The Norwegian Ecom Market at 3rd quarter 2008

12 December 2008

Revised 18 December 2008

Post- og teletilsynet

The Norwegian Ecom Market

at 3rd quarter 2008

Norwegian Post and Telecommunications Authority (NPT) carries out quality control of the reports submitted by operators. Sometimes, however, NPT does not uncover erroneous reports until several years of data can be compared. NPT therefore disclaims any errors that may occur.

1 Introduction

1.1 Concerning NPT's ecom reporting

For several years the Norwegian Post and Telecommunications Authority (NPT) has been publishing annual and semi-annual statistics on developments in electronic communication services. Recent years' reports are published on NPT's website.[1]

From 2008 NPT has also obtained statistics on selected parts of the ecom market as of the 1st and 3rd quarters. The purpose of the quarterly reports is to shed light on developments in key growth areas where changes are taking place rapidly and where most attention is being paid. The quarterly reports thus enable NPT to identify any new factors in the ecom market.

The quarterly reports pertain to voice over IP (VoIP), mobile telephony, mobile broadband and fixed broadband services. For these services NPT collects figures for subscriptions, traffic and revenue. Consequently, the quarterly reports do not cover traditional fixed telephony, data communications and leased lines. Nor do the quarterly reports cover transmission of TV signals, even though this is an area where rapid changes are currently taking place.

The quarterly reports cover the scope of providers' services in the retail market. Statistics on wholesale services or interconnection have not been collected.

The overview below provides an overview of the services currently covered by the individual reports.

	Full year	**1st quarter**	**Half year**	**3rd quarter**
Fixed telephony	√		√	
VoIP	√	√	√	√
Mobile telephony	√	√	√	√
Mobile broadband	√	√	√	√
Fixed broadband	√	√	√	√
Data communications	√			
Leased lines	√			
Transmission of TV signals	√		√	

Statistics on an annual and semi-annual basis are collected from all providers in the ecom market. The statistics collected as of the 1st and 3rd quarters of 2008 cover a sample of providers. A small number of providers account for the largest volumes in the market. Exploiting this fact makes it possible to publish the reports more quickly and using fewer resources that would otherwise be the case.

For the statistics for 3rd quarter 2008, data have been gathered from the largest providers and from a sample of medium-sized providers, 37 in all. The share these providers had of the total market as of the 1st half of 2008 was used to estimate the total market as of 3rd quarter 2008. The sample of providers covers most of the markets for mobile telephony and mobile broadband, while it covers a somewhat smaller share of the markets for VoIP and fixed broadband, where there are a relatively large number of providers. The providers in the sample had 93.7 per cent of total revenues in the first half of 2008 for the four service areas taken together.

The sample's percentage of the total market as of the first half of 2008 is shown in the table on the following page for the number of subscriptions and revenue. It is these percentages that are used

[1] www.npt.no

for calculating the figures in this report for 3rd quarter 2008. A low percentage will normally mean that there is greater uncertainty in the estimate for the total market than in those cases where the percentage is high.

In reality, this method of calculation for the total market in 3rd quarter 2008 means that we assume that the providers not included in the sample had the same volume change in the 3rd quarter as the providers included in the sample.

	Share of number of subscriptions	Share of revenue
VoIP	84,5 %	88,0 %
Mobile telephony	95,8 %	97,5 %
Mobile broadband	99,9 %	99,9 %
Fixed broadband	89,5 %	84,4 %

NPT uses the data as of 3rd quarter 2008 to estimate actual volumes at the end of 2008. It is assumed that the absolute change in 4th quarter 2008[2] will be the same as during the 3rd quarter. This can be a simple and realistic assumption for the variables where major changes do not take place from one quarter to the next. For services where rapid changes are taking place, such an assumption is less realistic, such as the case may be with the rapid developments in mobile broadband, see Chapter 4. Nor does such a simple assumption take any seasonal variations into consideration, see comments on section 2.2 regarding VoIP.

1.2 Main data

The table below shows the change for subscriptions and revenues for the four service areas covered by this report.

	2007	2008 (estimate)	Per cent change
VoIP	458 517	524 000	14,3 %
Mobile telephony	5 050 000	5 157 000	2,1 %
Mobile broadband[3]	87 490	276 000	215,5 %
Fixed broadband	1 435 976	1 589 000	10,7 %

Table 1 Number of subscriptions at the end of 2007 and estimates at the end of 2008

	2007	2008 (estimate)	Per cent change
VoIP	870 000	967 000	11,1 %
Mobile telephony	14 849 000	15 100 000	1,7 %
Mobile broadband[4]	262 000	429 000	63,7 %
Fixed broadband	5 447 000	6 582 000	20,8 %

Table 2 Revenue in 2007 and revenue estimate in 2008. Revenue in NOK 1,000

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If the readers of this report have comments and/or suggestions for changes/improvements to the report, we would appreciate it if they would send them to statistikk@npt.no.

[2] In the figures the estimate for 4th quarter is shown as a separate grey field.
[3] Growth of mobile broadband subscriptions is very strong. Consequently, the estimate for subscriptions and revenues for 2008 is uncertain.
[4] The same as footnote 3.

2 VoIP

2.1 Subscriptions

VoIP is fixed telephony over Internet Protocol (IP), a communications protocol that covers addressing and path selection for data packets for the Internet and other IP-based networks. VoIP was introduced in the Norwegian market in 2004.

The number of VoIP subscriptions at the end of each half year or full year is shown in figure 1. The increase in the number of subscriptions was particularly strong in 2005 and 2006, although growth has subsequently diminished somewhat. At the end of 3rd quarter 2008 there were around 508,000 subscriptions for VoIP. This compares with about 492,000 at the end of the first half of 2008 and 461,000 at the end of 2007.

NPT estimates the number of VoIP subscriptions at the end of 2008 to be 524,000, i.e. an increase of nearly 63,000 over the course of the year. By comparison, the increase in 2007 was 97,000.

Business customers represent only a small share of the number of subscriptions, approximately three per cent.

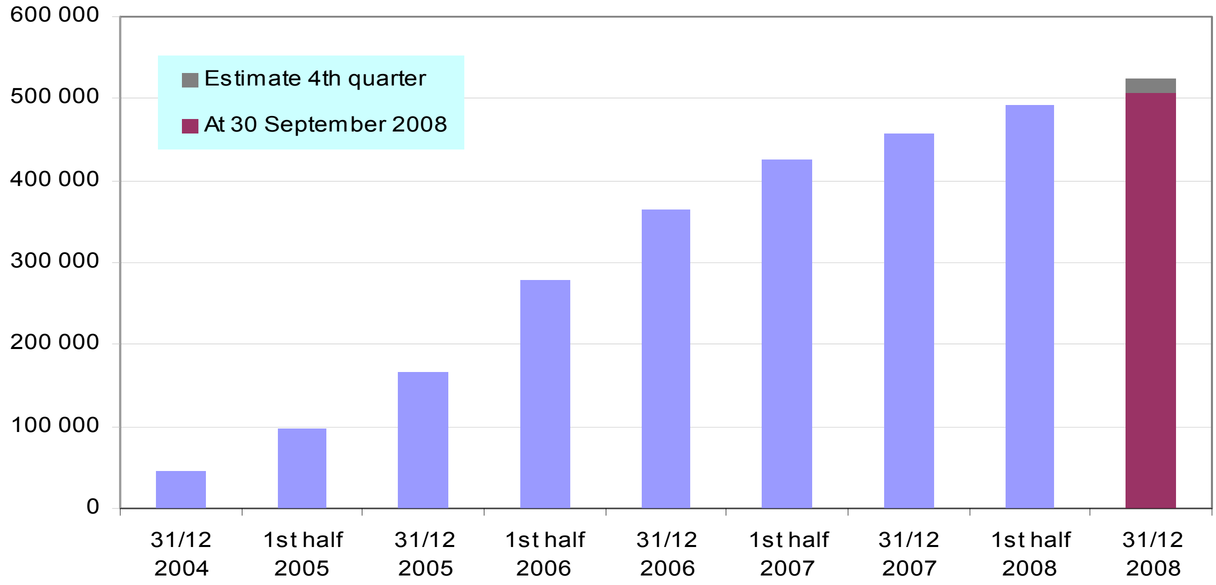

Figure 1 Change in number of VoIP subscriptions at the end of the period in question. Non-business and business subscriptions in all

2.2 Traffic

The number of traffic minutes from VoIP subscriptions is estimated to be about 1.8 billion in 2008, an increase of only 25 to 30 million minutes since 2007[5]. From 2006 to 2007 the increase was more than 390 million minutes. This means that growth in traffic is flattening out despite a certain amount of growth in VoIP subscriptions.

The transition from rapid growth to a flattening out of the number of traffic minutes has gone relatively fast: From 2006 to 2007 traffic increased by 29 per cent. From the first half of 2007 to the first half of 2008 growth fell 8.6 per cent. From 2007 to 2008 growth was estimated to be barely two per cent.

One possible explanation of this is given in section 2.3 on revenue.

[5] Seasonal fluctuations in the use of fixed telephony, including VoIP, cannot be ruled out. It is conceivable that non-business customers have a higher number of calling minutes in the 4th quarter, which includes the Christmas holiday, compared with the 3rd quarter, which includes the summer holiday. If this is the case NPT's estimate may be too low. NPT does not have the data to support this factor.

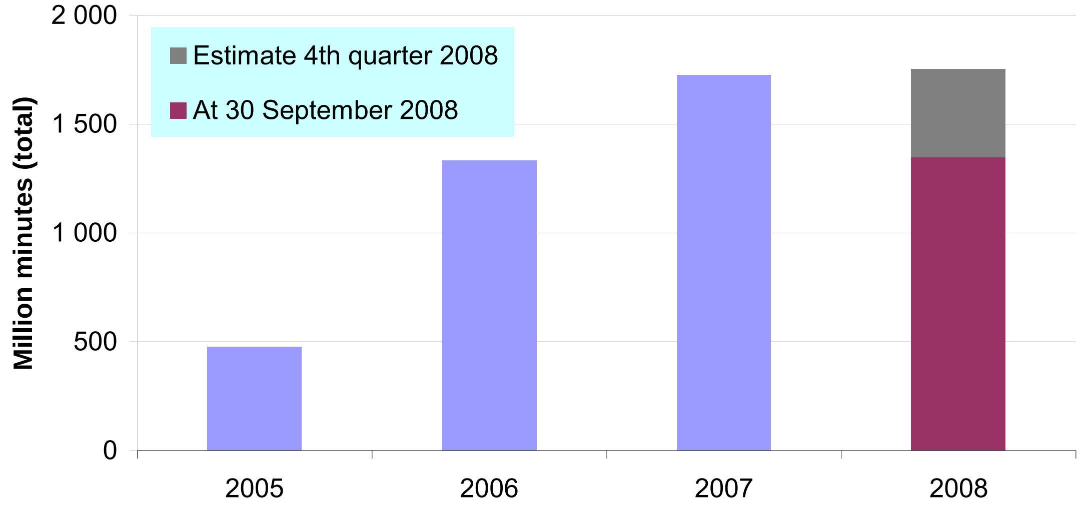

Figure 2 Number of traffic minutes for VoIP. Non-business and business subscriptions in all. Figures in million minutes

2.3 Revenue

Figure 3 shows the change in revenues for VoIP subscriptions. NPT estimates revenues in 2008 to be NOK 966 million. By comparison, revenues in 2007 were NOK 870 million, i.e. an increase from 2007 to 2008 of just NOK 96 million. By comparison, the increase from 2006 to 2007 was NOK 171 million.

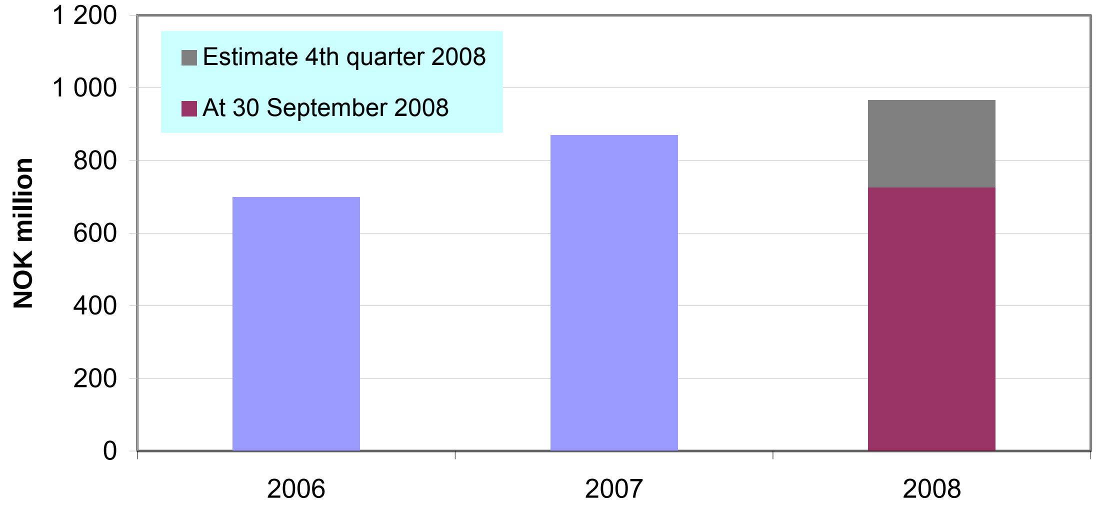

Figure 3 Revenue for VoIP subscriptions. Non-business and business subscriptions in all. Figures in NOK million

Table 3 on the next page shows that revenue per subscription[6] is diminishing. The same applies to traffic per subscription measured in the number of traffic minutes. The monthly revenue per subscription has been gradually reduced from almost NOK 220 in 2006 to NOK 166 in 2008. During the same period the monthly number of traffic minutes per subscription fell from 418 in 2006 to approximately 330 in 2008.

One possible explanation of this is the following: A majority of VoIP subscriptions are sold as part of access solutions where VoIP is considered an "additional service" and where the competitive situation in addition indicates that VoIP is sold as an additional service at a relatively low monthly

[6] Revenue and traffic during the year in question have been viewed in relation to the average of the number of subscriptions at the end of this year and at the end of the previous year.

subscription charge, as part of a package solution if applicable. Most growth in VoIP subscriptions is taking place using cable TV and fibre as access technology[7]. In addition, there is reason to believe that new subscribers have a calling pattern with generally lower monthly traffic than subscribers who were early adopters of VoIP.

Data per month per subscription	2006	1st half of 2007	2007	1st half of 2008	3rd quarter 2008	2008
Revenue in NOK	219	191	176	170	167	166
Traffic in number of minutes	418	366	349	331	310	301

Table 3 Change in monthly revenue per subscription and monthly traffic per subscription. The 3rd quarter column covers the period from the end of the year up to and including the 3rd quarter

2.4 Market shares

Figure 4 shows the market shares for the biggest providers in VoIP. The total number of subscriptions has been used as a measurement basis. Telenor increased its market share from 27.8 per cent at the end of 2007 to 28.6 per cent at the end of 3rd quarter 2008. During this period Telenor took 35.6 per cent of the increase in the number of subscriptions.

During the same period Get took 30.3 per cent of the increase in the number of subscriptions, thereby increasing its market share from 4.2 per cent to 6.7 per cent. In all, Telenor and Get took 65.9 per cent of the increase in the number of subscriptions in the period.

Telio is the next largest provider in the market measured by number of subscriptions and took 10.0 per cent of the growth during the period, though its market share was nevertheless reduced from 22.3 per cent to 21.1 per cent. Both NextGenTel and Tele2 had fewer subscriptions at the end of the 3rd quarter of 2008 than at the end of 2007.

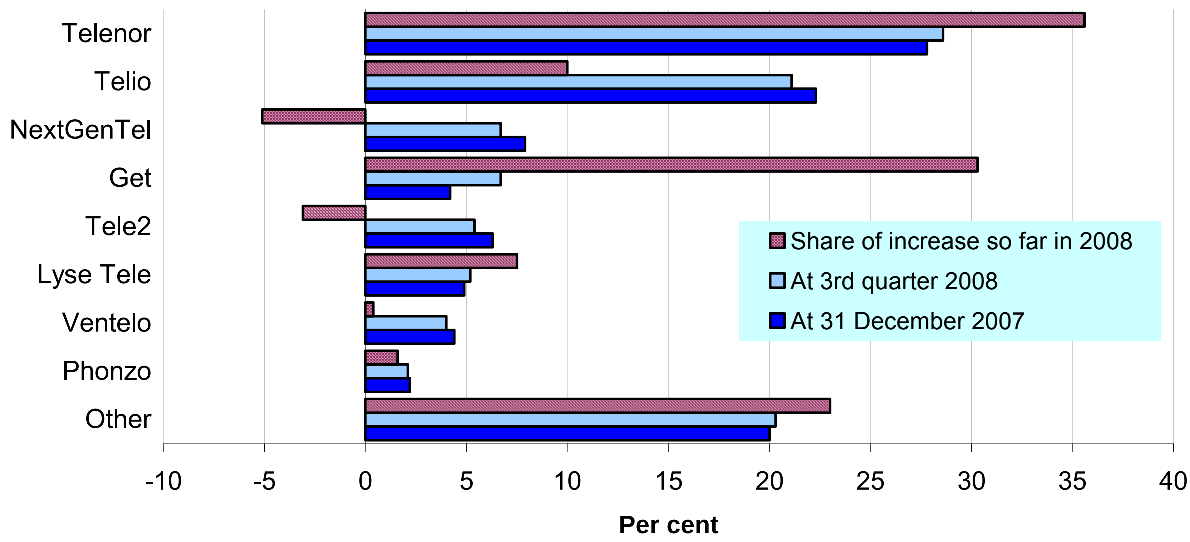

Figure 4 Change in market shares for VoIP subscriptions during the period from the end of 2007 to the end of 3rd quarter 2008. Non-business and business subscriptions in all

[7] Many of the providers who use ADSL as their access solution for VoIP have reduced their market shares, see section 2.4.

3 Mobile telephony

3.1 Subscriptions

NPT measures the number of mobile telephony subscriptions that are used for voice calls[1]. The number of mobile telephony subscriptions at the end of 2008 is estimated to be 5,157,000. By comparison, at the end of 2007 the number of subscriptions was 5,050,000, i.e. an increase of about 107,000.

The number of prepaid cards[9] has been dropping for many years, both in absolute numbers as well as proportionally in relation to the total number of mobile telephony subscriptions. During the period from the end of the first half to the end of 3rd quarter 2008 the number of prepaid cards increased by more than 20,000, to a total of about 1,378,000. At the end of 3rd quarter 2008 the prepaid card share was 26.9 per cent[10].

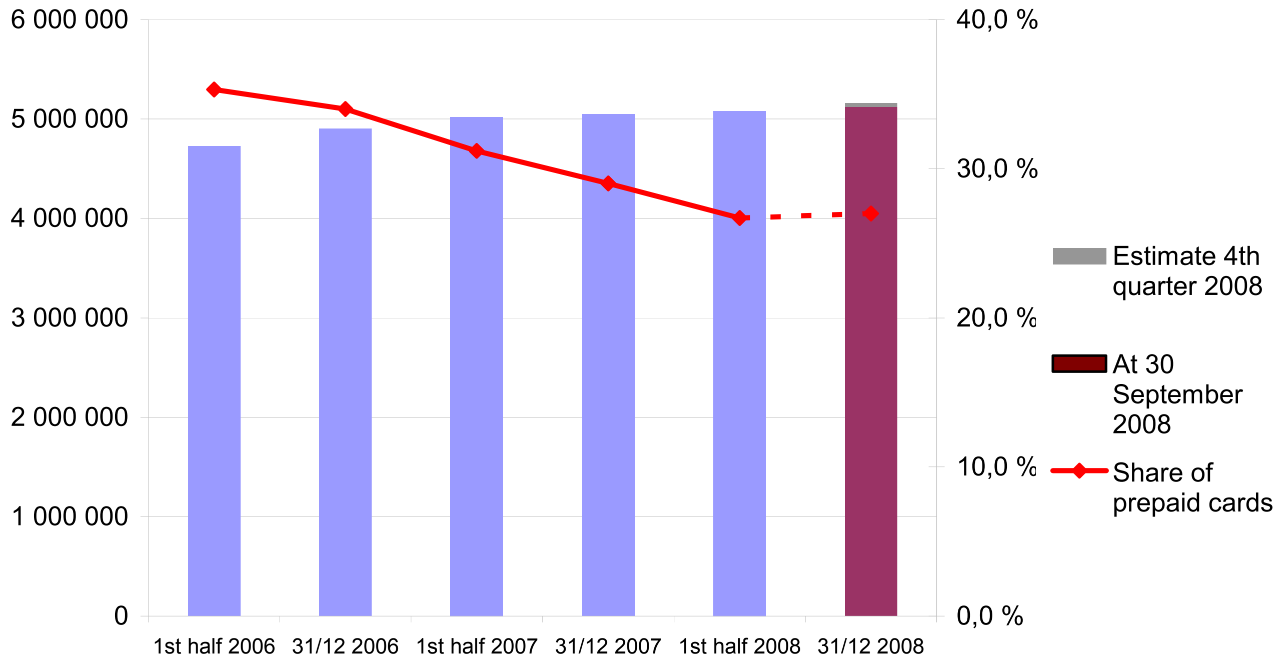

Figure 5 Change in number of mobile telephony (voice) subscriptions at the end of the period in question. Non-business and business subscriptions in all

At the end of 3rd quarter 2008 just under 77 per cent of the mobile telephony subscriptions were registered to non-business customers[11].

3.2 Traffic

The number of traffic minutes originated from mobile telephony subscriptions in 2008 is estimated at 10.4 billion. By comparison, the number of minutes in 2007 was nearly 9.3 billion, i.e. an

[8] Up to and including 2007, the number of mobile telephony subscriptions has included both voice subscriptions and SIM cards used for communication between computers (M2M), such as alarms. Starting 2008 mobile subscriptions are purely voice subscriptions. The subscription numbers in the figures are adjusted for this back to 2006.
[9] Only prepaid cards used in the last three months before the end of the registration period are counted.
[10] This increase in the number of prepaid cards happened during the 3rd quarter of 2008 and is probably attributed to offers from certain providers aimed at the prepaid card segment. The number of prepaid cards at the end of the relevant periods were: 2007: 1,424,600; first half of 2008: 1,357,400; 3rd quarter 2008: 1,378,000; 2008 (estimate): 1,398,000. The estimate at the end of 2008 is based on the increase in the 3rd quarter continuing in the 4th quarter. This assumption is uncertain.
[11] Subscriptions registered to entities with an organisation number count as business subscriptions. The rest count as non-business subscriptions.

increase of 1.1 billion. The annual increase has been relatively constant over many years, despite that the growth in the number of mobile telephony subscriptions is slower than earlier. Around 60 per cent of the traffic minutes is originated from private mobile telephony subscriptions.

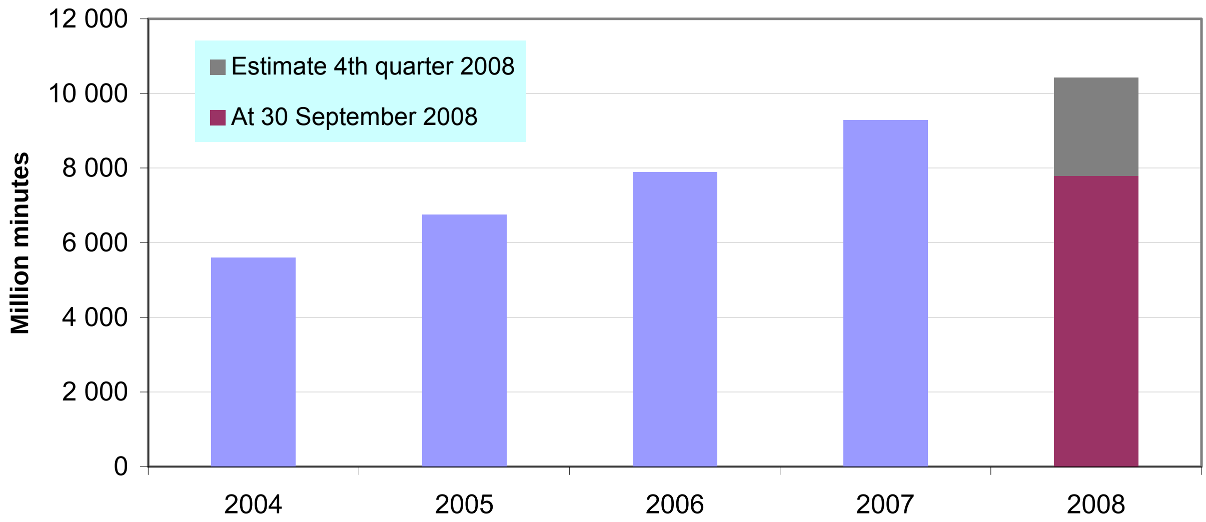

Figure 6 Number of traffic minutes originated from mobile telephony subscriptions. Non-business and business subscriptions in all. Figures in million minutes

The number of text messages in 2008 is estimated at 6.3 billion. By comparison, the number was 5.8 billion in 2007. The growth in the number of text messages has been strong and relatively stable for a number of years. 84 per cent of the text messages are sent from private mobile telephony subscriptions.

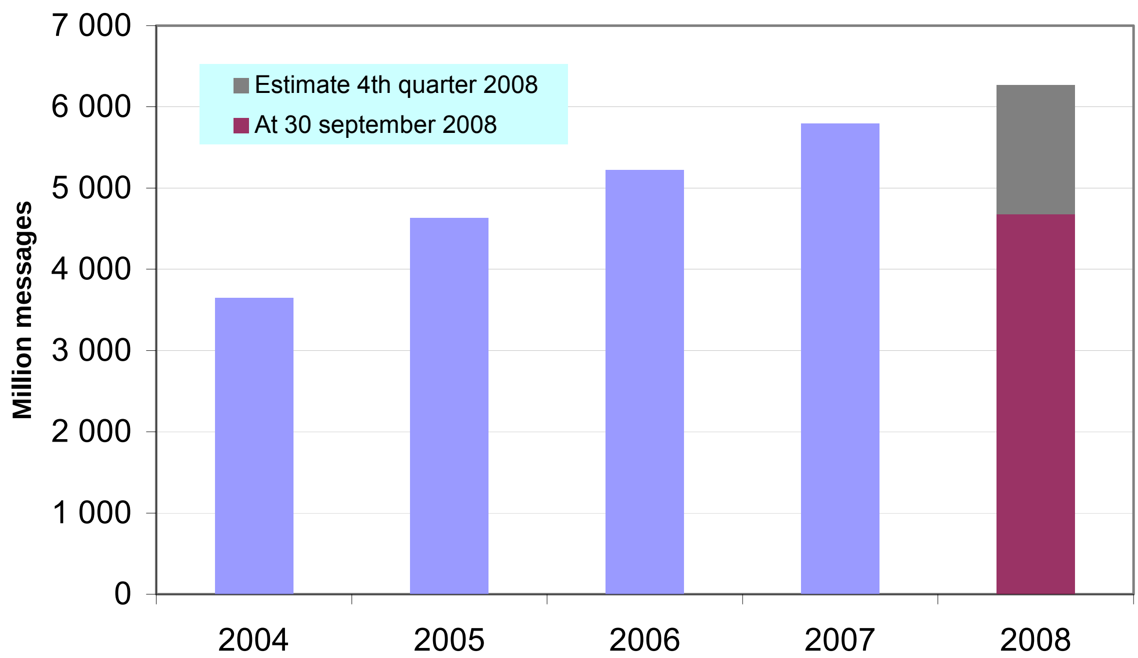

Figure 7 Number of text messages sent. Non-business and business subscriptions in all. Figures in million messages

Mobile telephone subscriptions generate data transmissions, for example in connection with access to the Internet. In Chapter 4, this traffic is described for subscribers who have special subscriptions for mobile broadband. The data traffic discussed in this chapter is generated from ordinary mobile telephony subscriptions. This data traffic accounts for a small proportion compared with the data traffic from special mobile broadband subscriptions.

Table 4 shows data traffic recalculated on a monthly basis in three periods, measured in number of GB. There is reason to believe that subscribers who previously had relatively much data traffic have obtained their own subscriptions for mobile broadband and that this can explain the decline from 2007 to the first half of 2008. Data traffic rebounded during the 3rd quarter. Among other things, it may be connected with the introduction of the iPhone[12] and similar handsets in the Norwegian market, plus pricing models with a number of MB included in the subscription charge.

Period	2007	1st half of 2008	3rd quarter 2008
Data traffic per month (GB)	12,750	11,700	15,300

Table 4 Change in data traffic per month generated from ordinary mobile telephony subscriptions. Non-business and business subscriptions in all. Figures in number of GB (= 1,000 MB). The 3rd quarter column covers just this quarter (3 months)

3.3 Revenue

The annual increase in mobile telephony revenue has been decreasing in recent years. 2008 revenues are estimated at about NOK 15.1 billion, an increase of nearly NOK 300 million in 2008 compared with 2007. By comparison, the increase in 2007 was slightly over NOK 500 million.

Non-business subscriptions account for about 63 per cent of all revenue.

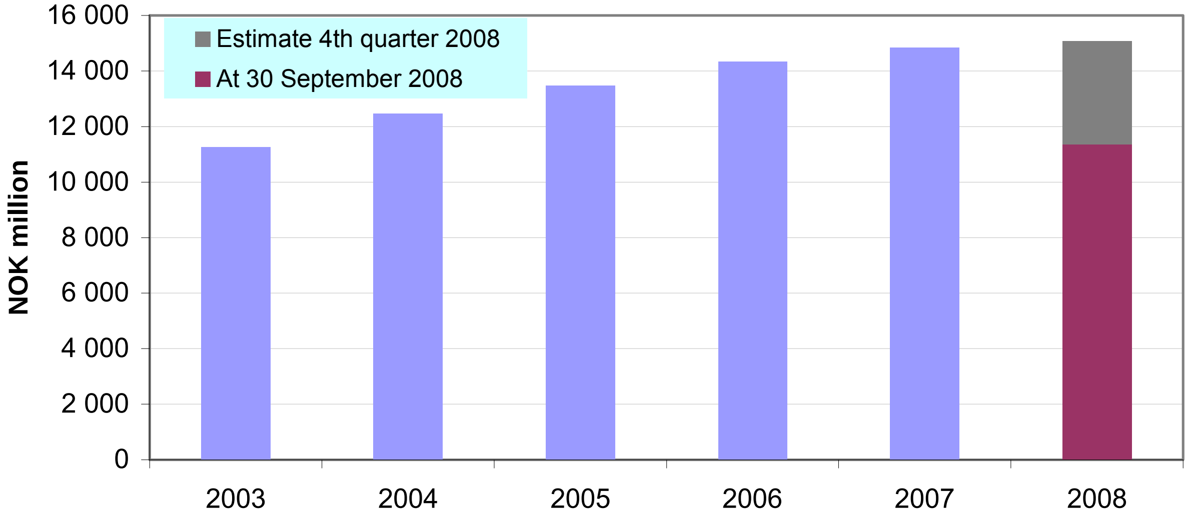

Figure 8 Total revenue for mobile telephony subscriptions. Non-business and business subscriptions in all. Figures in NOK million

3.4 Market shares

From the end of 2007 until the end of 3rd quarter 2008 the number of mobile telephone subscriptions increased by almost 36,000. This is a net figure covering relatively large changes among the companies. Overall, the three largest providers, Telenor[13], NetCom and Tele2, have reduced the number of subscriptions by more than 57,000. Their total market share has been reduced from 83.6 per cent to 81.2 per cent during the period.

[12] Overall, Telenor and NetCom have 86 per cent of the data traffic via ordinary mobile telephony subscriptions. Over the course of 3rd quarter 2008, NetCom increased its share, while Telenor's share is somewhat reduced. NetCom has entered into an agreement on the sale of iPhone, which can support the assumption that a large share of the increase in data traffic in the 3rd quarter is due to the introduction of the iPhone in August.

[13] During 3rd quarter 2008 the Telenordic, Talkmore and Talkmore Ekstra companies were merged with Telenor. Market shares for Telenor before this period therefore also include these providers.

Overall, One Call and Lebara have an increase of nearly 100,000 in the number of subscriptions during the period. Their overall market share therefore increased from 4.0 per cent to 5.9 per cent. Chess saw a small increase in the market share during this period, while Ventelo's market share is the same.

Figure 9 shows the change in market shares measured by number of subscriptions for providers who had more than a one per cent share at the end of 3rd quarter 2008. There are considerable differences in revenues for the individual providers seen in relation to the number of subscriptions the individual has. Figure 10 therefore shows market shares measured also by revenues in 2007 and the three first quarters in 2008. Here too, only providers with shares larger than one per cent in 2008 are included. Telenor, NetCom and Ventelo have a higher market share measured by revenue than what is the case when the number of subscriptions is used. These providers thus have relatively high revenue per subscription. For Chess and particularly One Call the situation is the opposite.

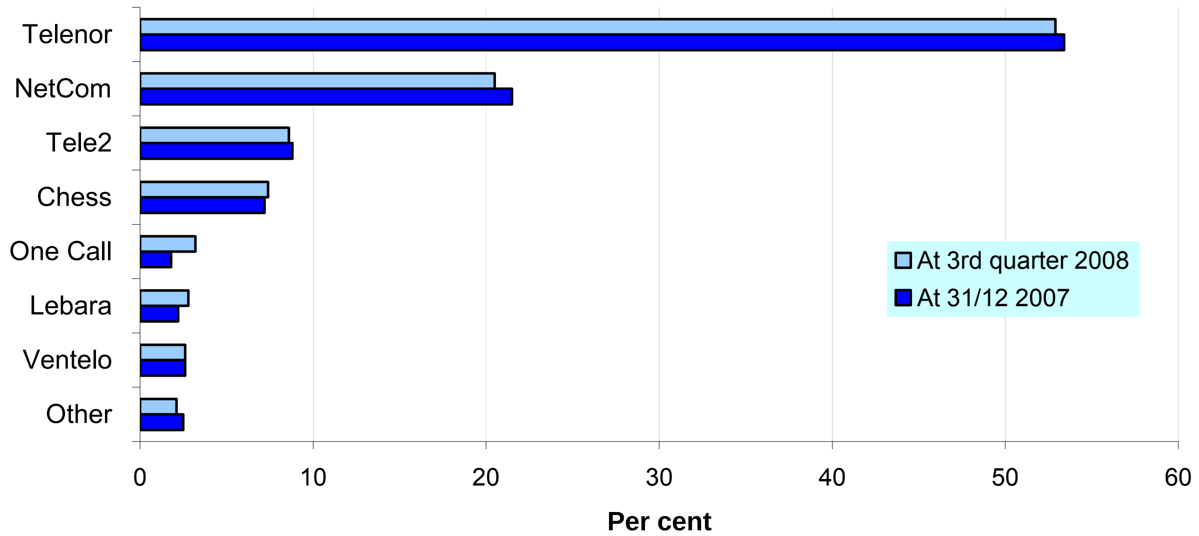

Figure 9 Change in market shares for mobile telephony subscriptions in the period from the end of 2007 until the end of 3rd quarter 2008. Order based on market share at 3rd quarter 2008. Non-business and business subscription in all

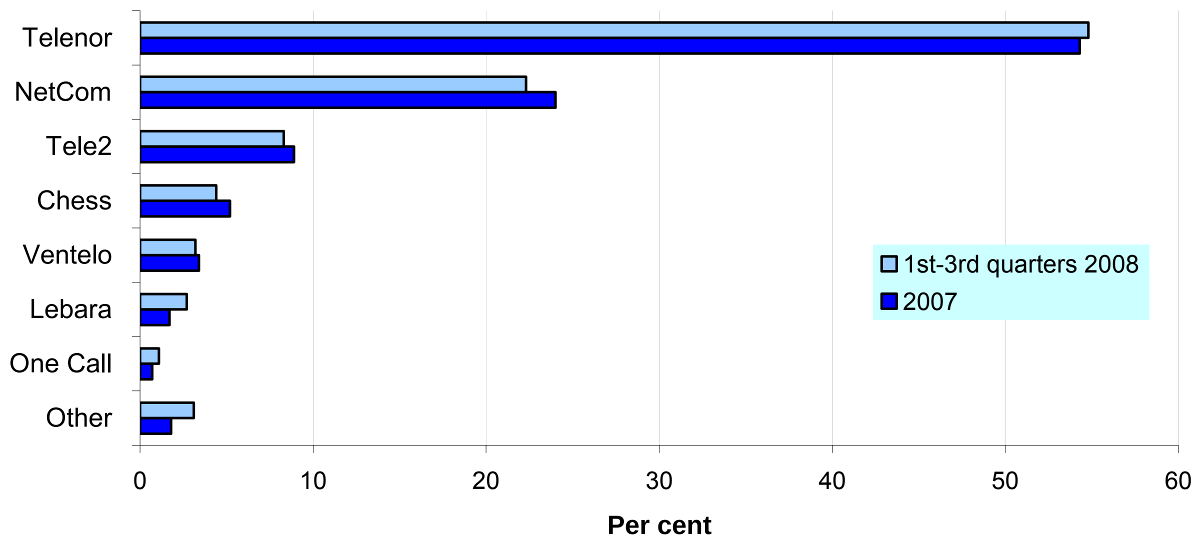

Figure 10 Change in market shares for mobile telephony measured by providers' retail revenues in 2007 and the three first quarters in 2008. Order based on share of revenue in 2008. Revenues for non-business and business subscriptions in all

4 Mobile broadband

In this report the term mobile broadband is used for specific subscriptions offered to provide customers access to the Internet via the mobile network. The speed offered can vary depending on the capacity and technological solution on the net at the site in question. Data traffic via ordinary mobile subscriptions is discussed in section 3.3.

4.1 Subscriptions

Figure 11 shows the change in the number of mobile broadband subscriptions. The total number of subscriptions by the end of 3rd quarter 2008 was 220,000. This is an increase of 55,500 just since the first half of 2008 and fully 132,000 since the end of 2007.

With the same absolute growth in 4th quarter 2008 as during the 3rd quarter, the number of subscriptions at the end of 2008 will be about 275,000. However, the underlying growth can indicate that the number of subscriptions at the end of the year can be higher than this, perhaps nearly 290,000.

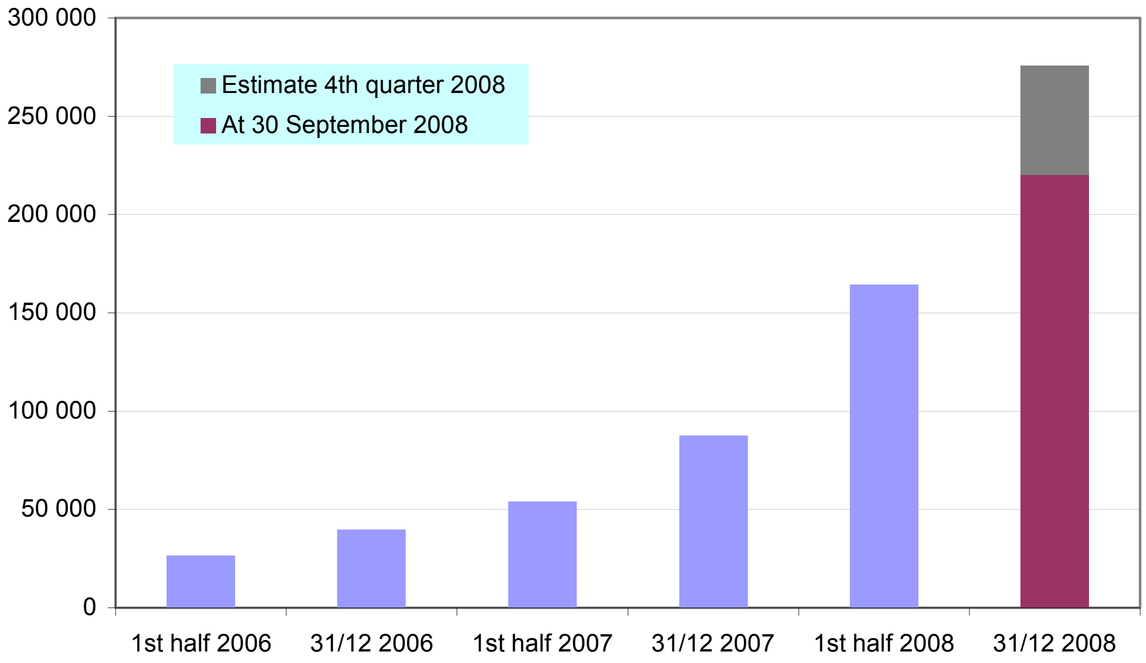

Figure 11 Change in number of mobile broadband subscriptions at the end of the period in question. Non-business and business subscriptions in all

Non-business subscriptions accounted for approximately 53 per cent of the total number of subscriptions at the end of 3rd quarter 2008. The corresponding share at the end of 2007 was about 40 per cent. More than 62 per cent of the increase in subscriptions during this period has been non-business subscriptions.

4.2 Traffic

NPT obtains statistics of the amount of data to be transferred. The rapid growth in the number of subscriptions is also causing data traffic to increase rapidly. Total data traffic from the end of the year until the end of 3rd quarter 2008 was about 1.4 million GB. By comparison, the amount of data the first half of the year was 0.8 million GB.

Non-business subscriptions account for more than 72 per cent of the total data traffic.

4.3 Revenue

Revenues for mobile broadband are also increasing substantially, but less than the number of subscriptions would indicate. The biggest growth in the number of subscriptions is taking place among non-business customers and probably by subscription forms with a relatively low charge per month.

Revenues in 2008 are estimated at nearly NOK 430 million. This is an increase of nearly NOK 170 million compared with 2007.

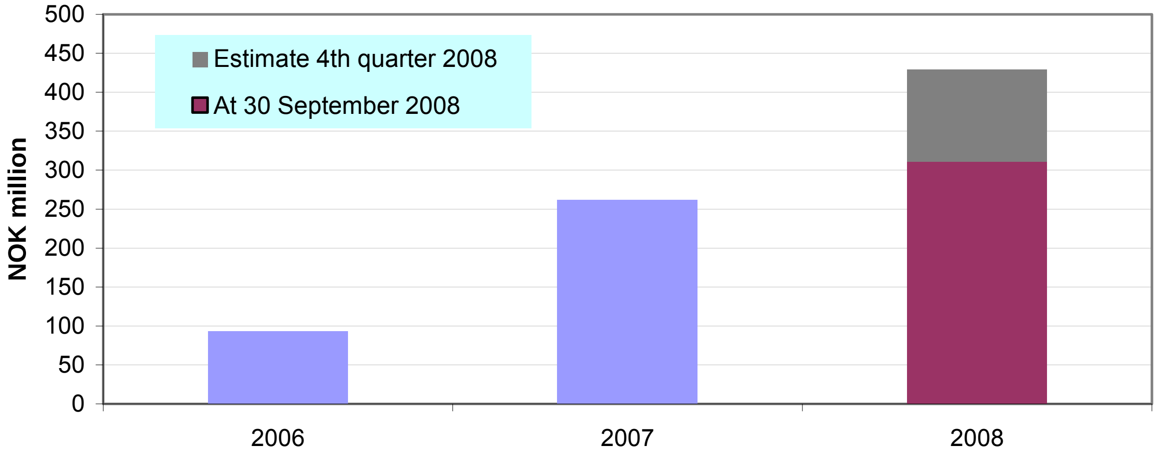

Figure 12 Revenue for mobile broadband subscriptions. Non-business and business subscriptions in all. Figures in NOK million

4.4 Market shares

The total number of mobile broadband subscriptions has increased by 132,500 in the period from the end of 2007 to the end of 3rd quarter 2008. Telenor claimed 72.6 per cent of this growth and has therefore increased its market share from 42.7 per cent at the end of 2007 to 60.7 per cent at the end of 3rd quarter 2008.

NetCom and ICE have claimed 17.4 per cent and 9.1 per cent, respectively, of the growth during the period and both have therefore reduced their market shares measured by number of subscriptions. Other providers accounted for a small share of the market at the end of 3rd quarter 2008.

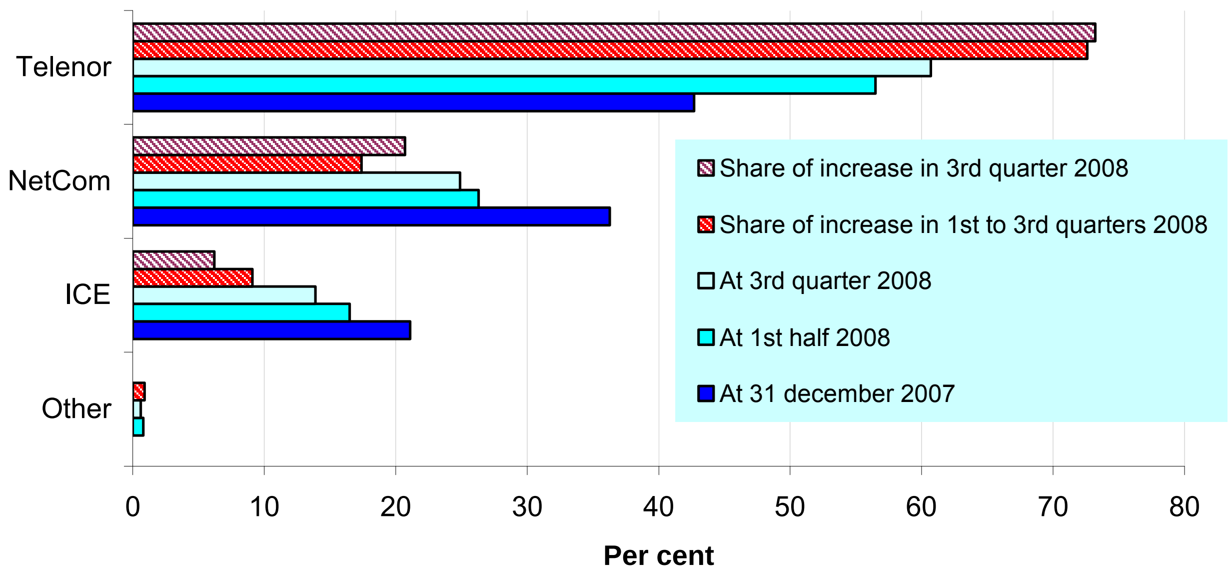

Figure 13 Change in market shares for mobile broadband subscriptions during the period from the end of 2007 to the end of 3rd quarter 2008 and from the end of the first half of 2008 until the end of 3rd quarter 2008. Non-business and business subscriptions in all

During the period from the end of 2007 until the end of 3rd quarter 2008 the increase in non-business subscriptions was 82,800. This represents 62.5 per cent of the total growth during the period. NetCom and ICE took a larger share of non-business as opposed to business subscriptions during this period. The market shares for the three providers in the non-business market are 54.8 per cent for Telenor, 26.1 per cent for NetCom and 18.2 per cent for ICE. Other providers had 0.9 per cent of the non-business subscriptions at the end of 3rd quarter 2008.

Figure 13 also shows the change in market shares in the period from the end of the first half of 2008 to the end of 3rd quarter 2008. Both NetCom and Telenor took a larger share of the growth in the number of subscriptions in this quarter. Telenor claimed 73.2 per cent of the growth, while NetCom took 20.7 per cent. ICE took a smaller portion of the growth, compared with the entire period, namely 6.2 per cent.

5 Fixed broadband[14]

5.1 Subscriptions

In this report broadband means Internet access via fixed broadband connection.

The number of broadband subscriptions at the end of 2008 is estimated at 1,590,000. By comparison, the number at the end of 2007 was about 1,440,000, i.e. an increase of 150,000 over the course of the year. By comparison, the increase in 2007 was more than 195,000 broadband subscribers.

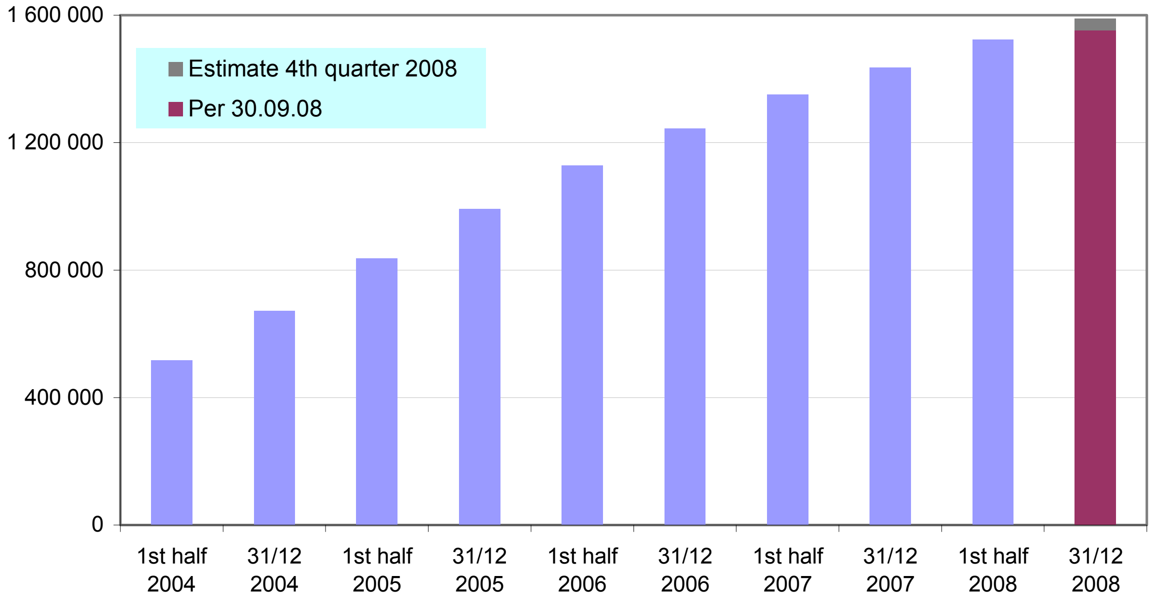

Figure 14 Change in number of fixed broadband subscriptions at the end of the period in question. Non-business and business subscriptions in all

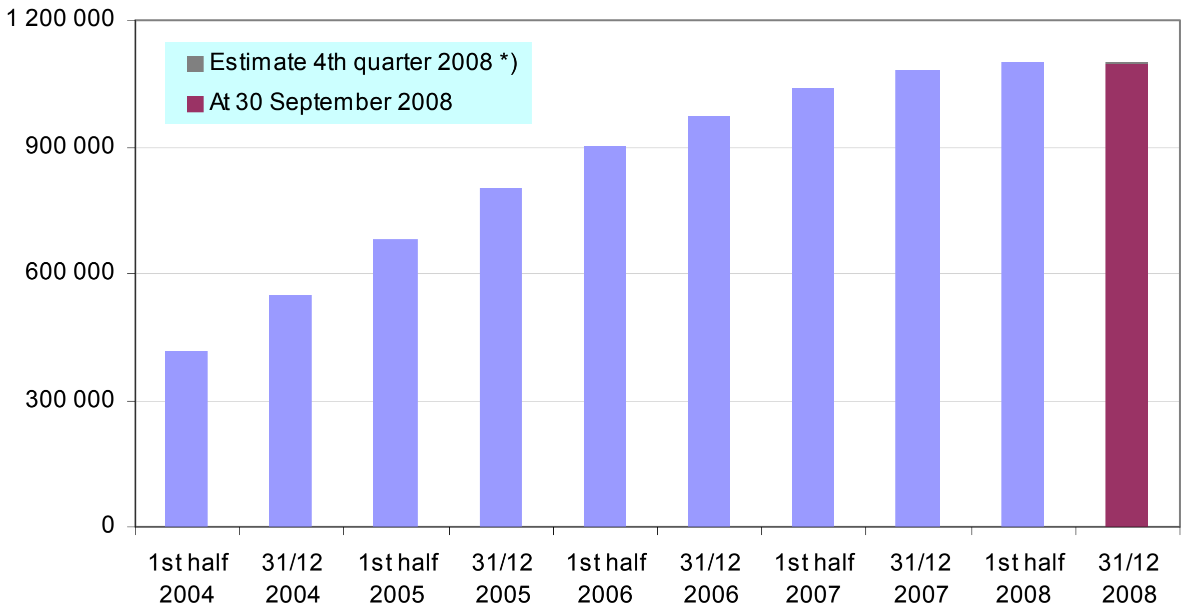

*Figure 15 Change in number of ADSL subscriptions at the end of the period in question. Non-business and business subscriptions in all. *) The increase from 3rd quarter 2008 to the end of 2008 is expected to be insignificant and this field is therefore “invisible” in the figure*

[14] Some numbers in chapter 5.1 and 5.2 have been revised since the issue of 12 December 2008.

NPT obtains statistics for the number of subscriptions divided into the individual access technologies. ADSL is the most widespread, though growth in the number of broadband subscriptions based on this technology has stopped. At the end of 2008 the number of ADSL subscriptions is estimated at 1,099,000, about the same number as at the first half of 2008. By comparison, at the end of 2007 the number was just over 1,081,000.

There is reason to assume that the number of ADSL subscriptions will diminish in 2009.

The number of cable TV and optical fibre-based broadband subscriptions is increasing significantly. At the end of 2008, NPT estimated the number of subscriptions using cable TV as the access technology at about 323,000, while the number based on optical fibre is nearly 149,000. This represents 20.3 per cent and 9.4 per cent, respectively, of the total number of broadband subscriptions.

Cable TV subscriptions are increasing the most. NPT estimates that the number of broadband subscriptions based on cable TV will increase by nearly 86,000 in 2008. The corresponding estimate for optical fibre is just under 51,000.

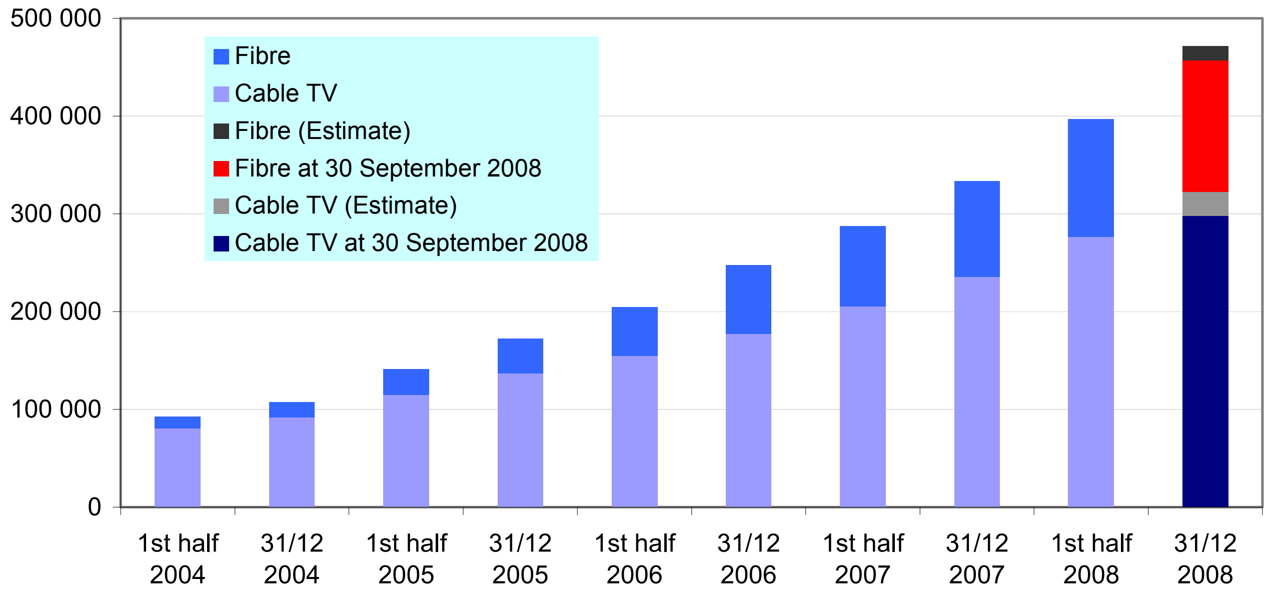

Figure 16 Change in the number of broadband subscriptions based on cable TV and optical fibre. Non-business and business subscriptions in all

NPT collects statistics for the 3rd quarter based on a sample of providers of fixed broadband. Providers who mainly have access solutions other than ADSL, cable TV and fibre are not represented in sufficient numbers in the sample to be able to measure or estimate the scope of these types of solutions. The most important access solution not specifically covered above is fixed broadband via radio.

5.2 Revenue

The change in subscription revenues for fixed broadband is shown in figure 17. Revenues in 2008 are estimated at nearly NOK 6,600 million, an increase of more than NOK 1,100 million compared with 2007. Revenues grew faster than the year before – from 2006 to 2007 revenues increased by nearly NOK 575 million. This can be connected with the fact that there is an increasing share of subscriptions with higher speeds.

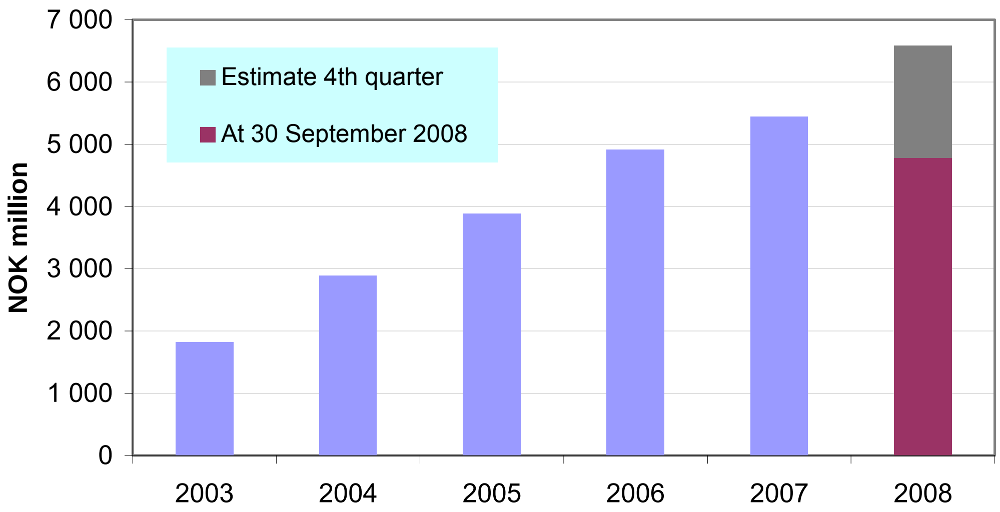

Figure 17 Revenue for fixed broadband subscriptions. Non-business and business subscriptions in all

5.3 Market shares

From the end of 2007 to the end of 3rd quarter 2008 the number of fixed broadband subscriptions increased by about 113,500. Telenor captured 47.3 per cent of this growth in the period. At the end of the 3rd quarter Telenor's market share was 50.3 per cent.

Get claimed 14.5 per cent of the growth during the period, thereby increasing its market share from 6.9 per cent to 7.5 per cent.

NextGenTel is the next largest provider in the market measured by number of subscriptions. Its market share declined from 12.3 to 11.4 per cent. NextGenTel saw a slight decrease in its number of subscriptions during the period.

Around 80 per cent of the increase in Telenor's broadband subscriptions is based on cable TV access. The increase for Get is wholly based on the same technology. Broadband subscriptions for NextGenTel and Tele2 are based on ADSL.

Telenor and Get have 49 and 39 per cent, respectively, of the total number of broadband subscriptions based on cable TV. Lyse Tele[15] had a share of 2.7 per cent of the total broadband market at the end of 3rd quarter 2008, while 31 per cent of the number of broadband subscriptions is based on optical fibre.

[15] Includes the Lyse Tele AS company and does not include partners.

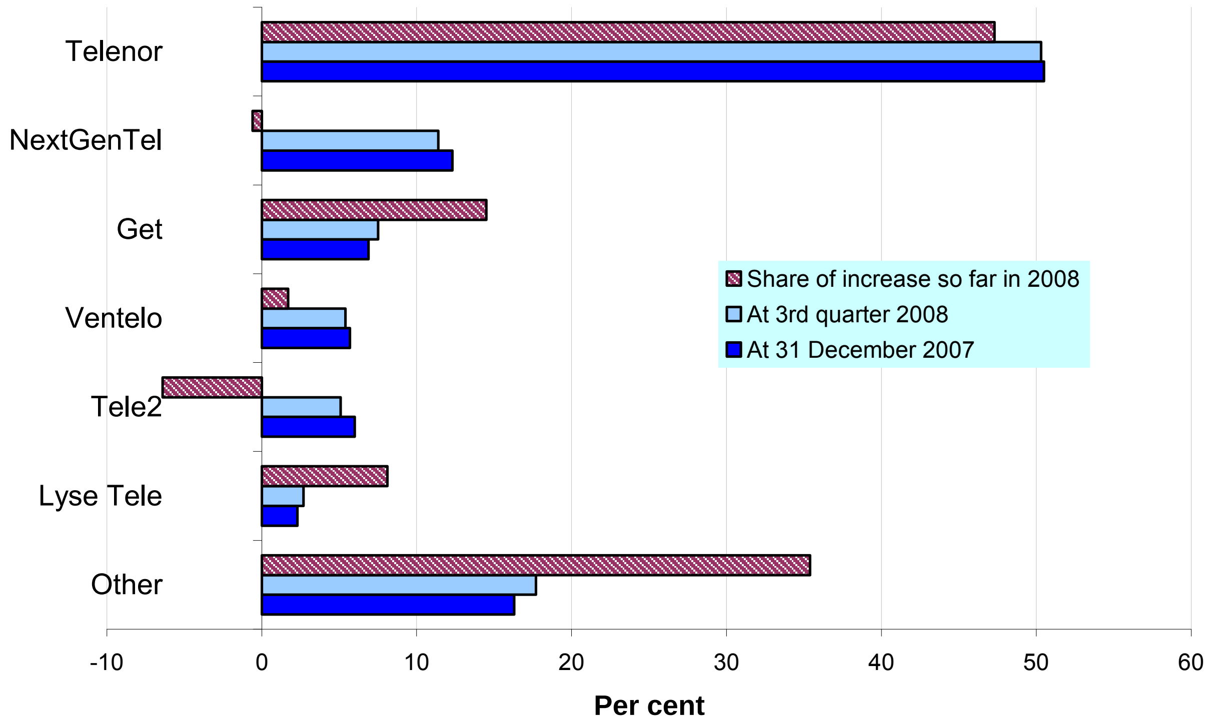

Figure 18 Change in market shares for fixed broadband subscriptions during the period from the end of 2007 to the end of 3rd quarter 2008. Non-business and business subscriptions in all

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