

18th Century Trade on the Stroudwater Navigation

Historical Background

Transport in the Stroud Valleys

Before the coming of the Stroudwater Navigation all goods imported into the Stroud Valleys had to be brought by pack-horse or horse-drawn cart. The nearest source of coal was in the Bristol Coal fields at Kingswood, from where pack-horse trains took sacks of coal over the Cotswolds to Tetbury, Nailsworth, Cirencester and Minchinhampton.

The bulk of coal for the Stroud Valleys was delivered along the Severn to Framilode Passage, next to Framilode Church, from which they were transported along the Stroud Turnpike Road, created in 1726, which ran through Saul, past Whitminster House to Whitminster Cross, where it crossed the Gloucester to Stone/Bristol turnpike, and then down to Chippenham's Platt to the junction with the road to Eastington, before going through Stonehouse Cross, and Ebley to Cainscross, where it turned up the hill to Paganhill before continuing westward to meet the Painswick Turnpike near what is now Stratford Park before turning back downhill to Stroud.

NB The turnpike from Dudbridge to Nailsworth by the mills in the valley bottom was not started until after the Stroudwater Navigation opened in 1779 and was not completed until 1781. Before this date the roads to both Cirencester and Bath crossed the River Frome at Dudbridge and then went up to Rodborough Common and through Minchinhampton. The roads above Stroud were not turnpiked until the 19th century.

Sources of materials

The majority of the coal in the early years came down the Severn from Coalbrookdale, where it had been mined since the 13th century by the monks of Buildwas Abbey, and later by landowners around Broseley, Madeley and Coalport. In 1772 a towpath had been built along the Severn from Coalbrookdale to Bewdley to overcome the problems caused by lack of water in the summer months, but as there was a charge of 12 shillings (60p) for each horse using the towpath it was only used for important cargoes, and because the towpath was not maintained by 1799 a new Act appointed fresh undertakers for the towpath.

NB The mines on the upper part of the Shropshire coalfield that were to be connected to the Severn via the Hay Incline near the Blist Hill Iron Works, which was not opened until 1792, do not seem to have supplied coal for Stroud.

The Staffordshire and Worcestershire Canal was connected to the Severn at Stourport in 1768 and fully opened in 1772, when it was connected to the Birmingham Canal Navigations at Aldersley below the 20 lock flight at Wolverhampton. This allowed Staffordshire coal mined near the BCN to be brought down to Stourport for transhipment onto trows. The Staffordshire and Worcestershire canal was also connected to the Trent and Mersey Canal, which was finally opened through Harecastle Tunnel in 1777, though there is little evidence of goods travelling to or from the north to the Stroudwater Navigation.

While coal was also available in the nearby Forest of Dean it was not easily accessible to the west of the Severn as there were no ports along the Severn at this time, except at Newnham. Coal could be loaded

into small boats at various pills along the river at low tide, and a small 1.5 mile canal along the River Lyd at Lydney connected the iron works of Messrs Pidock and Homfray with the Severn.

Coal could also be obtained from the Pembrokeshire coalfields, for example by beaching a boat at Saundersfoot for loading of Tenby Coal, but this required the use of sea-going trows that were too deeply keeled for use on the Stroudwater Navigation. In the 1790s the Thames and Severn Canal Company experimented with a set of sea-going vessels, built at The Bourne shipyard, designed to bring coal that had been carried down the newly opened Monmouthshire Canal from Newport up to Brimscombe Port. It is likely that the cargoes recorded as Smiths Coal also came from the bituminous beds in the South Wales coalfield.

Salt was easily obtainable through Droitwich Barge Canal, which opened in 1771, though boats on this canal only had a limited capacity so 40 tons was normally the maximum that could come down at one time.

Once the Thames and Severn Canal opened through to the Thames, and the early water supply problems over the summit were overcome by the use of a steam driven pump, it became possible to pass goods on to London from the Severn. Though by this time the Oxford Canal had been opened linking the coalfields along the Coventry Canal with the Thames and London, and via the Birmingham and Fazeley Canal with the Birmingham Canal Navigations, the Stroud Valleys route remained useful for getting iron, tin and copper from the Forest of Dean, the Welsh valleys and Coalbrookdale to London, and for the transport of guns from Coalbrookdale and Birmingham.

The early years (1777-1779)

The first chargeable cargo of coal was landed at Bristol Road Wharf on the 12 December 1776, and by the end of the year 399 tons of coal had been landed at the wharf. During 1777 a further 9550 tons of cargo, mostly coal, was landed at Bristol Road. The first outgoing cargo was 13 tons of cheese loaded in April, but only another 73 tons of goods are recorded as going downstream from Bristol Road.

The majority of the coal in 1777 (7035 tons) came down the Severn from the Shropshire fields around Ironbridge. 639 tons of Staffordshire coal came down the Staffordshire and Worcestershire Canal to Stourport and then down the Severn. Only 167 tons came across the river from the Forest of Dean, while 284 tons came up the Bristol Channel from Tenby. For 1249 tons of coal no source was recorded.

What happened to the coal? Bristol Road Wharf is 3 miles from Stonehouse, 6 miles from Stroud, 9 miles from Nailsworth and 10 miles from Chalford. A letter from James Bough in 1777 gives the cost of moving a waggon of coal from Bristol Road to Stroud as 10 shillings. If the average load for a waggon was 2-3 tons, some 3-4000 loads would have needed to travel along the Stroud Turnpike or along the north-south Gloucester-Stone Turnpike.

In November 1777 the committee ordered that "an acre of Mr Stephens's land next to West Field be measured and enclosed for the Coal Wharf". The location, between Westfield Lock and Dock Lock, was referred to at the time as Chippenhams Platt. Joseph Grazebrook was granted "leave to Build a Temporary Warehouse on the waste Land at Chippenhams Platt he finding all the Materials and Building at his own expence." He was charged £3 for rent up to Xmas 1779. A load of lead and timber was recorded as being landed at the site on 1st January 1778, but the first load of 44 tons of coal only arrived

on 14th January, with regular shipments starting from the 26th January. A total of 4851 tons of goods were taken to Chippenhams Platt against 3492 to Bristol Road during 1778.

Again most of the trade was in coal, with 5986 tons of Shropshire coal, 1535 tons of Staffordshire coal. 308 ton of Tenby coal, 227 tons of Forest of Dean coal, 190 tons of Darby and 14 tons of Bristol coal. Only 155 tons of other goods were received. The only outbound trade was 2 tons of Shropshire coal sent to Bristol.

During 1777 a single charge of one shilling (5p) a ton was made for all cargoes to Bristol Road. Goods to Chippenhams Platt were charged at 1s 6d (7.5p) a ton, 50% more than to Bristol Road. But by March this differential was eroded as the toll to Bristol Road was raised to 1s 3d. By January 1779 the canal was open to Ryeford, where a charge of 2s per ton (raised to 2s 2d in April) was enough to make transport there competitive. After July the canal was fully opened with charges for coal of 2s 11d per ton for Dudbridge and 3s to Stroud, though higher prices were charged for other cargoes, such as wool and salt (up to 3s 8d to Dudbridge or 4s to Stroud).

In the first half of 1779 Ryeford received 3212 tons of cargo, but only 50 tons after the opening of the upper pounds. In the second half of the year Dudbridge received 885 tons and Stroud 1254. Lower down the canal Bristol Road still received 353 tons, Chippenhams Platt 83 tons, Whitminster 56 and Stonehouse 15. Above Ryeford cargoes also went to Oil Mill, Ebley and Lodgemore. Only 50 tons of goods travelled down the canal.

Income from tolls was £507 in 1776-7, £580 in 1778 and £713 in 1779.

The first decade – trade on the Stroudwater Navigation from 1780-1789

Figure 1 shows the types of cargoes imported into the Stroudwater Navigation before the opening of the Thames and Severn Canal. It illustrates how the trade in Shropshire coal declined over the first decade, to be replaced by Staffordshire coal brought down the river from Stourport, which was much less affected by shortages of water in the river.

During the first full decade of business a total of 54,804 tons of Shropshire Coal, 45,168 of Staffordshire Coal, 3,479 of Forest Coal and 2,865 of Tenby Coal were imported up the canal. 5,920 tons of Stone was transported, much of it down the canal to Gloucester for use in building the new Gloucester Prison. A total of 2,935 tons of Salt were imported, mostly consigned to Mr Clutterbuck at Dudbridge and Mr Freebury in Stroud. Bricks (934 tons), timber (804 tons) and wheat (690 tons) were the other major components of the 128,000 tons imported and 7,825 tons exported along the canal during this decade. Perhaps the most surprising export, though, was the 739 tons of Gun Stocks sent up the Severn during this decade to help replenish the army following the American War of Independence.

For stone during the period of 1786-1788 much of the trade was outgoing, from Chalford, The Bourne and Brimscombe on the Thames and Severn Canal to Gloucester Prison. For other years it was mostly incoming road stone being delivered to Bristol Road for repair of the turnpikes.

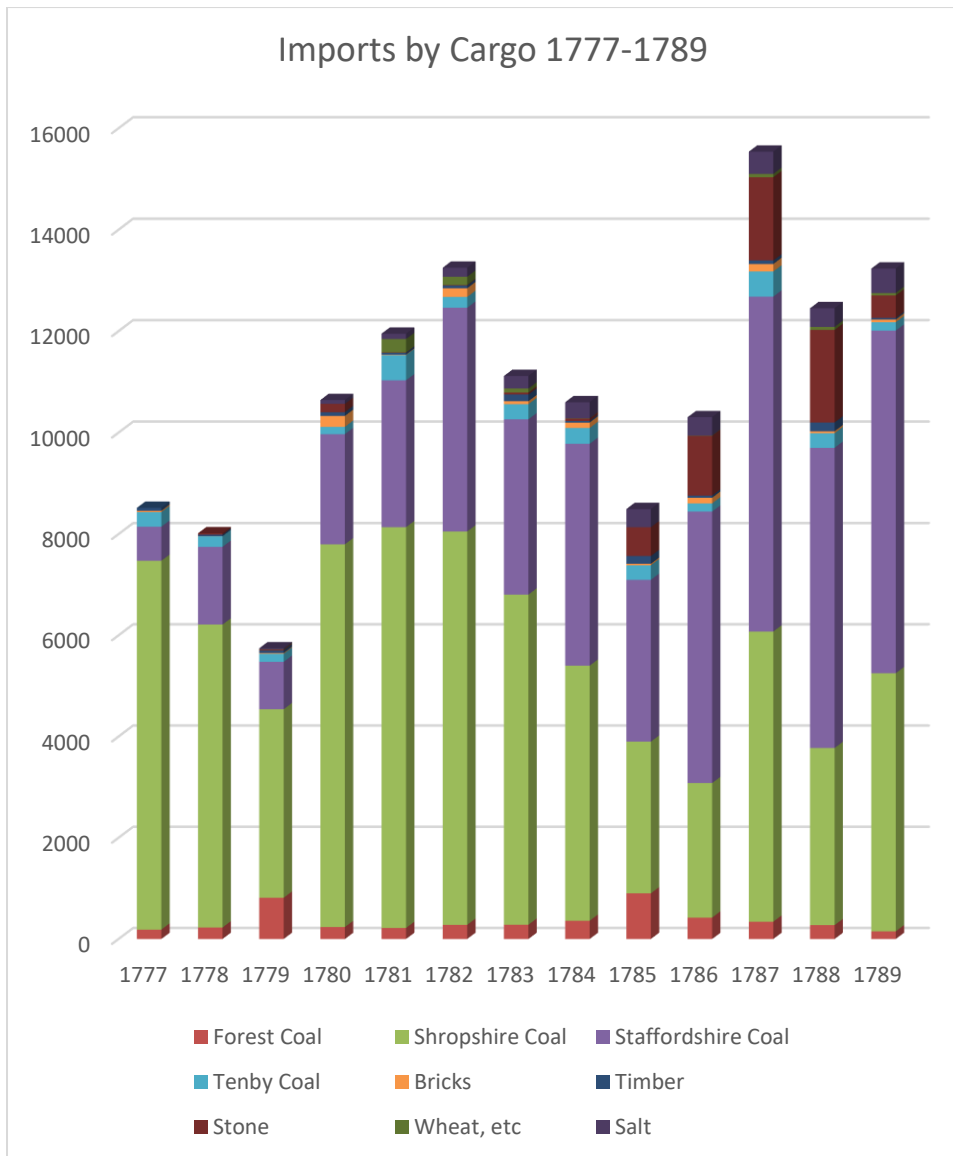


Figure 1: Cargoes on the Stroudwater Navigation 1777-1789

Figure 2 shows the places cargoes were sent to. Once the lower reaches of Thames and Severn Canal were opened in 1785 increasing amounts of trade went to Bowbridge, Brimscombe and Chalford.

When new rates were set, in October 1779, a drawback of 1s per ton was allowed on coals carried to Cirencester, Tetbury or Lechlade while goods carried down the Severn to Stroud or exported up the Severn from Stroud were given preferential rates. Preferential rates were also applied to certain mill owners. From 1782 a special rate of 1s per ton was applied to goods, such as cannons, brought to Stroud for onward transmission to London via Lechlade. Figures shown for delivery beyond Chalford are based on the drawbacks paid for goods sent eastwards.

The warehouse at Wallbridge was let to William Wakefield in March 1780, and the wharfs at Wallbridge and Dudbridge were fenced in. Grazebrook & Co had their warehouse at Dudbridge. Agreement for the land needed for a wharf at Stonehouse Cross was not reached until 1785, when the wharf at Wallbridge was walled in. Other cargoes were landed on the canal towpath or adjacent premises.

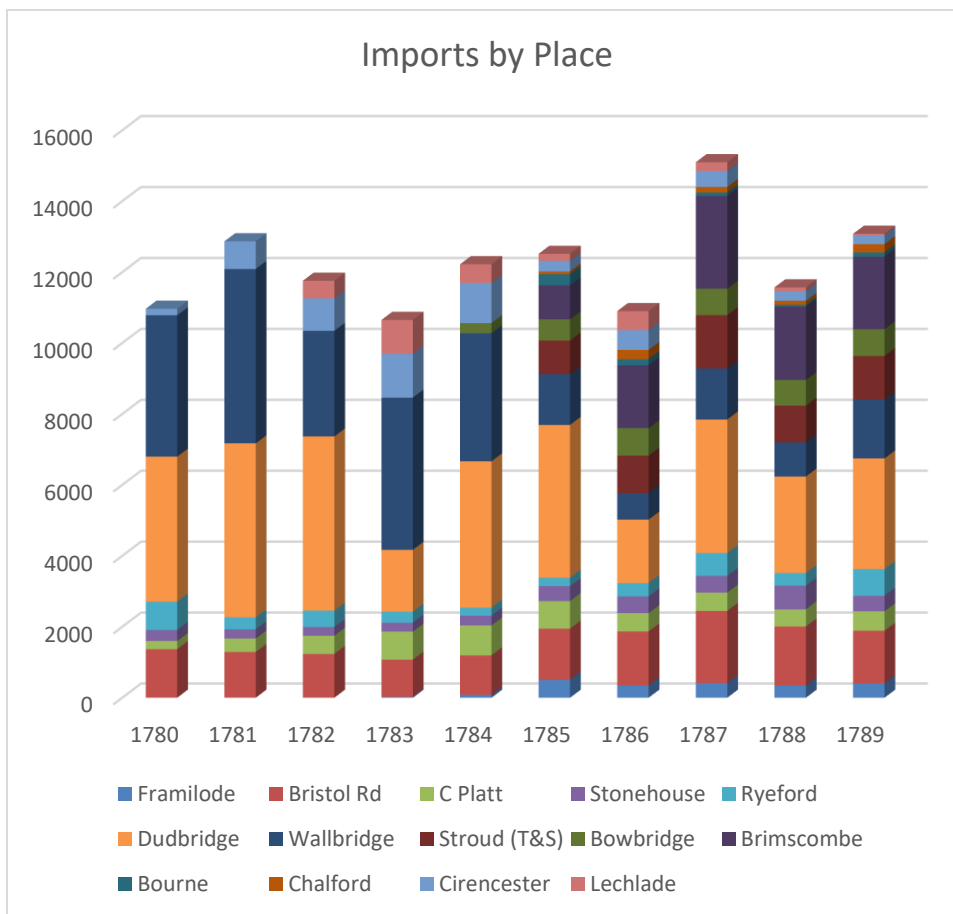


Figure 2: Imports to places on the Stroudwater Navigation 1780-1789

During the 1780s 35,400 tons were delivered to Dudbridge, 26,000 to Wallbridge, 14,200 was distributed from Bristol Road, 5,600 from Chippenhams Platt, and 4,500 from Ryeford. Only 3,800 tons were unloaded at Stonehouse, while another 2,100 tons was unloaded at Framilode. Over 6,000 tons was awarded a drawback for being delivered more than 10 miles from Dudbridge and Wallbridge, while 3,000 tons made it as far as Lechlade. Within the Stroud Valleys served by the Thames and Severn Canal 5,770 tons was unloaded at the wharf above the Wallbridge Lock in the centre of Stroud, 3,880 tons were unloaded at Bowbridge, 9,450 at Brimscombe, 750 tons at The Bourne and 840 tons at Chalford.

Until 1785 one of the main traders of coal in the Stroud area were Grazebrook & Co, but in January 1786 this trade started to be recorded as being to “The Coal Company”. In 1788 the Annual General Meetings of the Stroudwater Navigation set aside £500 from the profits of the canal for the purchase of coal to be sold by the company. In 1789 a further £500 was authorised for creating a new supply depot on Dudbridge Wharf. In 1793 a barge was purchased by the company for bringing coals to the different wharves of the navigation.

In 1787 concern was expressed that coal that was supposed to be for the use of the Thames and Severn Canal was being sold by that company at Brimscombe. As the T&S Canal Company only paid the Stroudwater Navigation 1 shilling (5p) a ton for coal they took up to Brimscombe, while the Coal Company was charged 3s 4d (17p) for coal delivered to Dudbridge, and 3s 6d (17½p) for coal delivered to

Wallbridge, it was possible that the Thames & Severn Company could supply coal to places from Stroud eastwards at a lower rate than the Stroudwater's own Coal Company .

Throughout the decade the main consignees for salt were Mr Clutterbuck at Dudbridge and Mr Freebury in Stroud. Most of this was delivered by Thomas Farley and members of the Corbett and Pugh families. Until 1785 salt was charged at a lower rate than coal, but once Thomas Farley ceased trading the full price of 3s 4d and 3s 6d was charged for salt delivered to Dudbridge and Wallbridge. Salt to Brimscombe was only charged at 4d a ton on the Stroudwater Navigation. After 1789 Freebury started having his salt delivered to the Stroud wharf of the Thames & Severn Canal rather than to Wallbridge, which meant the Stroudwater Navigation only received 2s 3d per ton for its transit, while the Thames and Severn Canal Company received 13d for using just a few yards of their canal.

Thomas Cullis brought some 8500 tons of Shropshire Coal from Coalbrookdale over the decade. Various members of the Oakes family also brought almost 8000 tons of Shropshire Coal while Richard Tolley carried some 6000 tons of Staffordshire Coal and John Longney carried over 2000 tons of Forest Coal. Richard and Thomas Davis brought some 600 tons of Road Stone to Bristol Road and Chippenhams Platt, while Joseph Corbett carried over 2500 tons of Stone from the upper Stroud Valley for the building of Gloucester Prison.

Thomas Cullis normally brought two boatloads on each trip, carrying 90-100 tons of coal. He made one or two trips a month over the winter months, but often missed travelling in May, when the canal was normally closed for repairs. There seem to have been problems on some trips. In March 1788 only one boatload made it to Dudbridge, but then in April three boatloads were delivered. Did one of the March boats run into trouble on the way down? Bricks were another cargo that often accompanied the coal, and between December 1785 and May 1786 cargoes of hay were frequently taken back up the river. The most trips a month occurred in September 1783, when bricks and coal were delivered on five different dates, but only from one boat a time; perhaps the river was low that month. In 1781 only a single boatload was delivered between May and November.

Quantities of other cargoes are summarized in [Appendix A](#).

By the end of 1789 the Company of Proprietors of the Stroudwater Navigation had taken £18,350 in tolls. By 1783 most of the loans had been paid off that had been taken out to augment the amount raised from the sale of the 200 original subscriptions. In 1789 dividends of £7.50 per share (5%) were paid on each share.

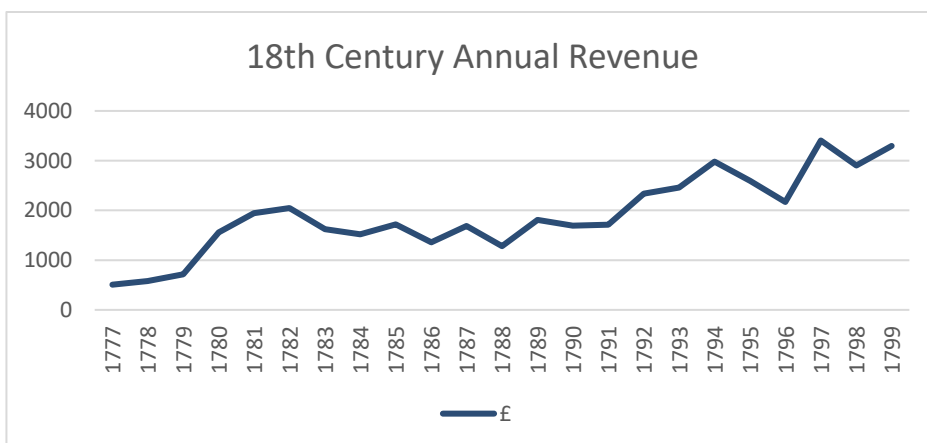


Figure 3: Annual Revenue

The second decade – trade along the Stroud Valleys from 1790-1799

Once the Sapperton Tunnel was opened in 1789 through traffic to Cirencester and Lechlade became possible. As the two canals had different lock sizes, most of the goods for destinations beyond Chalford were transhipped in the Brimscombe Port basin. But until the Thames & Severn Canal built a windmill to pump water into the top level of their canal in 1790 there was insufficient water in the top level of the canal during the summer. In 1792 the supply at the summit was augmented by a Boulton & Watt beam engine.

Another factor in the increase in trade over the two canals later in the decade was the vast increase in the Royal Navy during the period. As well as requiring copper, tin, iron and guns for the making and repairing of ships in London, the canals also benefitted from the decrease in coastal traffic caused by the navies of both France and England. The Royal Navy was busy impressing any seamen they could to fill the 597 captured French vessels and corsairs of other nations as the navy increased from 303 vessels in 1794 to 942 in 1799. In May 1797 there was a further problem when mutineers at the Nore blockaded the mouth of the Thames. While plans by the Batavians and French to send fleets to invade Ireland in 1796 and 1797 were thwarted, their imminence made trade in the Channel hazardous during this period.

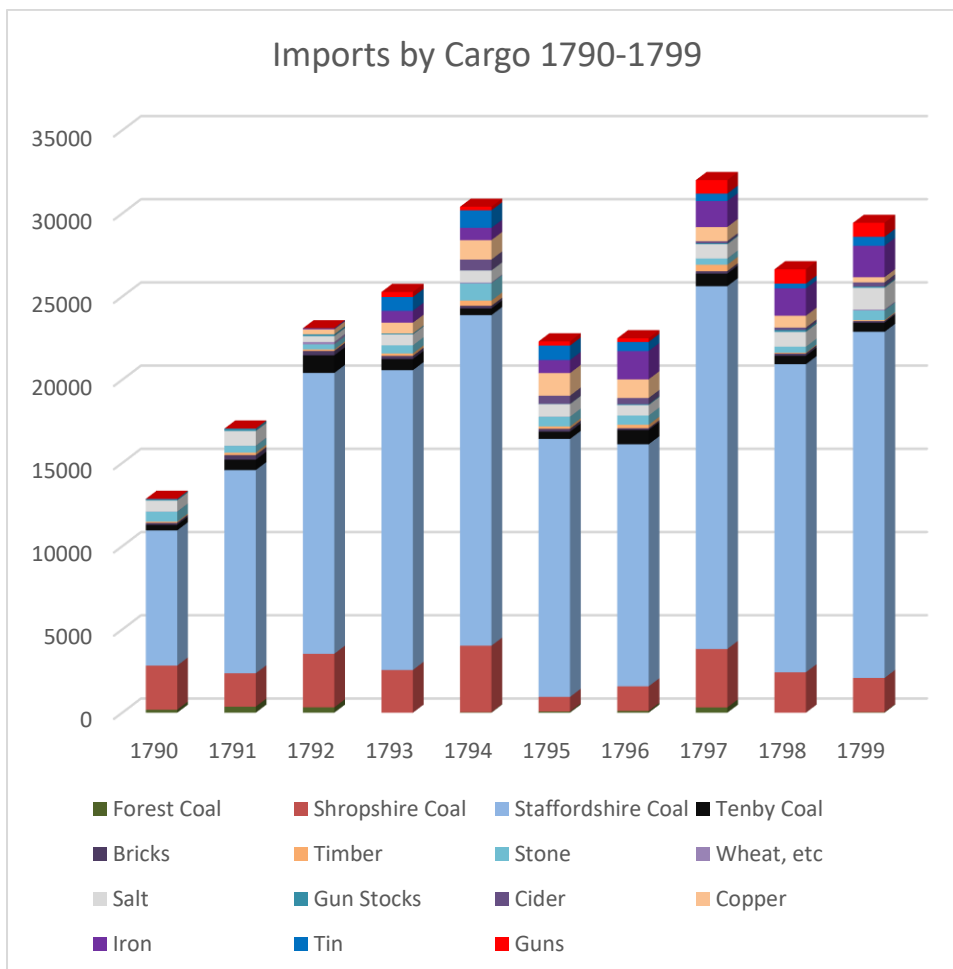


Figure 4: Cargoes on the Stroudwater Navigation 1790-1799

During the decade 166,200 tons of Staffordshire Coal were imported, but only 24,797 tons of Shropshire Coal, 6202 tons of Tenby Coal and a mere 1417 tons of Forest Coal were imported. There was more

Smiths Coal than Forest Coal, and a small amount of Newport Coal. 7700 tons of Salt was imported from Droitwich, and 5300 tons of stone was imported.

There were significant new cargoes in the form of Iron (9000 tons), Copper (6462 tons), Tin (4600 tons) and even Guns (3500 tons), much of it from South Wales and the River Wye. Another significant new cargo was Cider, for which over 2000 tons were sent to Brimscombe for eastwards transhipment.

As the overall tonnage increased the amount of detail recorded in the tonnage books decreased as more and more cargoes were treated as Sundry Goods, often sent to Sundry People at Sundry Places. In 1799 28% of cargoes were unspecified, 20% were not consigned to anyone, and 13% had no destination specified.

The 28,200 tons of goods exported westwards from the Stroudwater went to many places, including Bath, Bewdley, Bristol, Gloucester, Monmouth, Newnham, Redbrook, Upton-on-Severn, Worcester and, most often, to Stourport. The majority of the cargoes in the latter half of the decade originated in Brimscombe or places east.

Of the imports, twice as many went to destinations on the Thames and Severn Canal as to ones on the Stroudwater Navigation. A total of 147,950 tons had their destination specified as being Brimscombe Port from where they would be sent east. Needless to say the main consignee for the decade was William Hill at Brimscombe Port.

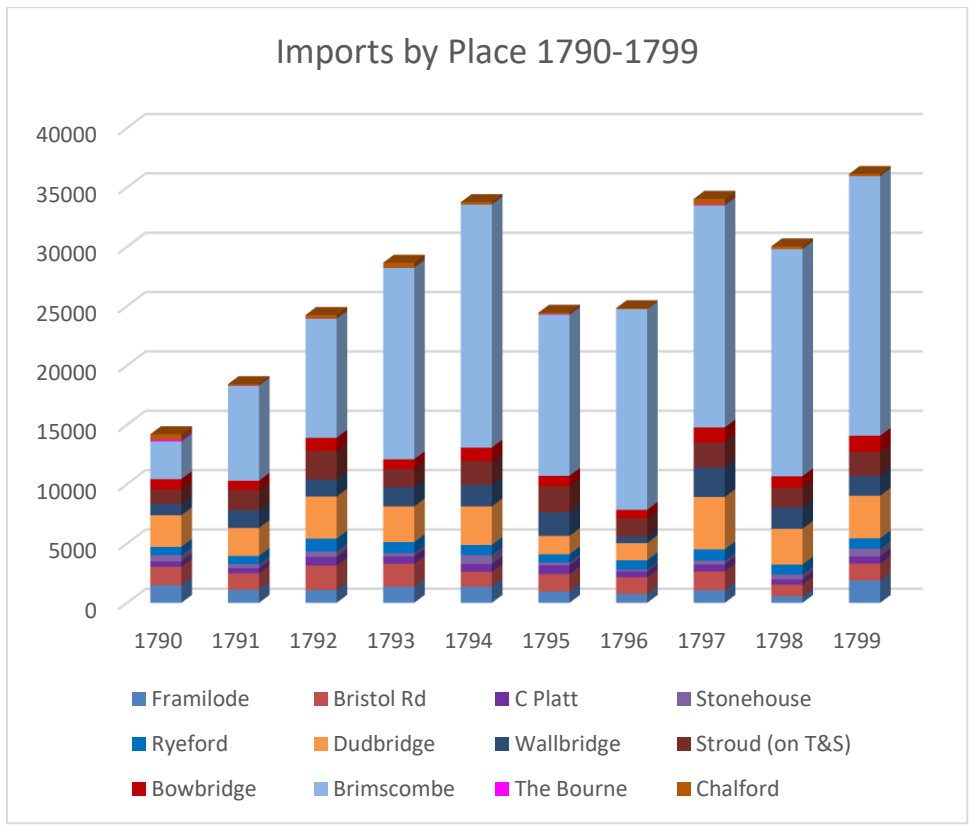


Figure 5: Imports to places on the Stroudwater Navigation 1790-1799

Benjamin Grazebrook's weekly packet boats to Gloucester and Bristol recorded over 500 cargoes, totalling over 15,000 tons of sundry goods, while Thomas Yates made up his 16,000 tons of sundries with occasional cargoes of Staffordshire Coal. Richard Tolley delivered most of his Staffordshire Coal to destinations on the Stroudwater Navigation itself (over 14,000 tons) while Charles and William Simmons carried almost 10,000 tons of Staffordshire Coal to destinations on both canals. Frank Yates mixed Shropshire Coal and Bricks with his deliveries of Staffordshire Coal (4880 tons) but most of these were for locations on the Thames and Severn Canal. Thomas Cullis continued to import his 4000 tons Shropshire Coal to locations on the Stroudwater canal. George Moore brought Tenby Coal, Copper and Slate from Wales (8300 tons) while John Gower mixed Smiths Coal, Newport Coal and Tenby Coal in the 6900 tons he imported from Wales. James Pride carried 5700 tons of small cargoes, often of less than 20 tons, including Sand, Stone, Bricks and Timber. Joseph Shetland specialized in importing Tin, possibly from the Redbrook tins works on the River Wye as many of his return trips were to Monmouth and Redbrook. Samuel Simmons carried some 1500 tons of Iron and Guns to Brimscombe from Stourport.

A total of £25,550 was taken in tolls and rents during the decade. Despite traffic almost trebling, the overall profit per year only doubled as the rates charged for traffic going into the Thames and Severn Canal was much lower than for goods delivered on the Stroudwater Navigation.

In 1799 the dividends paid to shareholders came to £13 per share, a return of over 8%, though the average return over the decade was just over 5%.

Appendix A

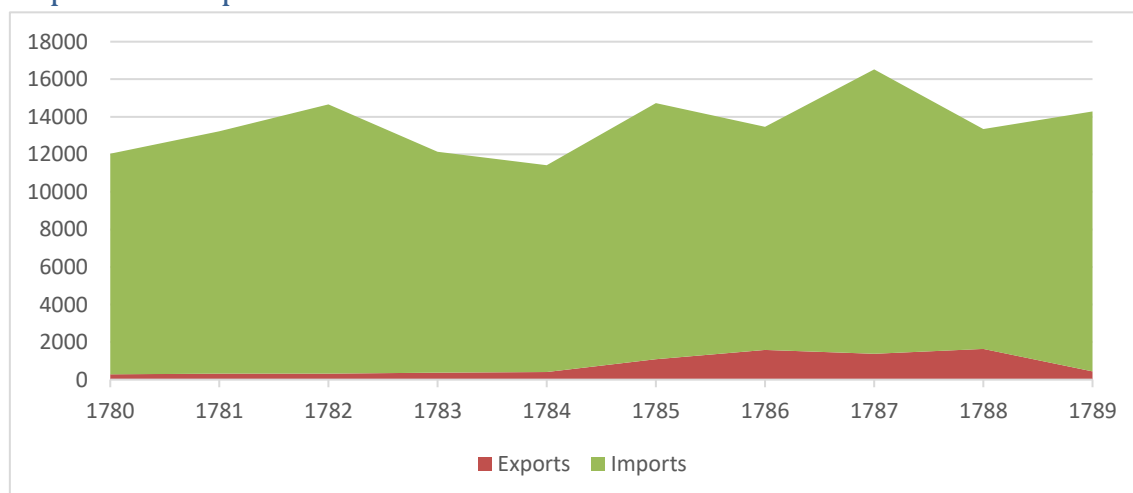
Tons of Main Cargoes 1780-1789

Year	Forest Coal	Shropshire Coal	Staffordshire Coal	Tenby Coal	Bricks	Timber	Stone	Wheat, etc	Salt	Gun Stocks
1780	236	7563	2172	144	214	75	164	0	75	
1781	218	7918	2895	497	10	36	7	264	106	
1782	280	7771	4412	213	171	55	8	164	178	
1783	281	6524	3458	299	58	132	38	81	247	171
1784	361	5041	4378	312	106	32	48	4	318	256
1785	904	2995	3198	287	29	154	569	0	358	69
1786	423	2658	5363	162	110	44	1177	5	363	109
1787	342	5733	6607	496	147	70	1640	65	439	50
1788	274	3500	5926	288	39	173	1825	59	369	42
1789	151	5101	6759	167	50	33	444	48	482	42

Tons delivered to Specified Places 1780-1789

Year	Framilode	Bristol Rd	Chipp Platt	Stonehouse	Ryeford	Dudbridge	Wallbridge	Stroud (on T&S)	Bowbridge	Brimscombe	The Bourne	Chalford
1777		9936										
1778		3492	4851									
1779		353	83	15	3268	885	1253					
1780		1367	234	308	800	4089	3986					
1781		1290	380	261	336	4906	4915					
1782		1234	514	247	461	4911	2979					
1783	21	1054	789	250	312	1745	4291					
1784	80	1113	844	274	229	4126	3611		285			
1785	507	1439	779	422	238	4307	1431	949	597	958	312	78
1786	344	1525	518	470	376	1791	751	1050	778	1772	168	265
1787	416	2030	520	470	642	3767	1438	1506	743	2615	100	154
1788	342	1665	486	667	357	2721	960	1039	723	2067	57	109
1789	406	1483	547	439	754	3119	1657	1231	755	2047	116	236

Import and Export 1780-1789



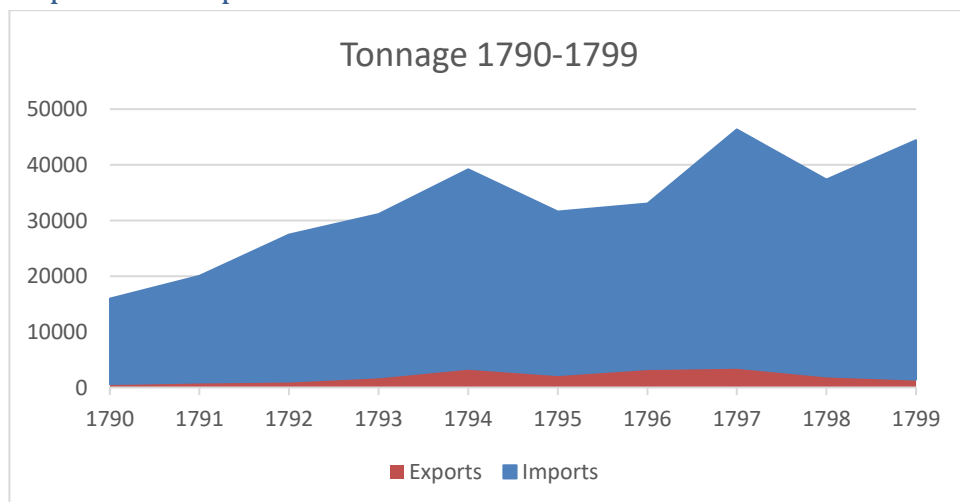
Tons of Main Cargoes 1790-1799

Year	Forest Coal	Shropshire Coal	Staffordshire Coal	Tenby Coal	Salt	Cider	Copper	Iron	Tin	Guns
1790	180	2650	8124	335	664	9	0	2	0	0
1791	364	2006	12203	625	882	0	0	2	1	0
1792	323	3218	16871	1057	354	0	294	49	20	0
1793	0	2568	18010	667	654	0	650	718	831	300
1794	27	4000	19862	402	726	651	1169	739	1054	215
1795	72	876	15496	438	751	493	1357	786	870	253
1796	106	1480	14535	863	627	374	1118	1701	548	222
1797	316	3510	21803	754	857	124	849	1564	450	811
1798	0	2429	18509	507	890	140	715	1642	291	861
1799	29	2060	20794	554	1312	254	310	1890	538	842

Tons delivered to Specified Places 1790-1799

Year	Fram-ilode	Bristol Rd	Chipp Platt	Stone-house	Rye-ford	Dud-bridge	Wall-bridge	Stroud (on T&S)	Bow-bridge	Brims-combe	The Bourne	Chal-ford
1791	1100	1393	414	354	685	2369	1475	1718	783	7989	23	114
1792	1082	2057	731	476	1061	3544	1425	2430	1097	10033	3	306
1793	1362	1935	627	255	938	3010	1610	1522	835	16122	0	428
1794	1372	1243	653	761	844	3253	1798	2012	1141	20477	0	197
1795	959	1464	726	243	693	1555	1975	2196	889	13571	33	136
1796	748	1409	500	155	772	1449	548	1559	696	16901	0	88
1797	1064	1586	576	341	932	4423	2472	2121	1261	18693	53	512
1798	1891	1410	622	638	868	3600	1648	2044	1358	21861	1	182
1799	1891	1410	622	638	868	3600	1648	2044	1358	21861	1	182

Import and Export 1790-1799



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