



NHH

INSTITUTT FOR SAMFUNNSØKONOMI

DEPARTMENT OF ECONOMICS

SAM 1 2012

ISSN: 0804-6824

February 2012

Discussion paper

The Protestant Ethic and the Spirit of Capitalism the Haugian Way

BY

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This series consists of papers with limited circulation, intended to stimulate discussion.

**Norges
Handelshøyskole**

NORWEGIAN SCHOOL OF ECONOMICS

The Protestant Ethic and the Spirit of Capitalism the Haugian Way

Ola Honningdal Grytten¹

Abstract

On the basis of available sources the present paper seeks to map entrepreneurial industrial activities the Norwegian puritan revivalist Hans Nielsen Hauge (1771-1824) was involved in and quantify his financial activities. It also tries to map entrepreneurial activities by his followers. The paper concludes that these activities must have played a decisive role for the economic development in Norway during the nineteenth century.

JEL Codes: N23, N33, N63, N83, O14, O16

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Introduction²

“The Puritan wanted to work in calling; we are forced to do so. For when asceticism was carried out of monastic cells into everyday life, and began to dominate worldly morality, it did its part in building the tremendous cosmos of the modern economic order. This order is now bound to the technical and economic conditions of machine production which today determine the lives of all the individuals who are born into this mechanism, not only those directly concerned with economic acquisition, with irresistible force. Perhaps it will so determine them until the last ton of fossilized coal is burnt.” (Weber 1905).

Several scholars, and perhaps the most prominent of them, Max Weber, have tried to explain why Christian puritans tended to be pioneers within industrial development and economic growth. In order to explain this phenomenon one has focused on different puritan movements and their emphasize on the concept of God’s calling to individuals and their responsibility to echo this calling. It has been argued that the response has been materialised by modesty, discipline, asceticism, high standards of working moral, accumulation of capital, entrepreneurship and reinvestment (Weber 1904, 1905, Tawney 1926, Engerman 2000).

In the case of Norway, it is argued that one of few real significant entrepreneurial environments during the nations economic take off in the nineteenth century was made up by puritans descending from the most prominent Norwegian lay preacher at the time, i.e. Hans Nielsen Hauge (1771-1824). He was a true entrepreneur within many fields, e.g. industrialization, trade, shipping services, popular education, and political, social and religious reforms (Hodne and Grytten 2000).

Problem defined

The present paper sets out to map three different aspects of early puritans’ engagement in the Norwegian economy concentrated around Hans Nielsen Hauge and his followers, as the paper seeks to:

² Thanks to Professor Bruce Dahlgaard, St Olaf College and Professor Agnar Sandmo for valuable comments.

1. Map business and industrial activities Hans Nielsen Hauge was involved in as an entrepreneur.
2. Quantify the size of Hans Nielsen Hauge's engagements as investor and banker.
3. Map traces of entrepreneurial activities among Hans Nielsen Hauge's followers.

Thus, we will here look into what kinds of businesses Hauge was involved in. We will try to find out what kind of portfolio he invested in and give estimates of the size of his engagements. The paper basically examines his role as investor and banker and quantifies the size of this engagement.

Sources and data

Quantification is made possible through different sources. The most important ones are business letters written by or sent to Hauge himself. These were collected and published by Ingolf Kornelius Kvamen (Kvamen 1971). The letters contain important information on investments, financial sources, income, costs, profits and terms of condition for transactions. In addition important information on Hauge's business activities were collected by Dagfinn Breistein and presented in a biography under the title *Hans Nielsen Hauge: Merchant in Bergen* (Breistein 1955). Important information was collected from the main trial against Hauge, where his economic activities, income and profits were mapped carefully.

Vegard Tafjord Rødal and Andreas Kiplesund have systemized available data on Hauge's financial activities (Rødal and Kiplesund 2009). In their dataset we find posts of financial transactions Hauge directly or indirectly was involved in. On the debit side they report investments, posted as real capital and loans and on the credit side financial posts, reported as credits or own capital.

The data used by Kvamen, Breistien and Rødal and Kiplesund are compiled from primary sources. Original business letters, accounts and information from the time consuming trial against Hauge are the most important sources. There is no reason to doubt their correctness. Thus, they seem solid both considering their validity and reliability. However, there are some lacunas in the datasets as not all of Hauge's

activities were registered. The volume of his engagement was, hence, larger than the estimates offered here suggest.

In addition to transactions with direct involvement by Hauge, the sources also refer to transactions he was less or just partly involved in, where some of his friends in faith or followers took a more active part. In consequence, we are able to examine both transactions where he was personally and directly involved as a major player, and transactions, where he played a more supportive role.

One of the strongest challenges with the data is to transfer the sums to relevant figures of the present time. Hauge was basically active as a businessman in the years spanning from 1799 until 1820, with emphasis on the period 1801-1804 (1806). Large parts of this period can be characterized by domestic monetary chaos with strong price fluctuations and substantial depreciation of the *daler*, i.e. the main Norwegian (Danish until 1814) currency unit at the time (Eitrheim 2005).

A joint recent research project between the Norwegian central bank and the Norwegian School of Economics and Business Administration has provided Norway with datasets of both prices and exchange rates for the actual period. The series are well documented and must be considered both valid and reliable for our purpose. (Klovland 2004, Grytten 2004a). These series also make it possible to relate Hauge's portfolios to the size of the Norwegian investment volumes (Grytten 2004b) and to normal wage levels at the time (Grytten 2007).

Max Weber and the economic ethics of Protestantism

The classical book *The Ethic of Protestantism and the Spirit of Capitalism* by Max Weber (1864-1920), originated as an anthology of essays on possible relations between Christian puritanism and the birth and growth of capitalism. (Weber 1904, 1905 and 1930). Weber's point of departure is what he describes as a fact: protestant countries were the first to become rich, and puritan groups were in the forefront of capital accumulation, investment, industrialization and economic and social progress.

Weber describes how "the spirit of capitalism" developed from protestant ethics emphasizing individual discipline, responsibilities, asceticism, and duties. His point of

departure is the predestination doctrine taken from the Swiss reformist Jean Calvin, which claims that God saves those he has chosen beforehand. Thus, one has no guarantee of salvation, one just has to believe, hope and show that one is predestined for salvation. Work became an important tool in order to conquer doubt. Secular success and a decent moral life were taken as indications of God's grace to individuals. The faithful worked hard and rational without consuming more than necessary. Modesty was considered a fruit of real Christian life. Capital was reinvested. Thus, the Calvinistic mentality led to rapid industrialization and economic growth.

Calvinism and the predestination doctrine is not representative for mainstream puritanism believe nor teaching. Thus, Weber also generalizes on the basis of a broader point of departure, as he includes Martin Luther's teaching on God's calling, aspects from pietism, methodism and baptism. In doing so he stresses the puritan movements emphasis on the very strong individual responsibility within their theology and way of life (Weber 1905).

Later, several scholars extended Weber's analysis, among them, Robert E. Tawney (Tawney 1926) and Stanley Engerman (Engerman 2000). They consider the typical way of reasoning within the capitalist system as very rational and strongly influenced by the concept of divine calling. Puritan moral views promotes saving by hard work and modest spending on the individual level. Thus, capital accumulation and investment and reinvestment naturally follow the puritan way of life. According to Weber this explains why protestant countries and environments were among the first to take huge positive steps within trade, industrialization, wealth and social security. (Weber 1905).

Recent studies have confirmed that nonconformist puritans, i.e. Christians not bound by traditional doctrines, customs or practises, were essential as entrepreneurs and in the making of the modern economic system. Their tracks were followed by economic growth, wealth and welfare. In *Introduction to the Economics of Religion* published in the *Journal of Economic Literature* Laurence R. Iannaccone argues that religious belief is often formed through rational processes and that its link between

nonconformist movements on the one side and economic entrepreneurship and growth on the other is statistical significant (Iannaccone 1998). This is in line with an exhaustive British study conducted by David J. Jeremy, resulting in a book titled *Religion, Business and Wealth in Modern Britain* (Jeremy 1998).

A very compelling and insightful work on the link between religious and in particular Christian belief and economy is the paper by Rachel M McCleary and Robert J Barro: *Religion and Economy*, published in *Journal of Economic Perspectives* (McCleary & Barro 2006). This work analyse both the statistics suggesting the link between protestant ethics and growth and the motivation for nonconformist entrepreneurship in a novel and convincing way. In fact this study serves as an influential motivator for a recent Norwegian study on the Hauge movement and how it significantly influenced the nineteenth century transformation of the economy. In this study by Bruce R Dalgaard and Magne Supphellen, Hauge and his followers' motivation and influence on the Norwegian society and economy are interpreted in light of entrepreneurial theories (Dalgaard & Supphellen 2011). This is in line with conventional views held by writers on 19th century Norwegian economic history. One of the predominant of these, Francis Sejersted, argues that Haugians made up one of the largest and most important small-scale capitalist community at the time.³

Jan Veia somewhat challenges this view in his analysis of mentality and its influence on industrial development and economic growth along the coastline in Western and Northern Norway. He argues that the Haugian business community chiefly was concentrated in the areas of herring fisheries. These fisheries required a dynamic business community since it is more mobile and unpredictable than the cod fisheries. Thus, one had to rely on efficient and mobile capital, work force and business communities. This environment suited the puritan way of thinking and to some extent probably existed before the Hauge movement was born. Thus, the entrepreneurship must be seen in light of this favourable framework.⁴ Against Veia's view, it should be stated that the Norwegian clipfish industry, i.e. processed cod by salting and drying it, became an industry dominated by Haugians, which is still the case in the early 21st century.

³ Sejersted, Francis 1993, *Demokratisk kapitalisme*, Universitetsforlaget, Oslo, pp. 28-35.

⁴ Veia, Jan 2009, *To kulturer*, Høyskoleforlaget, Kristiansand, pp. 92-105.

Hans Nielsen Hauge

During the 19th century Norway first saw significant and consistent long-run economic growth, despite fluctuating business cycles. (Hodne & Grytten 2000 and 2002). At the core of the development in the earliest decades we find some very important entrepreneurs, like the Anker family, Count Wedel Jarlsberg and Jacob All. Another important pioneer, and probably the most underestimated one, was Hans Nielsen Hauge (1771-1824).

Hauge had a modest background as the son of a peasant from Tune, far east in the country. Despite his modest background he ended up as a significant entrepreneur, merchant, banker, investor, speculator, ship-owner, industrial pioneer, editor, writer, publisher, laypreacher, leader of a great popular opposition and movement, as well as social, political and religious reformist. His significance for the foundation of modern Norway can hardly be exaggerated. We do not find a stronger 19th century entrepreneurial network than that we find between Hauge and his followers. This was first confirmed in a study from 1947 by Christen Jonassen showed that the industrial development in Norway did not start until the Puritan movement, primarily represented by Hans Nielsen Hauge and his followers, gained foothold in the country (Jonassen 1947).

The ideas promoted by Hauge were core values for the establishment of what we call modern Norway. His followers were active in the political, cultural, religious, business and industrial life. They were pioneers within democracy building, rule of law, due process of law, liberalism, welfare, popular enlightenment, entrepreneurship and social reforms. They were against centralisation of power, public spending, privileges, monopolies and political and religious force systems. (Kullerud 1996 & Sjursen 1997).

Motivation

Central to Hauge's motivation as a religious, industrial, social and political reformist and entrepreneur was a deep spiritual experience when he was 25 years of age. This was leading up to conversion from traditionalism to a more committed nonconformist

life in service for God and his fellowmen. He soon started up as a lay preacher and saw it has his divine calling to meet both spiritual and physical needs. Both his spiritual conversion and his care for spiritual and physical needs place him in evangelical Christian waves at the time. In theology he was firstly inspired by German pietism and secondly by British puritanism. In social, political and economic entrepreneurship he was firstly inspired by the British puritans and secondly by the German pietist. We can e.g. find similar experiences and views attached to the father of the methodist movement, John Wesley (1703-1791), and the founders of The Salvation Army, William (1829-1912) and Catherine (1829-1890) Booth.⁵

Like his British spiritual relatives Hauge's main goal hardly was personal success or wealth. In fact he lived a very modest life. He also preached against wealth used for personal consumption. A core value in his ethics was decent and efficient management of resources God provided for his people (Ravnåsen 2002). Modesty was considered as both social and religious duty and pleasure. Any kind of profit should be reinvested to the benefit of progress and the needy (Norborg 1966).

Hauge argued that persistent gifts to the poor could destroy incentive structures and deploy them of development opportunities. The best form of aid was in his view to enable people to provide for their families to the benefit of both themselves and the society. The society would better optimize its welfare gains by assisting people in order to manage on their own. Hauge considered work and business as two sides of spiritual life, as long as profits were reinvested in business, people or other forms of divine services. His views were very much disputed by the elite of the time, and his activities were openly debated, as he seemed to mix spiritual life and secular business. Hauge himself explained himself in a number of chronicles in newspapers and magazines:

"Those who will not work should rather not eat. (...) I will, however, build factories, be involved in trade, work in help of crafts, and when time and energy allows, preferably cultivate the land." (Bergens Adressecontours Efterretninger 1802).

⁵ Hattersley,

Hauge's business ethics mirrored the ethics of puritans abroad, and in particular he was under influence of both British puritans and German pietists. British puritans mainly inspired his way of conducting business and his missionary eagerness. The German pietists predominantly influenced his theology and way of living (Shaw 1955). Both groups praised the employees' obligation to work hard and the employer's responsibilities towards his employees and their families and the community. Everybody should live and work according to his or her Christian consciousness. Hauge argued that:

"(...) Thus, naturally the body demands its basic needs, thereafter one must work by ones own strength as much as one is able to." (Hauge 1804).

He also stressed that God *"provides us with His blessings hidden by our labour, efforts and the gifts of the nature."* (Hauge 1804).

He described the employer's responsibilities in a very challenging way:

"The employees are never subjects, but subordinates, (...) if the employer does not provide his subordinates fair salaries, food and clothing in due time the employer is a thief" (Hauge 1804).

In a recent study Michael E and McCullough and Brian L. B. Willoughby concludes that strong religious belief influences self-control, self-regulation and motivation, resulting in substantial work commitment, self efficacy, persistence and sense of meaningful work (McCullough & Willoughby 2009). In his master thesis, titled *The Ethic of Haugianism and the Spirit of Capitalism* from 2010 Eirik N Helgøy convincingly argues that Hauge's ethics and motivation along these lines are still going strong in parts of present Norwegian business life (Helgøy 2010).

Imprisoned

Despite Hauge started from scratch, he successfully managed to build an economic and religious empire during a very short time. He was arrested ten times between 1797 and 1804, and was imprisoned without verdict for seven years from October 1804 onwards. Admittedly, he was released for a seven month period in 1809 in order

to help the authorities with the establishment of salt distillation plants during the British blockade after the Danish King chose to support Napoleon's war against the United Kingdom.

Hauge was convicted to two years of slavery in 1813. 600 witnesses were interviewed in hope of pleading him guilty of economic and financial fraud. His financial transactions and dispositions were carefully investigated. However, the prosecution authorities could not find anything illegal. Finally, he was sentenced to jail for illegal religious activities. He had been preaching without the consent of local vicars several times, which was illegal in Norway at that time. During 1814 the sentence was reduced to a fee of 1.000 riksdaler, which basically was paid by people from his business network. (Bull 1908, Hauge 1963 and Elseth 1998).

Despite huge parts of the clergy feared Hauge's spiritual influence and theology; it was hardly theologians who were his strongest opponents. The Danish-Norwegian kings in Copenhagen, Christian VII until 1808 and thereafter Fredrik VI, feared that Hauge would establish a strong popular opposition to the Danish rule over Norway. Since he was extremely popular in parts of the general public and had faithful followers almost everywhere, promoting individual, political, economic liberty, he was considered a serious threat to the Danish superiority. Thus, the political motivation for his arrest should not be underestimated. (Christoffersen 1996). Hauge's followers were active spokesmen for a sovereign and independent Norwegian state, and took active part in the demolition of the Danish-Norwegian union. (Kullerud 1996 & Sjursen 1997).

International wave

Hauge's influence on the Norwegian society must be considered imperative in many ways. Despite devastating years of imprisonment, His ideas survived among his followers. Many of the values, perhaps better known under the label protestant ethics, like high working moral, discipline, modesty and trust. Hauge authored 33 books and booklets in addition to shorter pamphlets. These were published in as much as half a million copies. Thus, he must have been one of the most commonly read authors of his time. Several of his writings were translated into foreign languages and widely

spread and read among puritans e.g. in the United Kingdom, Germany, France, Denmark, Sweden and Finland.

Hauge should be understood in light of international puritan waves at the time, in particular in Western Europe, the British and Dutch colonies from the 17th to the early 20th centuries. The puritans were in favour of individual, religious, political and economic liberalism. A core idea was that the individual him- or herself was directly responsible to God. There was no pope, clergy, king or ceremony, which could save anyone, only the individual's answer to God's direct calling. The puritans were strongly overrepresented among entrepreneurs of their time. It has been claimed with significant authority that the movement in many ways played a central role in the establishment of the modern society represented by democracy, liberalism and the capitalist economy (Norborg 1970, Smith 2010).

Hauge was part of this international trend and movement, strongly influenced by Lutheran pietism from the European continent and puritan mentality from the United Kingdom. He emphasized the individual responsibility towards God and fellow human beings. He established more than 30 production plants in addition to different kinds of business activities in other fields.

Hauge's involvement as industrialist and businessman

In 1801 Hauge earned his merchant privileges in Bergen, which at the time was the economic capital of Norway. The city, with a population of almost 17.000 at the time, was to be his base for an impressive expansion until 1804, when he was permanently arrested. He was a controversial, however, still a highly respected man under the protection of one of Norway's most admired statesmen at the turn of the century, Mr Johan Nordahl Brun (1745-1816), bishop in the city from 1804 onwards. Still, after his imprisonment he continued with his entrepreneurial activities and writings. Here we will list important parts of his engagement as industrialist and businessman.

Property

In order to become a privileged merchant it was required that one owned his own property, which should stand as the formal address of the company. Hauge was able to buy such a building in Bergen during the spring of 1801. Thus, it was possible for

him to act as an independent merchant. The building was bought from his own brother-in-law Mr Johan Loose, who became member of Hauge's network. Mr Loose was permitted a decent flat in the house after the take over. Later, Hauge took part in consortiums buying several properties in central Bergen. The buildings were taken care of by some of his followers. In addition poor people were subsidised in order to pay their rents (Breistein 1955).

Agriculture

Hauge wanted to buy and run farms, which could give daily income for poor people as well as producing food on a rational a modern basis. He took an active part in the purchase of Svanøe manor in Sunnfjord. He was not satisfied with the productivity during its first farm manager's rule. Thus, he gave the managing responsibilities to Ole Torjussen Helling, who proved to be a clever and innovative farmer, adding a mill, salt distillation plant and a small shipyard to the farm engagements. Mr Helling soon proved to be a prominent businessman in Bergen.

Mills

In 1815 Hauge started his own grain mill along the Svartediket in Bergen and later at several locations in Southern Norway, among those Bjølsen Mill in Oslo, which became one of the biggest in Norway. At the same time he bought different farms near by Bergen and in other areas of the country. Most of them were extremely successful (Breistein 1955).

Fish processing

Hauge was engaged in equipping fishing boats for herring fisheries, a very dynamic industry at the time. When doing so he learned by some of his followers from the Bergen and Sunnmøre district different ways of fish preservation, like salting, drying and smoking. He saw no use in keeping this kind of information for himself, and shared it within his network. Clipfish, i.e. salted and dried codfish gained market shares from dried fish, and the industry grew rapidly along the west coast of Norway. The bulk of the successful producers were puritans with relations to Hauge or his networks. This connection is still evident along the coastline.

Copper mine

During one of Hauge's missionary journeys in South-Norway in 1803 some of his followers told him they had found raw copper at Vingelen in Østerdalen in East-Norway. Production was soon started up with capital from some of his wealthy partners in business and faith. However, a dispute over owner rights made Hauge go for a deal with the opponents, in which his consortium agreed to sell the mines. So they did – with a considerable profit (Kvamen 1971).

Paper mills

Hauge took an active part in the establishment of a paper mill in Aadalen, Eastern Norway. Despite active opposition and accusations of document forgery from the central authorities, fearing the Haugeans to gain power over the written word, he never gave up this project. On the contrary, he built a paper factory in Eiker, close to the town of Drammen. His brother, Mr Mikkel Hauge, was appointed director. The building process was completed in 1802. The factory soon employed 50 persons producing top quality paper.

Another paper production plant was established at Fennefoss in Southern-Norway on the initiative by Hauge. It was considered very efficient and profitable. It did function as a combined paper mill and mission hall, as became usual as the Hauge movement grew rapidly (Kvamen 1971).

Printing house

During his evangelical campaign to Southern-Norway in 1803 Hauge bought a printing house in Kristiansand. In this he saw a possibility of printing his own books and even magazines and a newspaper, i.e. *Christiansand Adressecontoirs Efterretninger*. The business was not profitable until Mr Christoffer Andersen Grøndahl was appointed by Hauge as manager. Christoffer and his son Martin Grøndahl made the establishment to one of the most successful and prominent in Norway. It later moved its head office to the capital, Christiania. (Breistein 1955).

Brick factory

In 1804 Hauge, due to huge crowds, had to move evangelical meetings to a former brick factory at Eeg close to Kristiansand. He soon suggested that a young man in his network, Mr Ole Eyelsen, should restart production. The buildings were bought with

Hauge as investor and banker. From 1808 it earned a considerable profit and was expanded regularly. From 1812 Eyelsen started up the production of domestic coal ovens (Breistein 1955).

Merchant houses and trade stations

From his base as merchant in Bergen Hauge bought and expanded several trade stations along the coast of South-Norway. The merchant house at the fishermen's village Sør-Giæslingan in Trøndelag is perhaps the best known of these. Hauge assisted his good friend, lay preacher, merchant and industrialist Mr Arent Solem to buy the place. It served as a key base in a network of trade stations along the coast ensuring fairly good control of distribution of products traded by Haugians.

Hauge and his closest associates maintained their network by selling and buying products through these stations, appointing managers and providing credits. In addition he distributed business letters containing both spiritual and economic teaching. Buildings at the stations were also often used as halls for evangelical meetings (Aarflot 1979).

Shipping

Hauge also did career as a successful and innovative ship-owner. The idea was basically taken from his brother-in-law, Mr Johan Loose, who bought and sold ships with high profits. Hauge served both as shipbroker, buying and selling tonnage, and as ship-owner. The idea was to raise capital by ship broking in order to invest in ships for ownership. These could also be used in transportation of products produced or traded within his business network.

During 1803 and 1804 Hauge invested in no less than nine sailing vessels, of these two frigates. The ships were named:

Forsøg (Attempt)

Anna Helena

Haabet (The Hope)

Nicolai

Aurora I

Aurora II

Aurora III

Stadt Bergen (City Bergen)

Christiane Margaretha

Ship broking and owning was a very risky business during the Napoleonic wars. Hauge experienced both heavy losses and impressive profits. In total his engagement as ship-owner must be considered successful, when his broking activity was an important tool in order to raise fast money for investments (Breistein 1955).

Shipyard

In order to build and repair his own and other ship owners' vessels, Hauge also started his own shipyard, with great success. Thus, he turned out to be a pioneer also in the Norwegian shipbuilding and repair industry. Hauge and some of his associates bought the Svanøy manor in Sunnfjord, Western-Norway, during the first years of the 1800s. In addition to farming and fishing they conducted a sawmill and started a salt distillery and a successful shipyard for small and medium sized vessels (Lindstøl 1914).

Textile mills

Hauge gained increasing interest in the textile industry. Both him and his followers set up several textile plants. The most important one established by Hauge was Drammen textile mill in 1818. In 1821 it was moved to Solbergelva at Nedre Eiker close to Drammen. It grew to become the greatest spinning mill in Norway, and a pioneer company regarding labour welfare. Few Norwegian companies took better care of its employees than Solberg Spinneri, which continued its production until 1992. Connected to the textile spinning, Hauge started with textile colouring plants and production of high quality clothing (Breistein 1955).

Distilleries

Contrary to many of his followers, Hauge was never a teetotalist. He spoke up against alcoholism and bad effects of alcohol consumption. However, he did not consider moderate and careful alcohol consumption as inferior conduct. In fact, he set up several distilleries connected to farms and farm production. The aim was profits,

control over the consumption of alcohol in order to reduce bad side effects and ensuring his followers and employees high quality spirits to moderate prices.

Investor

In order to establish his business empire Hauge invested heavily in project ran by him self or companions. Sometimes he took active part in the projects, at other times his role was more a passive one, limiting himself to investment in pioneer or running business or industries. By doing that he actively contributed to get business going. He often invested in risky projects with borrowed money. The volume of his engagement as investor was quite impressive. His losses were surprisingly small. By doing so Hauge did not only contribute to his own industrial projects, but also those of his brethren in faith or just promising industrialists or businessmen regardless of religious affiliation (Helgøy 2010).

Banker

At the time of Hauge's business career there was no regular bank in Norway. Hauge needed both to borrow for himself and to provide others with loans. Thus, he filled a vacancy as a banker, receiving deposits and lending money to the public. The banking capital was to a large extent based on deposits or loans from friends with available capital in savings. He used this money in order to provide loans to entrepreneurs, industrialists, merchants, ship-owners and businessmen. The volumes of his loans granted to others were substantially higher than received deposits. Thus, he operated by significant gearing in order to profit from the transactions. By doing this Hauge became an important banker in a time when Norway lacked both commercial and saving banks. Also, Hauge tried to motivate some of his followers to establish saving's banks, which they to a large extent did from the mid 1820s, just after his death in 1824.

Portfolio strategy

As can clearly be seen, Hauge had a very spread portfolio and, thus, the risk was well distributed within different trades and businesses. Most of the portfolio was built up during three years, 1801-1804. During this very short time and without any capital base the peasant's son came forward to become a substantial and successful entrepreneur in many fields. He must to a very limited extent have been risk averse.

Rather on the contrary. Perhaps we can trace this attitude in his signet or company stamp, drawn from the gospel of Mathew, chapter 13, and verses 45-46 in the Holy Scriptures:

"Again, the kingdom of Heaven is like a merchant in search of fine pearls; on finding one pearl of great value, he went and sold all that he had and bought it."

Hauge typically appointed managers for different kinds of trades and industries he was engaged in. Also in several projects were he took a marginal role. The appointed managers often moved quite a distance to take up their commision. It may seem, as it was a deliberate policy to recruit local leaders outside the communities. An important trend was that the managers also became spiritual leaders of the local band of friends or congregations founded by Hauge. Hauge acted both as an informal bishop and director general of a business conglomerate. He gave both spiritual and business education to his appointed followers during the first years of their ministry. Thereafter, he left them to manage more or less on their own, but still as part of his network (Dalgaard & Supphellen 2011). Hauge educated his followers in technical skills, product knowledge, purchase and sales strategy, marketing, distribution, accounting, labour welfare, business strategies, theoretical and practical theology and pastoral care. He was truly a pioneer in many fields.

Scale

On the basis of the historical sources kept as evidence at the trial against Hauge, business correspondence and financial accounts it is possible to quantify the bulk of his investments and financial engagements 1799-1823 (Rødal & Kiplesund 2010).

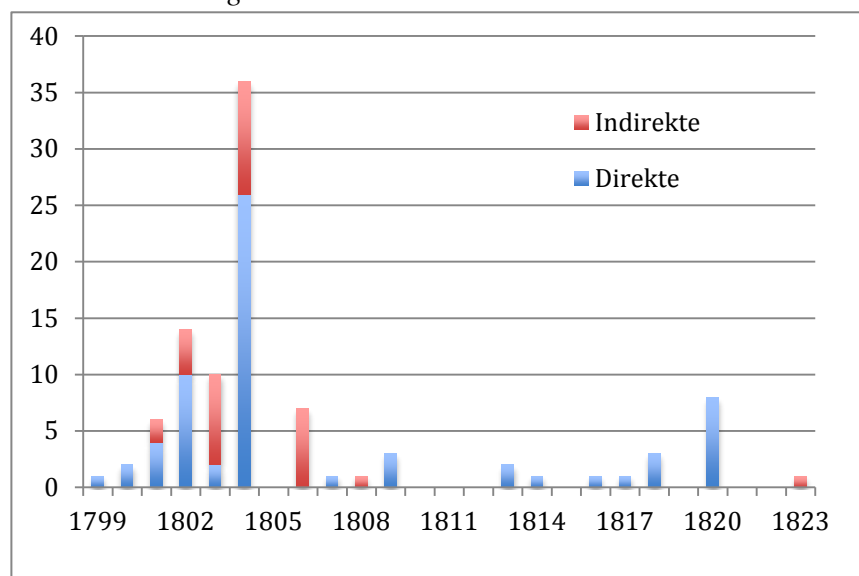
The results are nothing less than impressive. We find more than 30 companies directly stemming from Hauge's entrepreneurship. Additionally, we find dozens of establishments where he contributed as investor, banker or with other key resources, When adding merchant and naval vessels, merchant activities and farms ran by members of his network in connection with Hauge, we find records of more than 150 business or industrial units, where he in one way or another was involved. (Rødal & Kiplesund 2010 and Breistein 1955).

Financial transactions

It is possible to follow Hauge's major financial transactions, here defined as transactions completed in order to finance business activities or reallocate money in order to earn profits. The bulk of his transactions were carried out before his arrest in October 1804. However, his financial activities also continued after his imprisonment.

Hauge obviously earned considerable goodwill. During the years 1799-1823 the records report that he was engaged in 98 considerable finance transactions. In the top year 1804 alone we find 36 such transactions. Additionally, we know that less important transactions were unrecorded (Rødal & Kiplesund 2009).

Chart 1. Number of significant financial transactions Hauge was involved in 1799-1823



Source, Rødal o& Kiplesund 2009, 79-82.

Chart 1 shows the number of larger financial transactions Hauge was directly (65) and indirectly (33) involved in 1799-1823. The volume peaked in 1804, the very same year, as he was long-term arrested. Thereafter, due to several years of imprisonment his engagement ceased.

We don't know the number of larger financial transactions carried out in Norway at the time of Hauge. But we do find that the bulk of his engagement took place before Norway got its first regular bank. The Norwegian central bank was founded in 1816. The first savings bank, Christiania Sparebank, took up its engagements in 1822. The

first commercial bank, Christiania Bank & Kreditkasse, started in 1848. Thus, the Norwegian financial markets must have been limited in the early 1800s.

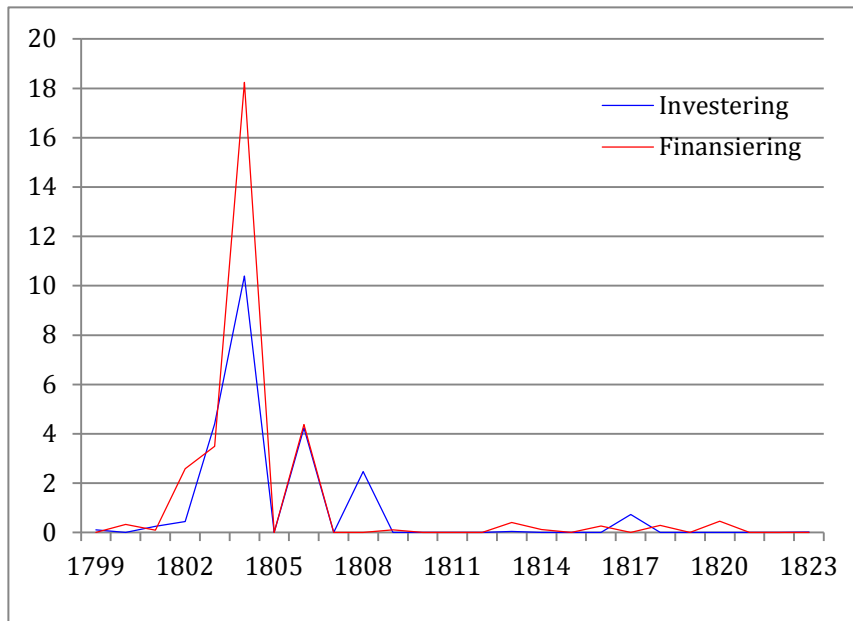
Volume of Hauge's financial engagements

In order to get a more detailed picture of the volume of the financial transactions Hauge was involved in we will look more closely at the volumes of the transactions. There are many problems connected to these sums. In the first place, they are reported in different kinds of currencies:

1. Speciedaler (Danish), until 1813, with a par exchange value to the Norwegian krone of NOK 4,00.
2. Rigsdaler Danish Courant, 1795-1813, with a par exchange value to the Norwegian krone of NOK 3.20.
3. Rigsbankdaler, 1813-1818, with a par exchange value to the Norwegian krone of NOK 2.00.
4. Speciedaler (Norwegian), 1816-1874, with a par exchange value to the Norwegian krone of NOK 4.00.

Substantial inflation and money depreciation was a considerable problem in the period in question. The three first mentioned currencies were all significantly devalued. During periods with introduction of new currencies, we apply the records given in the new currency to avoid the problem of devalued outgoing currencies. The transactions are thereafter calculated into kroner according to the exchange rate of the currencies par values to the krone. In order to arrive at relevant estimates of the values of the sums, they are inflated with the general inflation rates up to present values. This is made possible by using the historical consumer price index for Norway published by the central bank. (Grytten 2004a, Norges Bank 2010 and SSB 2010). The results of this operation are reported in chart 2.

Chart 2. Significant financial transactions Hauge was involved in. Reported in mill 2010-NOK. Inflated with the Norwegian historical CPI.



Sources, Rødal & Kiplesund 2009, 79-82, Grytten 2004a, 92-93, Norges Bank 2010 and SSB 2010.

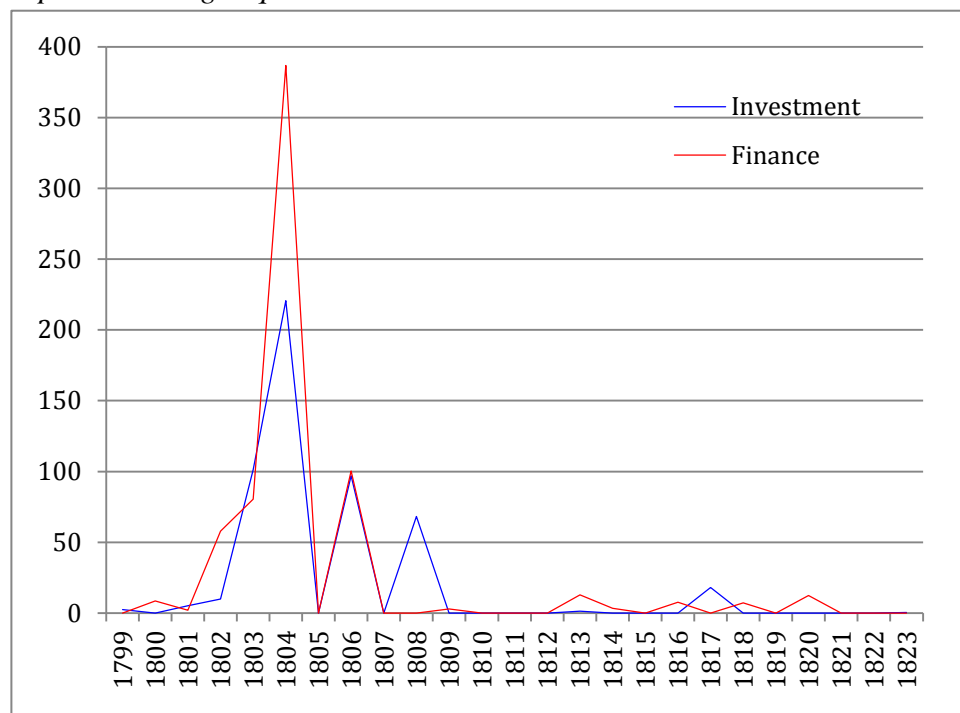
During the peak-year 1804 Hauge financed projects for 18.2 millions 2010-NOK. At the same year he invested for 10.4 millions. Taken into account that the Norwegian GDP in the first years of the 1800s hovered around 12 000 million 2010 NOK, the sums are impressive (Grytten 2004b, Norges Bank 2010 & SSB 2010). The national investment volume that year was probably about 800 million 2010 NOK, meaning that Hauge was involved in around 1.3 percent of the total Norwegian investment volume that year. At the same time he provided finances for sums accounting to a little less than 2.3 percent of total Norwegian investments in 1804. Thus, Hauge must have been one of the most important investors and bankers at the time, despite minor own capital.

The inflating method above has its obvious drawbacks. One is that we do not use a price index for financial transactions, as such an index do not exist. The inflating method is connected with some evident problems. In the first place we do not use an inflator for financial transactions, as such an inflator does not exist. The most important weakness is, however, that this method does not take into account the considerable growth in purchasing power since the early 1800s until present days. One way of accounting for this problem is to look at how many man-years ordinary workers had to work in order to cover the transactions with their salaries. Thus, the sums are calculated into annual wage equivalents.

The Norwegian central bank has published series of annual wages from 1726 until present (Grytten 2007). By using these series we may find the number of normal man-years per transaction. In order to express these in present values we transform the number of man-years to normal wages in 2010 (SSB 2011).

The results are shown in chart 3. According to our calculations in wage equivalents he raised 387 million for financial transactions and 220 million for investments in 1804 alone. Due to lack of records of some transactions, the sums were in fact even higher. His activities in the financial market decreased considerably during and after his arrest 1804-1811 and 1813-1814. One of the big losers must have been the Norwegian economy.

Chart 3. Significant financial transactions Hauge was involved in. Reported in wage equivalents in mill 2010-NOK.



Sources, Rødal & Kiplesund 2009, 79-82, Grytten 2004a, 92-93, Norges Bank 2010 and SSB 2010.

Hauges' investment portfolio

By utilising the available data it is possible to examine Hauge and his partners' investments. In the accounts left by Hauge investments were either recorded as fixed capital or loan. Table 1 reports that more than 60 percent of his personal direct

investments were in fixed capital in merchant or industrial activity. Close to 40 percent were granted loans to other actors. This confirms his position as a banker.

Examining transactions where Hauge was more indirectly involved, we find that they almost unanimously were invested in fixed capital. Apart from Hauge and his closest network most Haugians acted rather as entrepreneurs and investors than creditors.

Table 1. Investments Hauge was involved in. In mill 2010-NOK. CPI-inflated.

Investments	Mill 2010-NOK			Percent	
	Fixed capital	Loans	Sum	Fixed capital	Loans
Direct	3.079	2.017	5.096	60.4	39.6
Indirect	18.714	0.018	18.732	99.9	0.1
Sum	21.793	2.035	23.828	91.5	8.5

Sources, Rødal & Kiplesund 2009, 42-43, Grytten 2004a, 92-93, Norges Bank 2010 and SSB 2011.

According to our data nine tenth of the investments Hauge was involved were spent on fixed capital. However, it is likely that loan transactions are under represented in the sample used here. This may explain the gap between the financing and investment transactions (Rødal & Kiplesund 2009).

Despite capital used for granting loans is most probably underestimated there is no doubt that investments in fixed capital was significantly more common. The discrepancy between aggregated financial records and investment records amounts to 6.501 million 2010 NOK. The residual was probably covering operational costs and credits. When we take his into account we end up with an investment distribution of 71.9 percent on fixed capital, 6.7 percent loans and 21.4 percent operational costs and credits. Thus, loans and credits may have amounted to one fifth of the investment engagements. Hence, Hauge's banker function was probably more than twice as large as suggested in table 1.

Financial sources

From where did Hauge and his network get their capital? Among his partners we find both people with a considerable and a weak capital base. Hauge's engagement in order to assist talented entrepreneurs often made him act as a broker between these two groups.

Table 2 offers an overview of financial transactions Hauge was involved in. It reveals that the solidity was high in joint ventures, with half of the capital mobilised by loans. On projects where he was alone we find that 96 percent of the capital was granted as loans. This means a gearing coefficient of 25, which was extremely high in the pre-banking Norwegian economy. This emphasises the high credibility and goodwill he must have earned.

Table 2. Financial transactions Hauge was involved in. Mill 2010-NOK. CPI-inflated.

Financing	Mill 2010-NOK			Percent	
	Own capital	Debt	Sum	Own capital	Debt
Direct	0.578	14.340	14.918	3.9	96.1
Indirect	7.557	7.855	15.411	49.0	51.0
Sum	8.134	22.195	30.329	26.8	73.2

Sources, Rødal & Kiplesund 2009, 42-43, Grytten 2004a, 92-93, Norges Bank 2010 and SSB 2011.

Entrepreneurial legacy

As a prominent entrepreneur in difficult times for the Norwegian economy, Hauge trained many of his followers to become highly qualified merchants, industrialists and managers. They became true pioneers within business, industry, labour welfare, education, popular enlightenment and formation of the Norwegian society for more than one hundred years. Many of these traditions still exist. It should be noted that neither Hauge nor his first followers created any formal organisation. The so-called Haugians were individuals or groups, who were inspired by his work and writings in religious, ethical and behavioural ways. It is hard to tell how many they were and to which extent they were inspired by him. In this we have to rely on the testimonies given by themselves or people close to them. Trygve Brandal argues that the mentality promoted by Hauge marked entire societies along the coast, as it formed both their way of thinking and their way of conduct. Thus, the majority of entrepreneurs were directly or indirectly influenced by his ideas.⁶

The Norwegian writer Alexander Kielland has given the following description of the 19th century entrepreneurship of Haugians within the herring fisheries in one of the

⁶ Brandal, Trygve

major ports for landing and exports, Stavanger. Most of these were originally peasants and fishers and worked themselves up into the bourgeoisie:⁷

“Year by year they were successful: their capital increased: however, it was immediately reinvested into business. Those who one year had salted 1.000 barrels, would the next year take 3.000; they were active in all areas, set all sail, and while their conduct was silent with psalms and humble speech, they were in reality risktakers – yes, indeed audacious speculators.”

The increase in wealth was debated among the brethren, and for some it was considered immoral conduct. Hence, some groups of Hauge's followers became negative to involvement in the business community. They often lost the dynamic momentum of the movement and retarded both in numbers and strength. However, the dynamic groups survived and took active part in the development of modern business.

Followers in faith and entrepreneurship

In 1801 Hauge met Ole Torjusson Helling at the mountain village Ål in Hallingdal. Hauge persuaded him to sell his farm in 1804 in order to contribute to the financing of the Svanøy manor in Sunnfjord, Western Norway. Hauge originally financed the purchase. However, he gradually let Helling take over ownership. According to traditional custom the latter changed his surname to Svanøy, since he held residence there. He became responsible for large-scale farming, fisheries, a sawmill, salt distillation and finally a shipyard, all in partnership with Hauge. Svanøy became a privileged merchant in Bergen in 1812 in order to expand his business, still in close connection with Hauge (Lindstøl 1914). He later became member of the Norwegian parliament for three periods between 1821 and 1842.

Michel Grendahl (1775-1849) is known as one of the most prominent Haugians within Norwegian politics in the first decades after the independence in 1814. He moved from his father's farm in Rennebu in Eastern Norway to Bergen, where he in

⁷ Kielland, Alexander 1882, *Skipper Worse*, in *Garman og Worse og Skipper Worse*, Gyldendal norsk Forlag, p. 255.

1799 first joined the Hauge movement and later became one of Hauge's closest friends. He easily picked up German and English and became involved in shipbuilding and shipownership. In 1806 he moved to Kristiansund at the coast of Mid-Norway, where he became a privileged merchant and shipbuilder, with a special engagement in helping needy people. He became a prominent member of parliament 1830-1842, where he spoke out for religious and mercantile freedom and social benefits for the poor. He was in strong opposition to heavy public spending on bureaucracy (Gimse 1923).

One of Grendahl's Haugian followers, was Peter Joachim Möller (1793-1869), who personally was granted a scholarship by Hauge in 1822 in order to study pharmacy. Thus, he became one of the most educated pharmacists in Norway at the time. He founded a national chain of pharmacies from 1830 onwards. He also founded *Lilleborg Industries* in the early 1830s. This has become one of the major Norwegian industrial companies in the production of cleaning remedies. Möller was the first person in the world to produce fish oil for medical use from cod's liver in 1852-1854. And set up production plants at the island Giske outside the town of Ålesund at the west coast, Kristiansund at the west coast and Kåfjord in northern Norway. Hence, he pioneered the omega 3 industry (Hodne 1981).

Arent Solem (1777-1857) from Klæbu in Trøndelag, mid-Norway, was a close friend and supporter of Hauge. Like his mentor he was a farmer's son, who became an important merchant and investor in one of the biggest Norwegian cities, Trondheim. He invested heavily in property before he started a textile mill at Moholt, just outside Trondheim. He also bought the merchant centre at the fishermen's village Sør-Gjæslingan, also in Trøndelag, after strong advice from Hauge. This enabled him to & stronger into the puritan network of trading stations along the coast.

In 1825 he moved to the Norwegian capital, Christiania, and established himself as an important merchant and industrialist. He bought several farms and started one of Norway's largest flourmills and sawmills at Bjølsen. He also developed and modernised mills previously set up by others within the Haugian network.

After Hauge's death Solheim was increasingly more inspired by another popular religious movement at the time, inspired by the prominent minister Nicolai Fredrik Severin Grundtvig (1773-1872). In some aspects this movement stood in contrast to the Hauge movement. However, when he moved back to Trøndelag in 1840 he came back to his roots. In consequence, he started a new shipyard at Hommelvik east of Trondheim. (Aarflot 1979).

Another successful Haugian was Niels Devold (1790-1872) from Romsdalen, Northwest Norway. His father in-law Halvor Halvorsen Ophuus had learned manufacturing processes of textile from Hauge in person. Ophuus represented Romsdal County in the parliament from 1815. He left his knowledge of textile manufacturing to his son in-law Niels Devold. Thus, in 1818, the latter, started a textile factory in Ålesund at the West coast. His engagement developed further into merchant activities, fisheries, exports and ship owning. His son, Ole Andreas Devold (1827-1892), founded during 1849-1853 the textile firm O.A. Devold, which was further developed by his son Olaf Devold (1856-1933).

As pioneers on product innovation and technology O.A. Devold soon became a leading company in Europe within woollen textiles it was one of the first European companies to introduce electrical lightening, hydro electrical power and telephone communication. They provided their labour stock with high quality housing, a hospital, missionhalls and church. The company also introduced unemployment and retirement benefits decades before the labour movement demanded it as a general necessity. Devold even set up scholarships for the children of their white and blue collar employees. (Lerheim 1952).

In Volda, in the same district as the Devold's operated, Sivert Aarflot (1759-1817) started the first rural library for the public. He also founded the first rural Norwegian newspaper, publisher and printing house during the early years of the 1800s. He served as editor, postmaster, author, teacher, pharmacist and the senior civil servant of the local community.

The Haugians were well represented in the parliament and were central actors in the development of a modern democracy, religious, industrial and political freedom and

liberalism. They were sceptical to centralisation of power, monopolies and privileges. Another Haugian entrepreneur, Rasmus Aarflot (1792-1845), son of Sivert Aarflot, was elected Member of Parliament for Romsdal Amt (Møre & Romsdal). Johannes Aarflot (1824-1891) continued their work. He was elected Member of Parliament and developed the business as printer and publisher. He was the founder of one of the first enlightenment and educational bookstores, located to the town of Ålesund (Sulebust 1999).

The shipyard industry, fish processing and ship owning companies in Western Norway were to a large degree established by entrepreneurs under influence of the Hauge movement. This roots are still alive. One evident example is Per Sævik (1940), major, member of parliament, president of the Norwegian shipowners' association, skipper of fishing vessels, ship-owner and industrialist.

One of the senior entrepreneurs of the modern Norwegian furniture industry, Mr Mindor Hjellegjerde, who considered himself as a Haugian, claimed that around 50 of 60 furniture producers in a population of 5,000 in the community of Sykkylven in the 1960s were significantly influenced by the Hauge movement. 19 grew to become important furniture factories. A minimum of 14 of these had founders with a clear Christian puritan background. The most successful was Jens Ekornes (1908-1976), ambassador for several Christian missions, major and in 1934 founder of one of Scandinavia's largest furniture conglomerate, Ekornes.

Conclusions

Detailed early 19th century sources on financial transactions enable us to take a closer look at one of the most prominent Norwegian entrepreneurs at the time, i.e. the lay preacher and reformist Mr Hans Nielsen Hauge. We have stressed financial transactions, in which he actively took part during the period 1799-1823 with the bulk located to the years 1801-1804. His main motivation seems to have been the creation of jobs and welfare rather than personal profits. His puritan way of living and way of thinking made the reinvestment rate very high.

Despite this limited financial strength to start with, the young farmer's son was extremely successful. During the five years 1799-1804 he established an impressive

business empire as a merchant, ship owner, farmer, broker, industrialist banker and investor. Our data suggest Hauge must have been one of the most important bankers and investors of the time. At its peak, in 1804, he may have been involved in 1.3 percent of the total Norwegian investment volume. His financial activities could have amounted to 2.3 percent of total national investments. Many of his nonconformist followers made up some of the most important entrepreneurial clusters in Norway for more than a hundred years after his death. We still find clear traces of this culture in Norwegian business life. Hans Nielsen Hauge must have been very important for industrial and economic growth in nineteenth century Norway.

Literature

Aarflot, Andreas 1974, *Hans Nielsen Hauge, his life and message*, Angsburg Pub House. Minneapolis.

Brandal, Trygve

Bergens Adressecontours Efterretninger 1802

Breistein, Dagfinn 1955, *Hans Nielsen Hauge, Kjøbmand i Bergen*, John Griegs forlag, Bergen.

Christoffersen, Svein Aage (ed) 1996, *Hans Nielsen Hauge og det moderne Norge*, KULT/NAVF, Oslo.

Dalgaard, Bruce R & Magne Supphellen 2011, "Entrepreneurship in Norway's economic and religious nineteenth-century transformation", *Scandinavian Economic History Review*, vol 59, No. 1, pp. 48-66.

Eitrheim, Øyvind 2005, "Fra Bogstad Gård til pengestabilitet", Eitrheim, Øyvind & Jan F Qvigstad (eds), *Tilbakeblikk på norsk pengehistorie*. Norges Bank, Oslo.

Elseth, Egil 1998, *Hans Nielsen Hauge: Bondegutten som satte Norge på ende*, Gyldendal Tiden, Oslo.

Engerman, Stanley 2000, "Capitalism, Protestantism, and Economic Development", Review article, EH.NET.

Gimse, A 1923 "Haugianeren og demokraten Mikkel Grendahl", *Norvegia Sacra*, pp. 145–189

Grytten, Ola Honningdal 2004a, "A consumer price index for Norway 1516-2003", Eitrheim, Øyvind, Jan Tore Klovland & Jan F. Qvigstad (eds), *Historical Monetary Statistics for Norway 1819-2003*, Norges Bank, Oslo.

Grytten, Ola Honningdal 2004b, "The gross domestic product for Norway 1830-

- 2003”, Eitrheim, Øyvind, Jan Tore Klovland & Jan F. Qvigstad (eds), *Historical Monetary Statistics for Norway 1819-2003*, Norges Bank, Oslo.
- Grytten, Ola Honningdal 2007, “Norwegian wages 1726-2006 classified by industry”, Eitrheim, Øyvind, Jan Tore Klovland & Jan F. Qvigstad (eds), *Historical Monetary Statistics for Norway – part II*, Norges Bank, Oslo.
- Hauge, Alfred 1947: *Hans Nielsen Hauge: Guds vandringsmann*, Ansgar, Oslo.
- Hauge, Hans Nielsen, *Forklaring over Loven og Evangelium*, Bergen.
- Helgøy, Eirik N 2010, *Den haugianske etikk og kapitalismens ånd: En studie av haugianismens etikk for moderne virksomheter*, NHH, Bergen.
- Hodne, Fritz 1981, *Norsk økonomisk historie 1815-1970*, Cappelen, Oslo.
- Hodne, Fritz & Ola Honningdal Grytten 2000, *Norsk økonomi i det 19 århundre*, Fagbokforlaget, Bergen.
- Hodne, Fritz og Ola Honningdal Grytten 2002, *Norsk økonomi i det 20 århundre*, Fagbokforlaget, Bergen.
- Iannacone, Laurence R 1998, “Introduction to the Economics of Religion”, *Journal of Economic Literature*, vol. 36, No 3, pp. 1465-1496.
- Jeremy, David J (ed) 1998, *Religion, Business and Wealth in Modern Britain*, Routledge, London.
- Jonassen, Christen 1947, "The Protestant Ethic and the Spirit of Capitalism in Norway." *American Sociological Review* (Dec. 1947).
- Klovland, Jan Tore 2004, “Historical exchange rate data 1819-2003”, Eitrheim, Øyvind, Jan Tore Klovland & Jan F. Qvigstad (eds), *Historical Monetary Statistics for Norway 1819-2003*, Norges Bank, Oslo.
- Kullerud, Dag 1996, *Hans Nielsen Hauge: Mannen som vekket Norge*, Forum Aschehoug, Oslo.
- Kvamen, Ingolf 1971-1976, *Brev frå Hans Nielsen Hauge*, 4 bd., Lutherstiftelsen, Oslo.
- Lerheim, Kristian 1952, *Devold Fabrikker Ålesund, Ålesund*.
- Lindstøl, Tallak 1914, *Stortinget og Statsraadet 1814-1914*, Kristiania,
- McCleary, Rachel M & Robert J Barro 2006, “Religion and Economy”, *Journal of Economic Perspectives*, vol 20, No 2, pp. 49-72.
- McCullough, Michael E & Brian L B Willoughby 2009, “Religion, Self-Regulation, Self-Control: Associations, Explanations, and Implications”, *Psychological Bulletin*,

No 1, Vol 135, pp. 65-91.

Møller, Arvid & Lasse Thorset 1974, *Jens fra Ekornes*, Luther Forlag.

Norborg, Sverre 1966, *Hans Nielsen Hauge: Biografi 1804-1824*, Cappelen, Oslo.

Norges Bank 2010, http://www.norges-bank.no/templates/article_42931.aspx

Øyvind, Jan Tore Klovland & Jan F. Qvigstad (eds) 2004, *Historical Monetary Statistics for Norway 1819-2003*, Norges Bank, Oslo.

Ravnåsen, Sigbjørn 2002, *Ånd og hånd, Hans Nielsen Huges etikk for ledelse og næringsliv*, Luther forlag, Oslo.

Rødal, Vegard Tafjord & Andreas Kiplesund, *Hans Nielsen Hauge: Entrepreneur, Banker and Industrialist*, NHH, Bergen 2009.

Schumpeter, Joseph 1939, *Business Cycles: A theoretical, historical and statistical analysis of the Capitalist process*, McGraw-Hill, New York.

Sejersted, Francis 1993, *Demokratisk kapitalisme*, Universitetsforlaget, Oslo.

Shaw, Joseph M 1955, *Pulpit Under the Sky: a Life of Hans Nielsen Hauge*, Augsburg Publishing House, Minneapolis.

Sjursen, Finn Wiig 1997, *Artikler om Hans Nielsen Hauge, haugianismen og bevegelsens betydning for kultur og opplysningsarbeid*, NLA-forlaget, Bergen.

Smith, Russel 2010, "Puritanism in Early American History", <http://www.helium.com/items/488403-puritanism-in-early-american-history>.

Statistics Norway 2010, <http://www.ssb.no/emner/08/02/10/kpi/tab-2010-02-10-01.html>

Sulebust, Jarle 1999, "Opplysningsmannen Sivert Aarflot", *Gavlen nr. 1/1999*.

Tawney, Robert H. 1926, *Religion and the Rise of Capitalism*. Peter Smith, Gloucester, MA (reprint 1962).

Vea, Jan 2009, *To kulturer*, Høyskoleforlaget, Kristiansand.

Weber, Max 1905, *Die protestantische Ethik und der Geist des Kapitalismus*, Berlin.

Weber, Max 1930, *The Protestant Ethic and the Spirit of Capitalism*, Charles Scribner's Sons, New York (reprint 1958).

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