

NEW ENGLAND BUSINESS REVIEW

DECEMBER
1967

The Outlook for Financial Disintermediation

Savers move their funds from one financial institution to another or directly to securities markets when interest rate differences appear. If interest rates continue to rise in 1968, commercial banks, thrift institutions, and insurance companies will lose funds. The shift of funds among them, however, will probably be less intense than in past periods of high interest rates.

The Economic Impact of Meatless Fridays

The end of meatless Fridays has resulted in a loss to the New England fishing industry — at least in the short run. The long-run impact remains uncertain.

The Outlook for Financial Disintermediation

by John J. Arena

IN SPITE of record interest rates today, financial observers foresee the prospect of even higher rates and a possible return to disintermediation and other difficulties in credit markets. This prospect raises questions of how money and capital markets work under conditions of restraint and whether the response of the financial markets will remain the same as in the past, if the market tightens further.

These possible developments raise the following questions which this article attempts to answer:

1. What is meant by disintermediation?
2. What were past examples and how have the characteristics of disintermediation varied?
3. What can be expected in the future if interest rates continue to rise and if the credit supply becomes less generous?

Disintermediation

When savers put their funds into a bank or thrift institution, those institutions in turn lend the funds to other individuals or businesses. These financial institutions are thus intermediaries between lenders and borrowers, and the process might be called intermediation. Disintermediation, *strictly defined*, is a reversal of intermediation or the withdrawal of savings previously put into financial institutions and

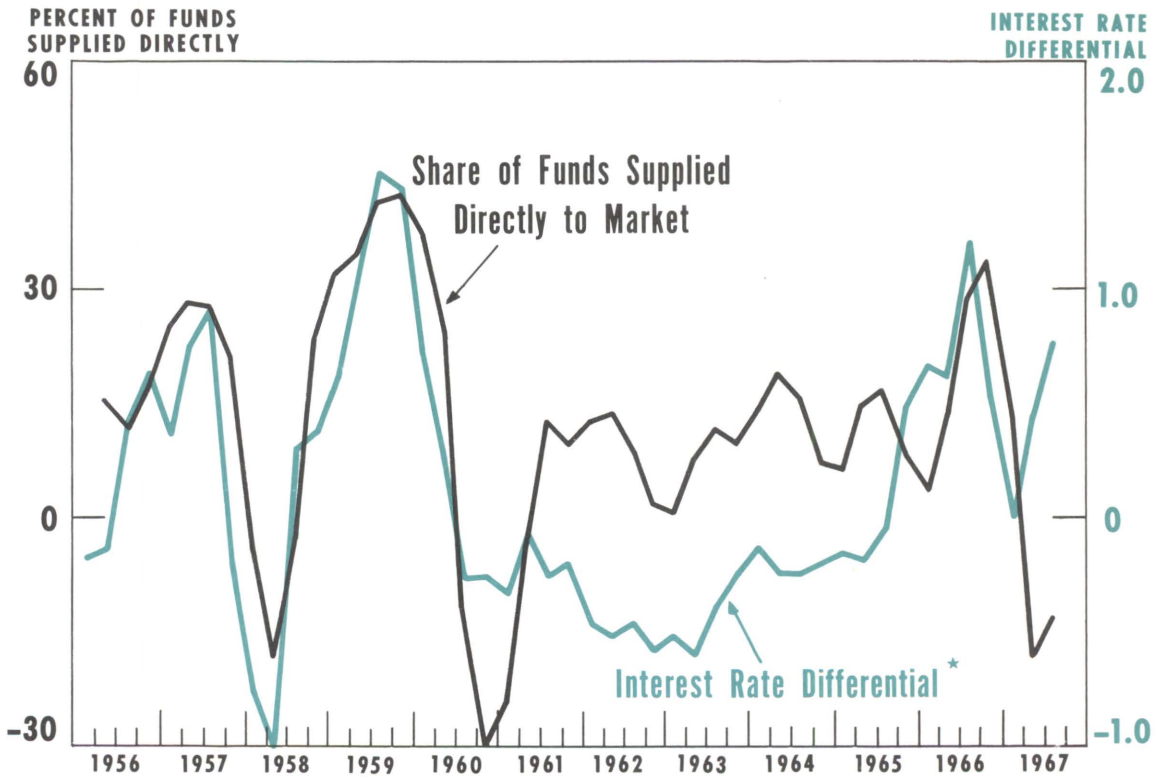
their direct placement into the securities market. But in common usage disintermediation has been broadened to include the withdrawal of funds from one type of institution, such as a savings and loan association (S & L) or a savings bank, and their redeposit into another institution, such as a commercial bank, paying a higher rate.

Disintermediation has a variety of impacts on the allocation of funds and ultimately on spending flows in our economy. A movement of funds from institutions that concentrate their investments in residential mortgages (such as savings banks and S & L's) to those that emphasize business loans (such as commercial banks) slows down the housing sector of the economy and gives impetus to business investment in inventories, plant, and equipment. Similarly a shift of funds from insurance companies, which buy a large share of new corporate bonds, to the U. S. Government securities market adversely affects business spending, while allowing Federal expenditures to be more easily financed.

These deposit withdrawals and other shifts in savings flows, or disintermediation, occur mainly because interest rates on securities rise more than those offered by financial institutions on savings and other time deposit accounts. As a result, differentials or spreads appear. The higher the yield of market securities relative to that of financial institutions, the greater is the share of funds put directly into the market.

The New England Business Review is produced in the Research Department. The authors will be glad to receive comments on their articles.

INTEREST RATE DIFFERENTIAL



* DIFFERENTIAL BETWEEN THE RATE FOR 3 TO 5 YEAR U.S. GOVERNMENT SECURITIES AND THE RATE PAID ON SAVINGS DEPOSITS BY A SAMPLE OF BOSTON BANKS.

As a measure of financial disintermediation (strictly defined), Chart I shows the quantitative share of total funds supplied directly to the market. Also plotted on Chart I is the difference between the yield of a 3-5 year U. S. Government security and the average rate paid by a sample of financial institutions. The charts shows — and a statistical correlation of +0.7 confirms — that the greater the yield of market securities relative to that of the financial institutions, the greater is the degree of financial disintermediation.

The Experiences of 1959 and 1966 Compared

Financial disintermediation is not a new development, although the term was coined specifically to describe the 1966 experience. However, the disintermediation was as sharp, if not sharper, in 1959 as in 1966.

An analysis of these two experiences should shed light on the possibility of future disintermediation.

The years 1959 and 1966 differed in four key respects:

1) The flows among the financial institutions in 1959 differed markedly from the pattern in 1966, although all institutions lost funds to the market.

2) Interest rates were higher in 1966 than in 1959 (as seen in Chart II) but the relative differential between the market rate and financial institutions' rate was actually slightly lower in 1966.

3) Financial institutions were in a less liquid position at the outset of the disintermediation in 1966 than in 1959, and thus were more sensitive to losses of deposits in 1966. Loan deposit ratios were higher, and liquid asset holdings were relatively smaller.

A technical supplement to this article, "Financial Disintermediation, A Study of New England Commercial and Savings Banks, 1956-1967," will be available shortly on request to the Research Department of this Bank.

4) Homebuilding was dealt a much sharper blow in 1966, when starts fell by 36 percent from 1.4 million units to 0.9 million units. In 1959 they only fell 19 percent from 1.6 million units to 1.3 million units.

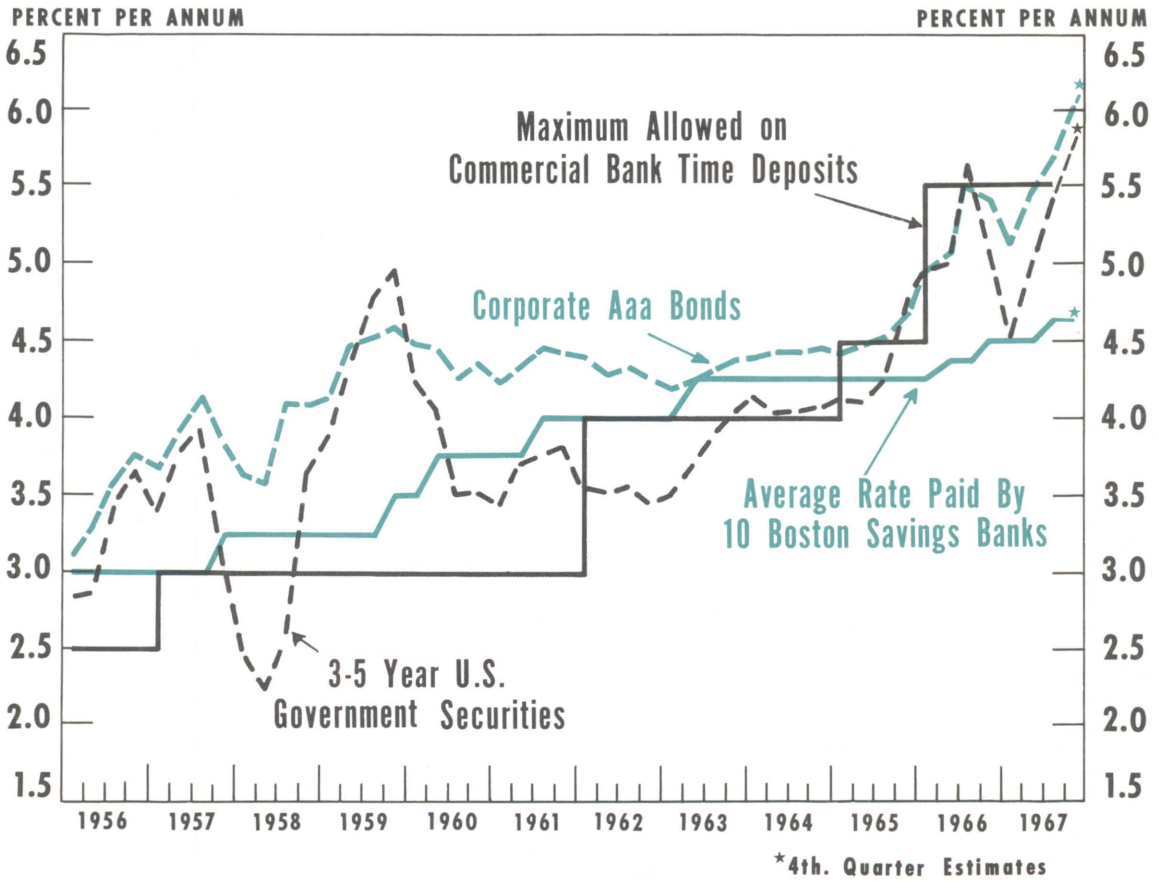
The detailed history of the two experiences follows and Table I presents both annual and quarterly deposit flows for the three major types of financial institutions — commercial banks, savings and loan associations, and savings banks.¹

In 1959 the S & L's maintained their deposit growth, accumulating \$6.6 billion in deposits or shares. They achieved this growth by raising their dividend rates sharply over the year.

In 1966, however, deposit growth at S & L's dropped precipitously to \$3.6 billion from \$8.4 billion in 1965. On a quarterly basis, the decline was even sharper. S & L's were not able this time to compete with higher external interest rates. The S & L's would have had to increase their interest rates significantly in order to reduce withdrawals, but they were unable to do so because their earnings were not sufficient to cover higher payouts. If S & L's adopt higher interest rates, they are of course required to pay the new rates on all similar deposit shares, but their earnings increase only on new loans. S & L's are particularly sensitive to this cost pinch, since their

¹Although insurance companies were excluded from this study, their funds, particularly for policy loans and mortgage prepayments, were found in a separate study to be equally sensitive to interest rate differentials.

INTEREST RATES



average asset maturity is much longer than that of commercial banks.

The deposit growth pattern in commercial banks during these two episodes was almost the reverse of that in S & L's. In 1959, time deposit growth in commercial banks fell to only \$1 billion from \$8 billion in 1958. In the third quarter they actually lost time deposits. Unlike the S & L's, commercial banks could not compete aggressively for funds. Under Federal Reserve regulations the maximum rate commercial banks were allowed to pay was set at 3 percent in 1957 and remained unchanged until 1962, as shown in Chart II. Since most of the deposits were in banks paying the ceiling rate in 1959, they could not meet the competition of rising external rates, and hence their share of deposit growth fell.

In 1966 this was not the case. In December 1965, the Federal Reserve Board had raised the maximum rate payable on time deposits from 4½ to 5½ percent. Consequently, most banks started 1966 well below the permissible limit. As rates rose, commercial banks raised the interest on time deposits. Hence in the first half of 1966, commercial banks managed to retain their growth in time deposits and thereby to increase their share of the total which had been slackening off, as the quarterly flows in Table 1 show.

By midsummer, however, commercial banks were up against the 5½ percent ceiling on large negotiable CD's while market rates continued to rise. As a result, commercial banks also began to lose their competitive edge and their time deposit growth fell to only a \$5.8 billion rate in the fourth quarter compared with a \$20.9 billion rate two quarters earlier. In general, though, the role of aggressive com-

**MAXIMUM RATES ON
TIME AND SAVINGS ACCOUNTS**

Currently commercial banks, savings banks, and savings and loan associations are restricted as to the amount of interest they can pay on time and savings accounts. A partial list of the maximum rates that each can pay are as follows (annual rates):

FDIC insured commercial banks		
Savings deposits		4%
Time deposits with fixed maturities:		
Under \$100,000		5%
Over \$100,000		5.50%
FDIC insured savings banks (all accounts)		5%
FSLIC insured savings and loan associations		
	<i>Passbook accounts</i>	<i>Fixed maturity certificates</i>
Lower rate areas	4.75%	5.25%
Higher rate areas	5.00%	5.00%
Alaska, California and Nevada	5.25%	5.25%

petitors for time deposit growth was reversed from the S & L's in 1959 to commercial banks in 1966.

Savings banks' deposit growth dropped in both the 1959 and 1966 experiences, especially in the quarterly data. In both periods savings banks did not increase interest rates sufficiently to meet the competition from other institutions and from the market. Like the S & L's, they were faced with a sharp squeeze on their marginal earnings and payouts, but they chose to follow a less aggressive course than the S & L's.

While competitive positions among the financial institutions were different in 1966 from those in 1959, the key point is that, in total, these institutions suffered in both years. Total savings and time deposit growth fell from the preceding year by \$7.6 billion in 1959 and \$12.6 billion in 1966.

Table I
GROWTH OF SAVINGS AND TIME ACCOUNTS
1966 Period Compared with 1959
 (billions of dollars at annual rates)

1959 EXPERIENCE
1958-60

	<i>Annual Data</i>			<i>Quarterly Data</i>											
				1958				1959				1960			
	1958	1959	1960	I	II	III	IV	I	II	III	IV	I	II	III	IV
1. Savings & Loan Assoc.	6.1	6.6	7.6	6.1	5.8	6.2	6.2	6.4	7.0	7.0	6.1	7.0	7.3	8.0	7.9
2. Savings Banks	2.3	1.2	1.4	2.5	2.4	2.3	2.1	1.7	1.6	1.2	0.5	0.7	1.1	1.8	1.8
3. Commercial Banks	8.0	1.0	5.8	13.1	10.4	4.3	4.2	1.4	2.2	-0.5	1.0	-1.9	4.9	10.4	9.7
4. Total	16.4	8.8	14.8	21.7	18.6	12.8	12.5	9.5	10.8	7.7	7.6	5.8	13.3	20.2	19.4

1966 EXPERIENCE
1964-67

	<i>Annual Data</i>			<i>Quarterly Data</i>											
				1965				1966				1967			
	1964	1965	1966	I	II	III	IV	I	II	III	IV	I	II	III	IV
1. Savings & Loan Assoc.	10.6	8.4	3.6	—	7.6	8.7	9.1	5.8	2.5	1.4	4.7	10.2	13.9	12.1	—
2. Savings Banks	4.2	3.6	2.6	—	3.4	3.5	3.6	2.7	1.0	3.0	3.5	5.5	6.1	4.9	—
3. Commercial Banks	14.5	20.0	13.2	—	17.6	21.4	18.4	14.9	20.9	11.2	5.8	35.1	24.7	22.8	—
4. Total	29.3	32.0	19.4	—	28.6	33.6	31.1	23.4	24.4	15.6	14.0	50.8	44.7	39.8	—

December 1967

The Outlook for 1968

The higher interest rates of the past few months and the possibility of even higher rates in 1968 raises questions about future disintermediation.

Most commercial banks, mutual savings banks, S & L's and insurance companies have improved their liquidity position during the past year. Liquid asset holdings have increased, loan-deposit ratios are lower, policy loan extensions of insurance companies have declined sharply, and S & L's are borrowing less from the Federal Home Loan Bank. Past experience, however, clearly suggests that all these financial institutions are still vulnerable to higher external interest rates. As these outside rates rise, widening the interest rate gap, all types of financial intermediaries will lose funds. Some preliminary data for the fourth quarter of 1967 already show a slight tendency in this direction.

One major difference likely to distinguish disintermediation in 1968 from that of previous years is that shifts of funds between institutions will probably not be as intense. In 1959, S & L's did relatively well at the expense of time deposit growth at commercial banks and savings banks; in 1966 the commercial banks succeeded at the expense of others. Since most of these institutions are now at or near their rate ceilings in contrast to earlier years, they will probably not lose funds to one another but rather to the market. In 1959 the "magic 5's" — the 5-year U. S. Treasury securities with a yield of 5 percent, a post-war high at that time — managed to pull funds out. With deposit rates higher today, such a feat may require a magic 6 — a not altogether impossible event in today's market. Nevertheless, if interest rates creep much higher, all financial institutions will feel the impact of any further tightening of credit conditions.

Nor could housing entirely escape these effects. The financial institutions that tend to concentrate their investments in residential mortgages are bound to be affected to some degree. Federal regulatory authorities may decide against raising legal ceiling rates on savings banks and S & L's since these institutions cannot afford higher payouts and remain technically solvent. Commercial banks have better earnings and probably could afford an increase in their maximum rates. In 1966, however, new maximums encouraged funds to flow to commercial banks from the other financial institutions intensifying the problems of the housing sector. In the view of that experience, the Federal Reserve Board may be reluctant to give commercial banks the competitive freedom they had in early 1966.

THE NEW ENGLAND EXPERIENCE

The technical supplement to this article, available on request to the Research Department of this Bank, contains the results of a series of regressions on a pooled cross-section sample of 40 commercial and savings banks in New England over the past 12 years. The results clearly show that funds have an interest sensitivity, not only among banks but also between banks and the open market. Two effects are noted: 1) an interest effect as measured by the difference between the bank's rate and either a competitive bank's rate or the rate on medium-term U. S. Government securities and 2) an availability effect as measured by growth in the money supply. Deviations around the average growth of savings deposits in an area are directly linked to interest rates. This phenomenon exists not only in the aggregate shown in Chart I but in an area by area and even bank by bank analysis over this 12-year time span.

Economic Impact of the Abolition of Meatless Fridays

by Frederick W. Bell

FOR over one thousand years, the Catholic Church required its members to abstain from meat on Friday in the spirit of penance. Because the renunciation of meat is not always the most effective means of practicing penance and since meat is no longer an exceptional food, the Catholic Church in November 1966 abolished meatless Fridays throughout the United States. Since that date, the fishing industry has been paying close attention to Catholic reaction.

This article will assess the impact of the abolition of meatless Fridays on the New England fishing industry. During the 9-month period following the Church decree, prices of New England fish were estimated to be, on average, 12.5 percent lower than normal after considering all other factors that affect fish demand. The result was an estimated loss to the New England industry of approximately \$3 million in this span. Although the short-run impact of the Church decree has resulted in economic loss to the fishing industry, the long-run demand for fish remains uncertain.

The problems of the fishing industry have been compounded by a decline in landings in the early part of this year. When the catch falls off, fishermen receive smaller returns. As a result of the decline in landings, sagging revenues have been further depressed. In

addition, the principal competitors of fish — meat and poultry — are in plentiful supply this year and their prices are declining.

The Decree

Acting on the recommendations from Catholic Bishops throughout the world, Pope Paul VI in February 1966 relaxed the rules on fasting and abstinence during Lent. According to the decree, Catholics need no longer abstain from eating meat during Lenten weekdays, except on Fridays. In addition, the Pope delegated to national conferences of local Bishops power to abolish the ban against eating meat on Fridays throughout the rest of the year. With this authority, the Catholic Bishops of the United States terminated meatless Fridays, except during Lent. Starting in December 1966, Catholics were no longer bound to refrain from eating meat on non-Lent Fridays. However, the Bishops' decree did contain the hope that the Catholic community would continue to abstain from meat by free choice. Thus, there are two effects: one decree affecting Lent and the other affecting non-Lent Fridays.

Since last December, the fishing industry has awaited apprehensively the reactions of Catholics to the decree. In general, there are two opposing views about the impact of the decree. The first feels that Catholics, once

released from the ban on eating meat, will eagerly switch to such protein foods as beef, veal and chicken. A second group argues that the decree will actually increase consumption since fish will no longer be considered a penance food. In the short run, which group is correct?

The Short-Run Impact

The Northeast United States represents an excellent area to analyze the impact of the Bishops' decree on the consumption of fish. This is true for two reasons: First, large quantities of fresh fish are landed at many New England ports and are widely distributed in the Northeast. Second, according to the U. S. Department of Commerce, 45.1 percent of the population in the Northeast are Catholics, more than double the percent in any other U. S. region.

To study the problem, seven species of fish — which are distributed to a large Catholic population — were selected. These species comprise approximately 72 percent by quantity and 79 percent by value of the catch landed in New England ports excluding lobster, clams, oysters, and miscellaneous marine products. It is unlikely that the latter are heavily tied to meatless Fridays. The species considered here are the following:

<i>Species</i>	<i>Principal Port(s)</i>
Sea Scallops	New Bedford
Yellowtail	New Bedford-Pt. Judith-
Flounder	Provincetown
Scrod (Small	New Bedford-Boston-
Haddock)	Gloucester
Large Haddock	New Bedford-Boston-
	Gloucester
Cod	New Bedford-Boston-
	Gloucester

Ocean Perch	Gloucester-Portland-
	Rockland
Whiting	Gloucester-Provincetown-
	Portland

The geographical distribution of landings throughout New England indicates that many communities may be affected by a decline in the demand for fish.

One difficulty in evaluating the impact of the Bishops' decree is that other demand factors which influence fish consumption must be held constant or controlled. To accomplish this, monthly fish prices received by fishermen for the last 10 years were statistically related to monthly figures on landings, consumer income, cold storage holdings, fish imports into New England, the average price of meat and poultry, Lenten demand, and the price of other landed fish products in the region. Any one of these demand factors might influence the analysis unless controlled.

The study is concerned with two time periods: 1) the 10-year period before the decree, January 1957 to November 1966 and 2) the period after the decree, December 1966 to August 1967 but excluding February and March. These latter 2 months were excluded because Catholics are obligated to abstain from meat on Lenten Fridays. After statistically controlling all demand factors that affect landing prices, the study showed that in the period after the Bishops' decree prices were lower than normal for all seven species considered. Normal prices are defined as those resulting from all other demand factors except the Bishops' decree. If the decree has no impact, actual and normal prices are identical. More specifically, the analysis revealed that landed prices of New England fish were, on the

Table 1
IMPACT OF THE ABOLITION OF MEATLESS FRIDAY ON NEW ENGLAND
LANDING PRICES FOR SEVEN FISH AND SHELLFISH SPECIES

(December 1966-August 1967)¹

Species	Actual Price per Pound ³ (£)	Actual Revenue (thousands of dollars)	Normal Price per Pound ⁴ (£)	Normal Revenue ⁵ (thousands of dollars)	Decline in Revenue ⁶ (thousands of dollars)	Percent Change in Revenue and Price
Sea Scallops	66.1	2,943	79.3	3,546	603	-17%
Flounder ²	11.7	2,989	13.6	3,476	487	-14
Scrod	11.3	4,228	11.5	4,314	86	- 2
Haddock	13.6	2,512	17.4	3,180	668	-21
Cod	8.9	1,949	9.9	2,166	217	-10
Perch	4.1	1,859	4.4	2,020	161	- 8
Whiting	3.1	1,251	3.8	1,563	312	-20
TOTAL (All Species)	9.2	17,731	10.6	20,265	2,534	-12.5

¹Excludes February and March.

²Yellowtail Flounder.

³Weighted average (weighted by quantity landed).

⁴Normal price is determined by all demand factors which affect price, except Bishops' decree.

⁵Normal price multiplied by actual landings.

⁶Normal revenue minus actual revenue.

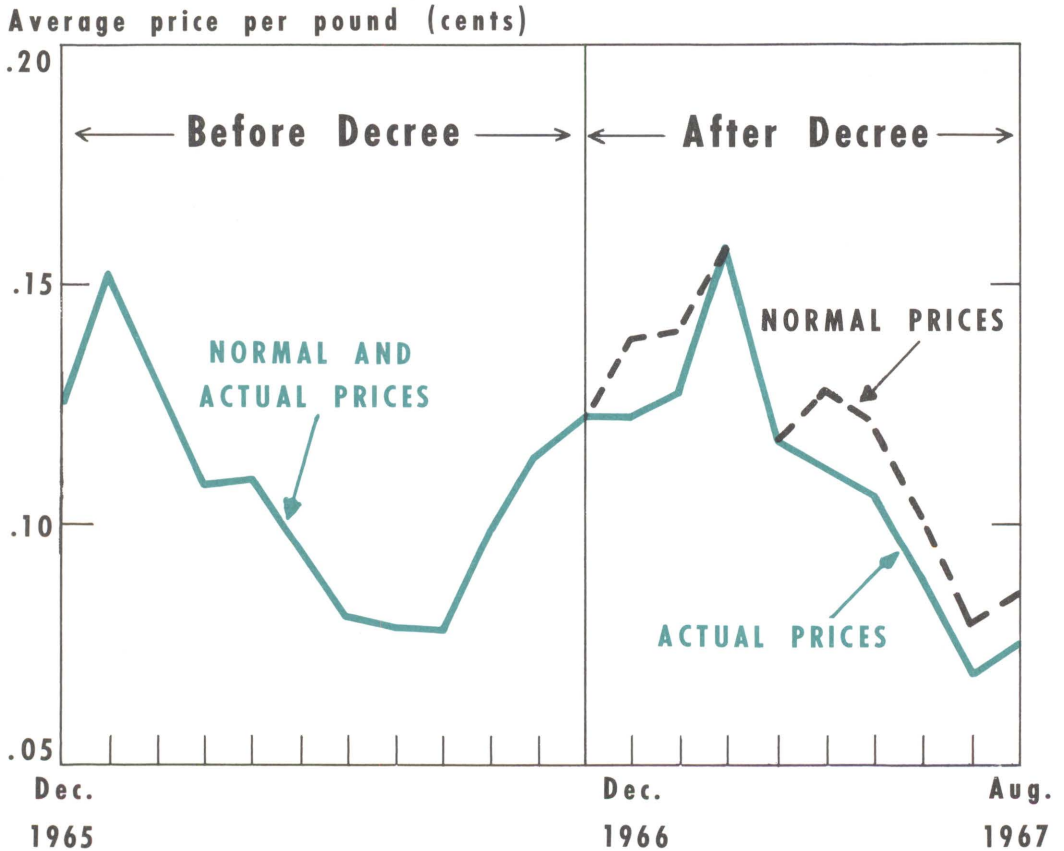
Source: Federal Reserve Bank of Boston and U. S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries.

average, 12.5 percent lower than normal after the decree. The decline in monthly prices from their normal values ranged from approximately 21 percent for haddock to 2 percent for scrod. Chart I shows the actual and normal price for seven species combined over the December 1965 to August 1967 period. Presumably, the impact would vary depending on which species were usually considered a Friday penance food. Table I shows the impact of the Bishops' decree on prices received by fishermen. Thus, the Bishops' decree apparently resulted in a decline in the demand for fish. This conclusion is also reflected in a 10 percent rise in fish cold storage holdings for the period after the decree, compared with a similar time span from 1965-1966. The rise in cold storage holdings is not the result of in-

creased landings. As indicated below, landings have fallen off in 1967.

This short-run decline in the demand has led to substantial economic losses to the New England fishing industry. For the seven species studied here, the fishing fleet has lost approximately \$2.5 million in revenue over the 7-month period from December 1966 to August 1967 (excluding February and March). If the average decline in price for the seven species considered here is used to estimate the approximate decline in price for the remaining New England species landed (excluding lobsters, clams, oysters, and miscellaneous marine products), the total economic loss for the industry may reach over \$3 million for the December through August period.

**ACTUAL AND NORMAL LANDING PRICES
FOR SEVEN NEW ENGLAND FISH AND SHELLFISH SPECIES
BEFORE AND AFTER THE ABOLITION OF MEATLESS FRIDAYS***



* AVERAGE PRICE FOR THE COMBINED SPECIES OF SCALLOPS, YELLOWTAIL FLOUNDER, SCROD, HADDOCK, COD, OCEAN PERCH AND WHITING.

These losses may also be considered on an individual basis. At the beginning of 1967, 704 trawlers employing 3,874 fishermen were working off the New England coast. If the economic losses are extended to a 10-month period (excluding Lenten months), the decline in fish consumption may result in an *annual* loss of \$2,228 per trawler and \$701 per fisherman. If an average vessel makes 5 percent on equity per year, the rate of return may drop to zero or become negative for many fishing trawlers as a result of the Bishops' decree.¹ Therefore, if losses persist, they may produce an attrition of both capital and labor from the industry.

The economic loss is distributed among many local communities. Table 2 indicates the regional distribution of losses by community in New England. The greatest absolute and percentage loss of revenue took place in New Bedford where those species which are highly sensitive to the Bishops' decree are landed.

The findings here are consistent with the results of a number of other surveys of Catholic reaction to the Bishops' decree. For example, a recent survey of suburban families in Chicago, Illinois, found that 35 percent were using less fish than before the decree. Another survey in early 1966 of Catholic families indicated that approximately 15 percent would no longer continue to abstain from meat on Friday if the Bishops lifted the meatless Friday edict. Finally, the Gallup poll in January 1967 revealed that 54 percent of this Nation's 45 million Catholics plan to eat meat on Friday.

¹Frederick W. Bell and Jared E. Hazleton, (eds.), *Recent Developments and Research in Fisheries Economics* (Dobbs Ferry, New York: Oceana Publications, Inc., 1967), p. 51.

It should be remembered that the Pope's decree freed Catholics from abstinence during Lenten weekdays, except Fridays. The decree was announced in February 1966 and applied to two Lenten periods since that date. To assess its impact, the same analysis as used for the Bishops' decree was applied solely to Lenten periods over the last 10 years. In the two Lenten periods after the Papal decree fish prices were somewhat lower than normal, although not statistically significant, for many of the seven species studied, holding all other demand factors constant. Therefore, the exact impact of the Papal decree is uncertain. Perhaps, when more post-decree Lenten months become available, the exact impact may be assessed.

"It Never Rains but It Pours"

This old adage aptly describes the conditions facing the New England fishing industry this year. The economic losses stemming from the Bishops' decree have been further compounded by a decline in landings and a fall in meat and poultry prices. Generally, a decline in landings results in a rise in prices for fish products. However, prices rise less than proportionally to the decline in landings; hence, revenues or the value of the catch declines. Because of the availability of many substitutes for individual fish products, demand is said to be highly elastic or that a rise in prices will result in a more than proportional fall in consumption.

From December 1966 to August 1967 landings of the seven species declined 23 percent compared with the same period a year ago. Holding all other demand factors constant, the decline in landings produced a 16 percent

Table 2 — GEOGRAPHICAL DISTRIBUTION OF ESTIMATED LOSS IN REVENUE DUE TO ABOLITION OF MEATLESS FRIDAY DECREE
(thousands of dollars)
(December 1966-August 1967)¹

Species	Boston		Gloucester		New Bedford		Plymouth & Provincetown		Maine		Rhode Island		Connecticut		New England			
	Normal Revenue \$	Estimated Loss in Revenue \$	Normal Revenue \$	Estimated Loss in Revenue \$	Normal Revenue \$	Estimated Loss in Revenue \$	Normal Revenue \$	Estimated Loss in Revenue \$	Normal Revenue \$	Estimated Loss in Revenue \$	Normal Revenue \$	Estimated Loss in Revenue \$	Normal Revenue \$	Estimated Loss in Revenue \$	Normal Revenue \$	Estimated Loss in Revenue \$		
Sea Scallops	—	—	—	—	3,466	589	4	1	1,470	590	73	12	3	1	—	—	3,546	603
Flounder ²	65	9	11	2	2,854	400	151	21	2,081	432	5	1	351	49	39	5	3,476	487
Scrod	2,469	49	1,077	22	620	12	62	1	1,228	84	83	2	3	*	—	—	4,314	86
Haddock	1,769	371	636	134	459	96	238	50	1,102	651	66	14	12	3	—	—	3,180	668
Cod	973	97	391	39	353	35	257	20	2,074	197	130	13	46	5	16	2	2,166	217
Ocean Perch	11	1	267	21	*	*	11	1	1,289	23	1,731	138	—	—	—	—	2,020	161
Whiting	*	*	717	143	—	—	192	3	1,009	181	603	121	47	9	4	1	1,563	312
Other ³	1,405	140	824	96	2,061	301	243	3	1,633	574	715	80	123	18	16	2	5,387	674
Total	6,692	667	3,923	457	9,813	1,433	1,158	17	17,686	2,732	3,406	381	585	85	75	10	25,652	3,208
Percent Change		-10%		-12%		-15%		-15%		-13%		-11%		-15%		-13%		-12.5%

¹Excludes February and March.

*Indicates a positive dollar sum less than \$1,000.

²Yellowtail Flounder.

³Estimated, excluding lobster, clams, oysters, and miscellaneous marine products

Source: Federal Reserve Bank of Boston and U. S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries

NOTE: Normal revenue is determined by all demand factors except the Bishops' decree. Estimated loss in revenue can be subtracted from normal revenue to obtain the actual value of the catch.

decline in industry revenue or approximately \$4.4 million.

Why did the decline in landings take place? Apparently, rough weather in the early months of 1967 coupled with a seasonal scarcity of fish in the Northwest Atlantic produced the light landings. The fleet made 18,270 trips over the December-August period compared with 18,929 during the same time a year ago. Thus, trips declined by a small percent. Since the number of vessels in the fleet has not changed recently, it must be concluded that the catch per trip declined this year. Table 3 shows the decline in landings by species.

Finally, the monthly index of meat and poultry prices averaged 4 percent lower than last year, resulting in a decline in fish prices of approximately 5 percent. This decline produced a loss in revenue of \$1.5 million over the December 1966-August 1967 period for seven species studied. Although the decline in land-

ings and the fall in meat and poultry prices may be just temporary, they have served to aggravate the impact of the Bishops' decree.

The Long-Run Picture: Uncertain

To assess the long-run impact of the Bishops' decree, it is important to establish whether Catholics ate more fish than non-Catholics before the decree. That is, non-Catholic demand for fish may be considered "normal" or without artificial inducements. Hence, if Catholics ate more fish than other groups during the meatless Friday era, this additional consumption might have vanished after the decree and produced the results found above. On the other hand, Catholics may have eaten the same amount of fish as non-Catholics, but merely reduced their consumption in the short run as a reaction to this new freedom on Friday. This second alternative might imply long-run optimism for the industry since

Table 3

CHANGE IN LANDINGS FOR THE NEW ENGLAND FISHING INDUSTRY

(Period following the abolition of the meatless Friday compared with the prior period.)

Species	Landings 12/65-8/66 (thousands of lbs.)	Landings 12/66-8/67 ¹ (thousands of lbs.)	Percent Change
Sea Scallops	9,104	5,167	-43%
Yellowtail Flounder	50,041	34,979	-30
Scrod	60,760	47,642	-22
Haddock	30,517	22,206	-27
Cod	20,896	23,959	+15
Ocean Perch	62,326	53,791	-14
Whiting	57,092	37,903	-34
Total (all species)	290,736	225,647	-22

¹includes February and March.

Source: U. S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries.

Catholics may, after a time, return to “normal” fish eating habits of non-Catholics. A final possibility — and one that is less optimistic — is that both Catholic and non-Catholic demand was artificially created by the institution of meatless Fridays. That is, to conform with meatless Fridays, many institutions and restaurants served fish that day and might have induced non-Catholics to eat more fish than usual. Each of the above alternatives is consistent with the finding that the Bishops’ decree produced a loss of demand for fish products. To shed some light on this problem, a study of fish consumption habits by religion was made.

The last survey of family expenditures on fish was made in the mid-1950’s. At that time, the average family spent about \$24 per year on all fish products. Analysis of these expenditures for 48 cities revealed that the primary determinant of fish expenditures was not family income, but the distance of the city from the sea. Cities at large distances from the sea tend to consume much less fish. This is presumably due to lack of availability as well as to higher fish prices because of transportation costs. In addition, expenditures per family on fish were not significantly influenced by the percent of Catholic population. This finding is also supported by two recent studies on fish consumption. The studies point out that Catholics may not have eaten more fish than other groups during the meatless Friday era.

Therefore, the decline in the demand for fish might be due to either a drop in total consumer demand or a temporary reduction of Catholic demand below non-Catholic demand. The first alternative may indicate a long-run impact of the Bishops’ decree while the latter might

be considered but temporary. What little information there is indicates that predominantly non-Catholic cities such as Atlanta, Georgia, Charlestown, South Carolina and Salt Lake City, Utah consume about as much fish as many Catholic areas after adjusting for distance from the sea. Thus, it would appear that non-Catholic demand is not determined by the institution of meatless Fridays. However, final resolution of the long-run impact of the Bishops’ decree awaits the passage of time. Perhaps, 18 to 24 months will be necessary to assess the long-run reactions of Catholics to fish consumption.

Conclusion

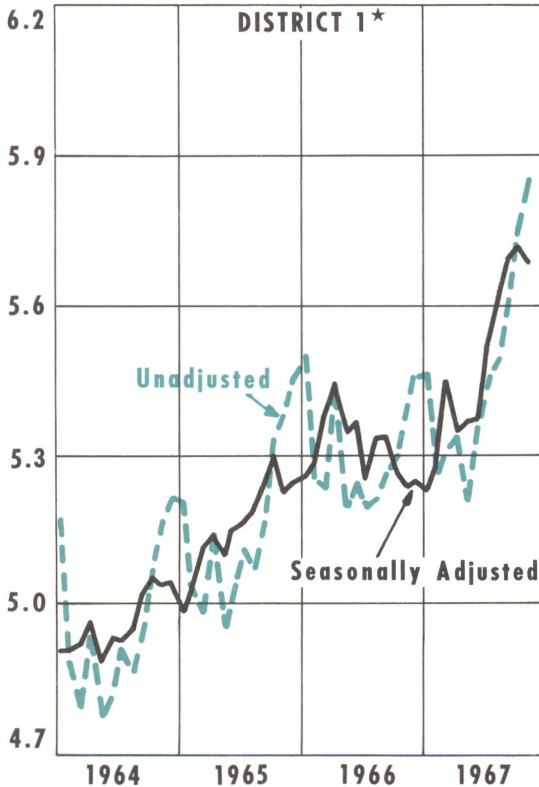
This article has shown that in the short run Catholics have apparently reduced their consumption of fish products after the Bishops’ decree abolishing meatless Fridays. The loss to the New England fishing industry over the first part of this year has amounted to approximately \$3 million. The problems of the industry have been complicated by a decline in landings and revenue as well as in meat and poultry prices. These unfortunate shocks have come in the wake of government efforts to arrest the decline in commercial fishing through the Fishing Fleet Improvement Act which provides Federal subsidies for trawler construction.² If the Bishops’ decree has a long-run impact, the industry may be forced to turn to more modern advertising and merchandising techniques to gain increased consumer acceptance for this high protein food. Also adopting new technologies such as stern trawling would help improve the industry’s efficiency and raise profits.

²Frederick W. Bell, “The New England Fishing Industry: Part II, The Impact of Government Aid,” *The New England Business Review* (Federal Reserve Bank of Boston, September 1965).

DEPOSITS AND CURRENCY

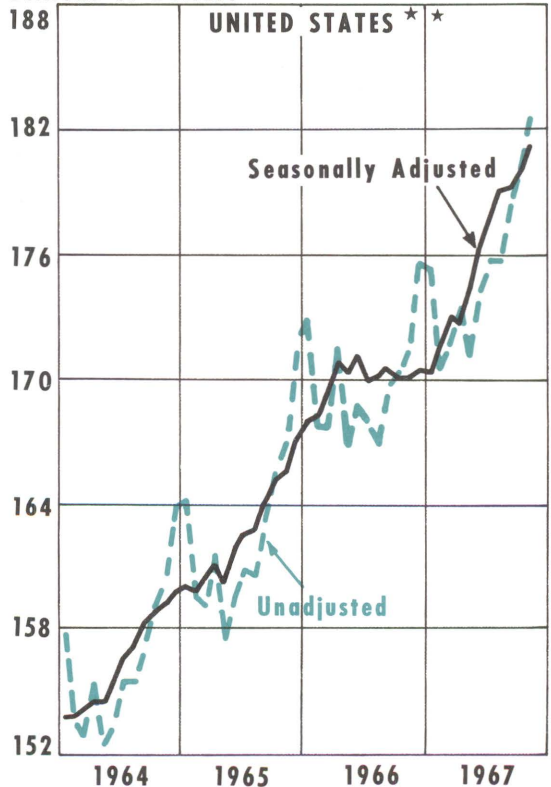
Monthly Average of Daily Figures

Billions of Dollars



* DEPOSITS ONLY

Billions of Dollars



** DEPOSITS AND CURRENCY

Money supply both in New England and the United States rose sharply during 1967. The rise reflects the expansive monetary policies followed during the year in contrast with 1966 when restraint halted monetary growth.

Here's New England -

MANUFACTURING INDEXES (seasonally adjusted) 1957-59 = 100	NEW ENGLAND			UNITED STATES		
	pOct. '67	Sept. '67	Oct. '66	Oct. '67	Sept. '67	Oct. '66
All Manufacturing	145	147	149	158	158	162
Nonelectrical Machinery	158	160	173	177	182	190
Electrical Machinery	174	182	169	182	182	193
Transportation Equipment	159	169	166	159	159	173
<i>Textiles, Apparel, Leather</i>	104	104	109	141	139	142
Textiles	99	98	103	144	141	142
Apparel	114	116	120	n.a.	147	152
Leather and Shoes	102	102	110	n.a.	108	114
Paper	141	139	142	154	153	153
	<u>Percent Change From:</u>			<u>Percent Change From:</u>		
BANKING AND CREDIT	Oct. '67	Sept. '67	Oct. '66	Oct. '67	Sept. '67	Oct. '66
Commercial and Industrial Loans (\$ millions) (Weekly Reporting Member Banks)	2,755	+ 2	+ 6	63,334	+ 1	+ 6
Deposits (\$ millions) (Weekly Reporting Member Banks)	8,122	+ 3	+17	195,641	+ 2	+10
Check Payments (\$ billions) (Selected Metropolitan Areas)*	273.4	+ 9	+17	3,890.6	+ 1	+11
Consumer Installment Credit Outstanding (index, seas. adj. 1957-59 = 100)	183.2	0	+ 3	225.9	0	+ 4
DEPARTMENT STORE SALES (index, seas. adj. 1957-59 = 100)	140	0	+ 4	n.a.	n.a.	n.a.
EMPLOYMENT, PRICES, MAN-HOURS & EARNINGS						
Nonagricultural Employment (thousands)	4,230	- 2	0	66,831	0	+ 3
Insured Unemployment (thousands) (excl. R.R. and temporary programs)	66	- 3	+14	906	- 1	+19
Consumer Prices (index, 1957-59 = 100)	117.4 (Mass.)	0	+ 2	117.5	0	+ 3
Production-Worker Man-Hours (index, 1957-59 = 100)	104.0	- 1	- 4	116.0	- 1	- 4
Weekly Earnings in Manufacturing (\$) (Mass.)	107.96	- 2	+ 2	116.57	0	+ 2
OTHER INDICATORS						
<i>Total Construction Contract Awards** (\$ thous.)</i>	305,266	+ 8	+28	4,950,771	+ 1	+19
Residential	106,412	+ 1	+24	1,846,602	+ 1	+38
Nonresidential	141,852	+11	+50	1,835,546	+ 2	+ 6
Public Works and Utilities	57,002	+14	0	1,268,623	0	+15
Electrical Energy Production (4 weeks ending Oct. 7) (index, seas. adj. 1957-59 = 100)	181	- 1	+ 8	188	+ 2	+ 7
Business Failures (number)	45	-17	-27	949	+ 4	-18
New Business Incorporations (number)	1,001	+ 1	+14	17,233	+ 6	+13
*Seasonally adjusted annual rate						
**3-mos. moving averages — Aug., Sept., Oct.						
	p = preliminary			n.a. = not available		



1967 Index of Articles

New England Business Review, January through December

FEDERAL RESERVE BANK OF BOSTON

Banking and Finance

- Economies of Scale in Commercial Banking
 - Part I . . . The Measurement and Impact (Mar. p. 2)
 - Part II . . . Specialization and Technology (Apr. p. 2)
 - Part III . . . The Overall Impact of All Cost Factors (June p. 13)
 - Part IV . . . The Role of Costs in Banking Regulation (July p. 12)
- New Commercial Banks in Massachusetts (Sept. p. 2)
- The Outlook for Financial Disintermediation (Dec. p. 2)
- Running the Bank's Money Position: A Study of Demand Deposit Fluctuations (Nov. p. 10)

Business Conditions

- Annual Review — A Peak Year Draws to an Uncertain Close (Jan. p. 7)
- First Quarter — Hopefully, A Pause That Refreshes (May p. 14)
- Second Quarter — After the Pause, A Resurgence? (Aug. p. 8)
- Third Quarter — Corner Turned in the Third Quarter (Nov. p. 2)
- Rising Sales Expected in the Third Quarter (July p. 10)
- Sales to Rebound (Jan. p. 15)

Economic Growth

- Why New England Grows (Feb. p. 2)

Economic Impact

- Economic Impact of the Abolition of Meatless Fridays (Dec. p. 9)
- The Economic Impact of a Small College (Sept. p. 11)

Employment

- Manufacturing Employment Changes in New England 1947-1967 (Oct. p. 8)

Foreign Trade

- Selling Abroad Takes More Than Statistics (Feb. p. 7)
- U. S. Imports and the Manufacturing Utilization Rate (Aug. p. 2)

Industrial Training

- The Role of Public Vocational Education (Jan. p. 2)

Industry

- Capital Spending Gain Slows (Apr. p. 11)
- Capital Spending Plans Revised Upward (Oct. p. 2)
- New England's Building Boom (Mar. p. 12)
- The Region's Roving Industries (June p. 2)

Regional Planning

- Resource Planning for the Connecticut River Valley
 - Part I . . . Water Problems (May p. 2)
 - Part II . . . Planning Problems (July p. 2)

Unemployment

- Where did New England's Structural Unemployment Go? (Jan. p. 17)