facilitate more trade. Countries (even ones as large as the United States) submit to these treaties because of the potential economic benefits. These standards become the modern language of trade and mechanism to resolve disputes related to trade.

Modern free trade on First Nation lands is hampered because there is an absence of standards. The rules relating to construction, development processes, land use and environmental matters, and business activities are either different between First Nations within the same province or non-existent.

The First Nations Tax Commission has, for years, promoted standards by providing sample laws and enforcing standards through their First Nation Fiscal and *Statistical Management Act* law approval function. Other national institutions such as the Lands Advisory Board have yet to follow a similar path with respect to land management rules and as a result are reducing some of the potential economic benefits that could be realized from the *First Nations Land Management Act*.

Endnotes

- 1 Although the term First Nation is common in Canada, its definition in this paper is slightly different than its current usage. A nation is commonly understood to be “a people holding in common such attributes as ethnicity, history, culture, religion and language” (from Kingsbury and Roberts, 1989, p. 10) and occupying a defined geographical area. The term First Nation in this paper refers to a nation of people in the Kingsbury and Roberts sense and not a community, as is common today.
- 2 Markets are nearly everywhere. Anyone who has travelled knows that anything that can be sold to a tourist generally is. Markets can spring up in unlikely places. They were in prisoner-of-war camps in the Second World War when cigarettes were used as currency. According to the UN, in 1995 some eighty-two thousand businesses sprung up in the Rwandan refugee camps in Zaire (McMillan, 2002). On eBay there has been active bidding for such items as dirt, a soul, and a paper clip.
- 3 The recent economic history of both China and India display the benefits that arise when nations transform from centrally planned to market-oriented exporting economic systems. Economic growth reduces poverty. Using United Nations definitions of poverty lines, approximately 187 million people have been lifted from poverty in China and 28 million in India between 1987 and 2007.
- 4 To fully appreciate the importance of credit and debt, and the potential economic impact of its failure, consider the following: “The evolution of credit and debt was as important as any technological innovation in the rise of civilization. Banks and the bond market provided the material basis for the splendors of the Italian Renaissance; Corporate finance was the indispensable foundation of both the Dutch and British empires, just as the triumph of the United States in the twentieth century was inseparable from advances in insurance, mortgage finance and consumer credit.” (Ferguson, 2008).
- 5 David Ricardo (1772–1823) was a political economist. His most important contribution was, perhaps, the theory of comparative advantage. Ricardo explained the theory of comparative advantage in his 1817 book, *On the Principles of Political Economy and Taxation*. Ricardo showed that mutual benefits from trade can be realized, even when one group has an absolute advantage.
- 6 Real Gross Domestic Product (GDP) in China has grown on average 9.52 percent from 1979 to 2006 (National Bureau of Statistics, China, 2007), compared to 5.3 percent annual average real GDP growth from 1960 to 1978 (Morrison, 2006). Average annual real GDP growth in India has been 6.38 percent from 1990 to 2005 (Government of India Union Budget and Economic Survey), compared to 4.81 percent from 1979 to 1989 (Government of India Union Budget and Economic Survey), prior to their reforms.
- 7 Mann, 2006.
- 8 Teit, 1909.
- 9 Northwestern University Library, 2003.
- 10 Another similar example is that of chert from the Labrador coast. Chert is a fine-ground stone that is made mostly of silica. It was used primarily to produce tools. There are two different types of high-quality chert found on the Labrador Coast. Ramah chert, in particular, is found exclusively in Ramah Bay and is visually distinct from other types of chert. The first people to utilize this type of stone were the Maritime Archaic Indians approximately 4,500 years ago. The presence of Ramah chert artifacts in locations as far south as the Maritimes and Maine, and west to Trois Rivières, Québec, suggests the existence of a large trade network. The Maritime Archaic Indians traded chert for goods like wood and beaver teeth, which were not available in their northern environment.
- 11 Rothman, 1992.
- 12 Hunt, 1968.
- 13 Editor’s note: Metates and manos are grinding slabs and stone grinder, often called mealing stones, which were used to grind maize and other grains.
- 14 The Norte Chico or Caral-Supe civilization of present-day north-central Peru is the oldest known

- civilization in the Americas and may represent the first instance of modern government in the world. Furthermore, the formation of government seems not to have arisen from the need for national security, as some have often speculated. There are no real governments without taxation, so is it possible that the concept of taxation was invented in the Americas? (Mann, 2006).
- 15 The Inca road system was one of the most extensive road/trail systems created in South America before the arrival of Columbus. As the Inca did not use wheeled vehicles or horses, the roads were essentially dirt paths, with some stone-paved sections. In some areas suspension bridges were built over ravines and bodies of water. The trails were intended to be travelled by foot with the use of llamas to pack goods.
 - 16 The Mayan people built public infrastructure such as warehouses, trade routes (some roads made of stone), and rest houses for goods carriers in order to facilitate trade and generate wealth. The scale of Mayan public infrastructure supports theories of centralized government and taxation.
 - 17 Hirsch, 2003.
 - 18 It is probably not a coincidence that the territory of the grease trails roughly corresponds to the scope of the Chinook language.
 - 19 The Aztec commercial law system was enforced by a group known as the Pochteca. The Pochteca were a union of Aztec merchants who paid tax to the Aztec government for the ability to regulate the marketplace and judge all lawsuits relating to the merchant class. The Pochteca had a number of market inspectors interspersed in the crowd to ensure items were being sold at proper exchange rates, and commodities were of a minimum quality standard and not counterfeit. The Pochteca also established the legal jurisdiction of contracts within the Aztec commercial law system and commercial court. They recognized the importance of different types of contracts including sales contracts, commission sales contracts, lease contracts, work contracts, and loan contracts (Andrade, 2004; Avalos, 1994).
 - 20 The Olmec developed a Long Count calendar, which is a one-by-one tally of days since a fixed starting point thousands of years ago (Mann, 2006). The Long Count calendar began with the date 0.0.0.0.0. This is mathematically significant because it shows that First Nation societies used zero as a placeholder, much as it is used in the base-10 system: “Tentatively, therefore, archeologists assign the invention of zero to sometime before 32 B.C., centuries ahead of its invention in India” (Mann, 2006).
 - 21 These principles of the Great Law of Peace from the Iroquois Constitution set out rules that govern the Iroquois Confederacy and the Six Nations. It is considered an example of the existence of Aboriginal self-government (Perron, 2000).
 - 22 Holton, 1999.
 - 23 One fathom is equal to six feet in length.
 - 24 Johansen, 1982.
 - 25 The tribes of the high North Pacific coast did not value dentalium as much as the more southern people. Before being replaced by pelts and then blankets introduced by the Hudson’s Bay Company, elk, moose, and other animal skin seemed to have substituted dentalium as a medium of exchange and standard of value. Dentalium was still used, but relatively less than by the more southerly groups.
 - 26 Stearns, 1869.
 - 27 Northwestern University Library, 2003.
 - 28 Jones, 1976.
 - 29 The Secwepemctsin (language of the Secwepemc) word for beaver, “sklau,” is still a slang word for money.
 - 30 Although this example occurred post-contact it still presents a case of Indigenous people responding to incentives and understanding the importance of market-supporting institutions.
 - 31 De Soto, 2000.
 - 32 Anderson, 2004.
 - 33 Ibid.
 - 34 Ibid.

- 35 The Cree people of central Canada practiced this type of private property right. On group hunting trips, when a specific hunter would catch an animal, the arrowhead used to kill it usually had a marking on it to indicate ownership. Thus the owner of the arrowhead subsequently owned the animal. They would occasionally distribute some of the animal products (meat, hides, organs, bones) to those who helped as a type of payment.
- 36 The fact that the Aztecs mathematically calculated land area has been known since the 1980s. However, it wasn't until relatively recently that how they did it was discovered. This new discovery, made by a geographer and a mathematician, is based on analysis of pictures within the Codex Vergara. The Codex Vergara is a document from 1540 made by Aztec surveyors. It contains schematic drawings of agricultural land, along with measurements of individual fields. These were used to calculate and record the area of individual parcels of land. The study was able to determine how the Aztecs calculated land area, and suggests the existence of an unknown indigenous calculation procedure. The existence of this indigenous calculation procedure suggests the Aztecs were calculating land area before the Spanish invasion in 1519. It is possible the Aztecs developed a system to calculate land area in order to define the fundamental market institution of individual property rights. The definition of property rights and calculation of land area may have been required to operate an Aztec property taxation system. Michael Smith, an archaeologist at Arizona State University, Tempe, has said, "Although the Aztecs are the only early Americans to have left these kinds of technical documents, it's reasonable to assume that other groups such as the numerically sophisticated Maya used similar systems."
- 37 Anderson, 2004.
- 38 The Ojibwa even created a clan responsible for guarding the villages and hunting areas and enforcing their right to their territory.
- 39 In 1849, the governor general of Canada approved the appointment of two commissioners to investigate land claims of the Ojibwa along Lake Superior and Lake Huron. The commissioners appointed were Alexander Vidal, deputy provincial surveyor, and Thomas G. Anderson, superintendent of Indian affairs. Vidal and Anderson travelled along the shores of Lake Superior and Lake Huron throughout the late summer and fall of 1849, meeting with various bands to discuss land issues. They filed their report in Toronto on December 5, 1849.
- 40 Ignace, 2008.
- 41 Ibid.
- 42 Ibid.
- 43 Manual and Poslums, 1974.

References

- Adams, R. E. W. 2005. *Prehistoric Mesoamerica*, 3rd ed. Norman: University of Oklahoma Press.
- Anderson, T. L. and P. J. Hill. 2004. *The Not So Wild, Wild West: Property Rights on the Frontier*. California: Stanford University Press.
- Andrade, D. 2004. *The Aztec Legal System*. Santa Clara: School of Law, Santa Clara University.
- Avalos, F. 1994. *An Overview of the Legal System of the Aztec Empire*. Lexis Nexis.
- Basu, K. June 2008. The Enigma of India's Arrival: A Review of Arvind Virmani's Propelling India: From Socialist Stagnation to Global Power. *Journal of Economic Literature* 46(2).
- Belanger, C. 2004. Indian Blankets. *The Quebec History Encyclopedia*. Marianopolis College. <<http://faculty.marianopolis.edu/c.belanger/QuebecHistory/encyclopedia/blanket.htm>>
- Berdan, F. F. et al. 1996. *Aztec Imperial Strategies*. Washington: Dumbarton Oaks. <www.public.asu.edu/~mesmith9/azimpst.html>
- Binus, J. 2003. *The Oregon History Project: Dentalia Shell & Bead Necklace*. Oregon Historical Society. <www.ohs.org/education/oregonhistory/historical_records/dspDocument.cfm?doc_ID=22F1C7C2-DED2-D441-8C3FDE1062BA8465>
- Canada. House of Commons Debates. 1918. Thirteenth Parliament, First session.
- Canada. Senate of the Dominion of Canada Debates. 1884. Fifth Parliament, Second session.
- Carlos, A. M. and F. D. Lewis. 2008. The Economic History of the Fur Trade: 1670 to 1870. *Net Encyclopedia*. R. Whaples, ed. <<http://eh.net/encyclopedia/article/carlos.lewis.furtrade>>
- Carter, S. 1992. Two Acres and a Cow: Peasant Farming for the Indians of the Northwest, 1889–1897. In *Sweet Promises: A Reader on Indian-White Relations in Canada*. J. R. Miller, ed. Toronto: University of Toronto Press.
- Central Intelligence Agency. *The World Factbook*. <www.cia.gov/library/publications/the-world-factbook>
- Crandall, J. 2006. *The Inca and Their Roads: Transportation in Pre-Columbian South America*. Suite 101. <http://transportationhistory.suite101.com/article.cfm/the_inca_and_their_roads>
- DeSoto, H. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic Books.
- Din, M. Exports, Imports, and Economic Growth in South Asia: Evidence Using a Multivariate Time-series Framework. *The Pakistan Development Review* 43, no. 2: 105–124. <www.pide.org.pk/pdf/PDR/2004/Muslehuddin.pdf>
- Evensky, J. 2007. *Adam Smith's Moral Philosophy: A Historical and Contemporary Perspective on Markets, Law, Ethics, and Culture (Historical Perspectives on Modern Economics)*. Cambridge University Press.
- Ferguson, N. 2008. *The Ascent of Money: A Financial History of the World*. New York: Penguin Press.
- Fiscal Realities Economists. 1999. *Expanding Commercial Activity on First Nation Lands: Lowering the Costs of Doing Business on Reserve*. Prepared for the Indian Taxation Advisory Board and Department of Indian Affairs Canada.
- Fortier, J. M. 2003. *Ojibway History*. <<http://turtle-island.com/ojibway.html>>
- Glass, E. 2003. *Law in Mexico before the Conquest*. Tarlton Law Library, University of Texas. <<http://tarlton.law.utexas.edu/rare/aztec/Home.htm>>
- Grant, R. V. 1945. Chinook Jargon. *International Journal of American Linguistics* 11, no. 4: 225–233. Jstor. <www.jstor.org>
- Government of India. *Union Budget and Economic Survey*. <<http://indiabudget.nic.in>>
- Hankes, J. E. and G. R. Fast. 2002. *Changing the Faces of Mathematics: Perspectives on Indigenous People of North America*. Reston, VA: National Council of Teachers of Mathematics.
- Heritage Community Foundation Presents. 2002. The Fur Trade Comes to the Northwest. *Alberta Online Encyclopedia*. <www.albertasource.ca/treaty8/eng/the_setting/Exploring_the_Past/fur_trade.htm>
- Hirsch, M. 2003. *Trading across time and space: Culture along the North American "Grease Trails" from a European perspective*. Presentation at Thompson Rivers University, Kamloops, British Columbia.

- Hirst, K. K. *Inca Road: Traversing the Inca Empire on the Inca Road*. <http://archaeology.about.com/od/iterns/qt/inca_road.htm>
- History World. *History of the Incas*. <www.historyworld.net/wrldhis/PlainTextHistories.asp?historyid=ac84>
- Holton, R. J. 1999. *Chinook Jargon: The Hidden Language of the Pacific Northwest*. California: Adisoft. <www.adisoft-inc.com/chinookbook>
- Hudson's Bay Company. *Our History: Business; Fur Trade*. <www.hbc.com/hbheritage/history/business/fur/standardtrade.asp>
- Hunt, G. T. 1968. *Wars of the Iroquois: A Study in Intertribal Trade Relations*. Seattle: University of Washington Press.
- Ignace, R. 2008. *Oral Histories are our Iron Posts: Secwepemc Stories and Historical Consciousness*. Dissertation: Simon Fraser University, Department of Sociology and Anthropology.
- Innis, H. A. 1930. *The Fur Trade in Canada, an Introduction to Canadian Economic History*. Ontario: New Haven Publishers.
- Johansen, B. E. 1982. *Forgotten Founders: Benjamin Franklin, the Iroquois and the Rationale for the American Revolution*. <www.ratical.org/many_worlds/6Nations/FF.pdf>
- Jones, R. A. 1976. The Origin and Development of Media of Exchange. *The Journal of Political Economy* 84, no. 4, part 1: 757–775. <www.jstor.org/stable/1831331>
- Kapoun, R. W. and C. J. Lohrmann. 2006. Language of the Robe: American Indian Trade Blankets. Gibbs Smith. <<http://books.google.com/books?id=rU8bY4IDMrQC>>
- Kareem, P. A. *Growth, Development and Poverty in India and Nepal*. <www.hull.ac.uk/php/ecskrb/GDP2007/Abdul_Kareem.pdf>
- Kanatiyosh. *The Influence of the Great Law of Peace on the United States Constitution: An Haudenosaunee (Iroquois) Perspective*. <www.tuscaroras.com/graydeer/influenc/page4.htm>
- Kingsbury, B. and A. Roberts. 2002. *United Nations—The U.N.'s Role in International Relations*. Caledon Paperbacks.
- Ladner, K. L. and Susan Hill. 2002. *A Preliminary Review of First Nation Revenue Generation, Pre-1951*. Prepared for the Assembly of First Nations and the National Table on Fiscal Relations.
- Leslie, J. and R. Macguire. 1979. *The Historical Development of the Indian Act*. 2nd ed. Indian and Northern Affairs Canada, Treaties and Historical Research Centre.
- Lipsey, R. G. and C. T. S. Ragan. 2005. *Microeconomics*. 11th Canadian ed. Ontario: Pearson Addison-Wesley Publishers Ltd.
- Lipsey, R. G. and C. T. S. Ragan. 2001. *Microeconomics*. Ontario: Pearson Education Inc.
- Mankiw, N. G. and W. Scarth. 2004. *Macroeconomics*. 2nd Canadian ed. New York: Worth.
- Manataka: American Indian Council—Algonquin History*. 2007. <www.manataka.org/page386.html>
- Mann, A. J. 1973. The Economic Organization of the Ancient Maya. *The Americas* 30, no. : 209–228. Jstor <www.jstor.org>
- Mann, C. J. 2006. *1491: New Revelations of the Americas before Columbus*. New York: Vintage Books.
- Manuel, G. and M. Poslums. 1974. *The Fourth World—An Indian Reality*. Don Mills, ON: Collier-McMillan Canada Ltd.
- McAleese, K. 2002. *Ancient Uses of Ramah Chert*. Newfoundland and Labrador Heritage. <www.heritage.nf.ca/environment/landscape_ramah.html>
- McMillan, John. 2002. *Reinventing the Bazaar: A Natural History of Markets*. New York: W. W. Norton.
- Mehta, R. 2004. India: State of the Economy. *South Asian Journal* 4. <www.southasianmedia.net/Magazine/Journal/indiastate_economy.htm>
- Microsoft Encarta Online Encyclopaedia. 2007. *Maya Civilization*. Reviewed by W. R. Fowler, Vanderbilt University. <<http://encarta.msn.com>>
- Microsoft Encarta Online Encyclopaedia. 2007. *Mesoamerica*. Reviewed by W. R. Fowler, Vanderbilt University. <<http://encarta.msn.com>>

- Morrison, W. M. 2006. China's Economic Conditions. *Federation of American Scientists*. <www.fas.org/sfp/crs/row/IB98014.pdf>
- National Archives of Canada (NAC), RG10, Volume 1975, Reel C-11125, File: 5683.
- NAC, RG10, Volume 2350, Reel C-11206, File: 70,077.
- NAC, RG10, Volume 3144, Reel C-11330, File: 341,680.
- National Bureau of Statistics—China. 2007. *China Statistical Yearbook*. <www.stats.gov.cn/english>
- Nationmaster. Retrieved India and China Poverty Statistics. <www.nationmaster.com/index.php>
- Nationmaster Encyclopedia. *Inca Road System*. <www.nationmaster.com/encyclopedia/Inca-road-system>
- Northwestern University Library. 2003. *Edward S. Curtis's: The North American Indian*. <<http://digital.library.northwestern.edu/curtis>>
- Okanagan-Mainline Regional Network. *History of Contact*. <www.okmainregion.net/index.php?menu=education&sub=secwepemc&page=education/secwepemc/section02.inc>
- Offner, J. A. 1983. *Law and Politics in Aztec Texcoco*. New York: Cambridge University Press.
- Parkin, M and R. Bade. 1997. *Microeconomics: Canada in the Global Environment*. Ontario: Addison-Wesley.
- Perron, T. 2000. *Final Report on the Administration of Justice in Kahnawake*. Research and Analysis Directorate: Department of Indian Affairs and Northern Development Canada.
- Rajaraman, I. *Recent Economic Reforms in India*. Based on a paper presented at the ACDIS symposium on India 2000: Goals and Challenges, November 1992. <www.acdis.uiuc.edu/Research/S&Ps/1993-Sp/S&P_VII-3/india_reforms.html>
- Ricardo, D. 1817. *On the Principles of Political Economy and Taxation*. Library of Economics and Liberty. <www.econlib.org/library/Ricardo/ricP.html>
- Rothman, H. K. 1992. *Managing the Sacred and the Secular: An Administrative History of Pipestone National Monument*. U.S. National Park Service, Midwest Region. <www.nps.gov/history/history/online_books/pipe/adhi.htm>
- Roy, F. 2004. *Insights on the Canadian Economy: Canada's Trade with China*. Micro-economics Analysis Division: Statistics Canada. <<http://dsp-psd.tpsgc.gc.ca/Collection/Statcan/11-624-M/11-624-MIE2004007.pdf>>
- Royal Commission on Aboriginal Peoples. 1996. *Report of the Royal Commission on Aboriginal Peoples*. <www.ainc-inac.gc.ca/ch/rcap/sg/sgmm_e.html>
- Rural Survey Organization of National Bureau of Statistics—China. 2004. *Poverty Statistics in China*. <www.nscb.gov.ph/poverty/conference/papers/4_Poverty%20Statistics%20in%20China.pdf>
- Salvatore, D. 2007. *International Economics*. 9th ed. New Jersey: John Wiley & Sons.
- Sharp, J. W. 2001. *Prehistoric Desert Peoples: The Mogollon*. Desert USA. <www.desertusa.com/ind1/du_peo_mog.html>
- Sharp, J. W. 2001. *The Native American Peoples of our Western Deserts*. Desert USA. <www.desertusa.com/who/pro_sharp.html>
- Smith, Michael Ernest. 1996. *The Aztecs*. Malden: Blackwell Publishers.
- Srinivasan, T. N. 2006. *China, India and the World Economy*. Stanford Center for International Development, Stanford University. <<http://scid.stanford.edu/pdf/SCID286.pdf>>
- Stearns, R. E. C. 1869. Shell-Money. *The American Naturalist* 3, no. 1: 1–5. The University of Chicago Press for the American Society of Naturalists. Jstor. <www.jstor.org/stable/2447524>
- Teit, J. and Franz Boas. 1909. *The Jesup North Pacific Expedition: The Shuswap*. Memoirs of the American Museum of Natural History, vol. II, part VII. New York: Leiden, E. J. Brill Ltd. <<http://hdl.handle.net/2246/38>>
- Teit, J. and Franz Boas. 1900. *The Jesup North Pacific Expedition: The Thompson Indians of British Columbia*. Memoirs of the American Museum of Natural History, vol. II, part IV. New York: Leiden, E. J. Brill Ltd. <<http://hdl.handle.net/2246/13>>
- Teit, J. 1906. *The Jesup North Pacific Expedition: The Lillooet Indians*. Memoirs of the American Museum of Natural History, vol. IV, part V. New York: Leiden, E. J. Brill Ltd. <<http://hdl.handle.net/2246/36>>

- Thomason, S. G. 1983. Chinook Jargon in a Real and Historical Context. *Language* 59, no. 4: 820–870. Jstor. <www.jstor.org>
- Tobias, J. L. 1991. Protection, Civilization, Assimilation: An Outline History of Canada's Indian Policy, in *Sweet Promises: A Reader on Indian-White Relations in Canada*. J. R. Miller, ed. Toronto: University of Toronto Press.
- Townsend, Richard F. 1992. *The Aztecs*. London: Thames and Hudson.
- Urton G. and C. J. Brezine. 2005. Khipu Accounting in Ancient Peru. *Science* 309, no. 5737.
- Williams, B. J. and Jorge y Jorge M. del Carmen. 2008. Aztec Arithmetic Revisited: Land-Area Algorithms and Acolhua Congruence Arithmetic. *Science* 320, no. 5872: 72–77. <www.sciencenow.org>
- UCLA Language Materials Project. *Ojibwe*. <www.lmp.ucla.edu/Profile.aspx?menu=004&LangID=197>
- Warburton, R. and S. Scott. 1985. *The Fur Trade and Early Capitalist Development in British Columbia*. Brandon University. <www.brandonu.ca/library/CJNS/5.1/Warburton.pdf>
- Yarrow, D. 1987. *The Great Law of Peace: New World Roots of American Democracy*. <www.championtrees.org/yarrow/greatlaw.htm>