An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Monitoring retail prices of broadband and voice communications services in Ireland

a report by Plum Consulting

Consultant Report

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An Coimisiún um Rialáil Cumarsáide
Commission for Communications Regulation
1 Lárcheantar na nDugaí, Sráid na nGildeanna, BÁC 1, Éire, D01 E4X0.
One Dockland Central, Guild Street, Dublin 1, Ireland, D01 E4X0.
Teil | Tel +353 1 804 9600 Suíomh | Web www.comreg.ie

Regulation 71(1) of the European Union (Electronic Communications Code) Regulations 2022 (“the Regulations”) requires the Commission for Communications Regulation (“ComReg”) to monitor the evolution and level of retail prices of adequate broadband and of voice communications services and to report to the Minster for the Environment, Climate and Communications (“the Minister”) on a regular basis on these matters or when requested by the Minister to do so.

ComReg engaged the services of Plum Consulting to advise ComReg and to produce a report on the evolution and level of retail prices of broadband and voice communications services. This report covers the period Q1 2020 to Q1 2023.

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Monitoring retail prices of broadband and voice communications services in Ireland

October 2023

Plum Consulting

About Plum

Plum offers strategy, policy and regulatory advice on telecoms, spectrum, online and audio-visual media issues. We draw on economics and engineering, our knowledge of the sector and our clients' understanding and perspective to shape and respond to convergence.

About this study

This study for ComReg provides an analysis of the level and evolution of retail prices of broadband packages and voice communications services. The study also assesses the evolution and level of these prices in the context of national consumer prices and consumer income.

Plum Consulting
10 Fitzroy Square
London
W1T 5HP

T +44 20 7047 1919
E info@plumconsulting.co.uk

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Summary

Plum Consulting (Plum) was commissioned by ComReg to carry out an analysis of the level and evolution of retail prices of broadband packages and voice communications services. The scope of the study also includes an analysis of the evolution and level of these prices in the context of wider economic trends: national consumer prices and consumer income.

Data on retail tariffs offered by Irish service providers on their websites was provided by ComReg on a quarterly basis, from the first quarter of 2020 to the present. Additional data used in the study was sourced by Plum from the Central Statistics Office and other sources (noted where used).

Working with ComReg, Plum developed a methodology for the analysis of retail prices. The methodology drew upon several recent studies into communications service pricing.[1] A key feature of the methodology is the definition of service baskets, covering a range of different user requirements and consumption patterns. Drawing upon on the industry standard baskets developed by the OECD, four fixed voice service baskets, five fixed broadband service baskets, and two mobile voice service baskets were specified (Figure 1). The definition of these service baskets is discussed in more depth in Section 2.2 of this report.

Figure 1: Service baskets used in the analysis

Service Basket	Details	Basket Code
Fixed Voice – Low Usage	20 total calls/month	FV1
Fixed Voice – Medium Usage	60 total calls/month	FV2
Fixed Voice – High Usage	140 total calls/month	FV3
Fixed Voice -– Very High Usage	420 total calls/month	FV4
Fixed Broadband – Low	>10 Mbps, >30 GB/month data	FBB1
Fixed Broadband – Medium	>25 Mbps, >60 GB/month data	FBB2
Fixed Broadband – High	>100 Mbps, >120 GB/month data	FBB3
Fixed Broadband – Very High	>250 Mbps, uncapped	FBB4
Fixed Broadband – >1 Gbps	>1 Gbps, uncapped	FBB5
Mobile Voice – Low Usage*	30 mobile voice minutes, >10 SMS	MV1
Mobile Voice – Medium Usage*	100 mobile voice minutes, >40 SMS, >0.5 GB data	MV2

For each service basket, we identified, on a quarterly basis:

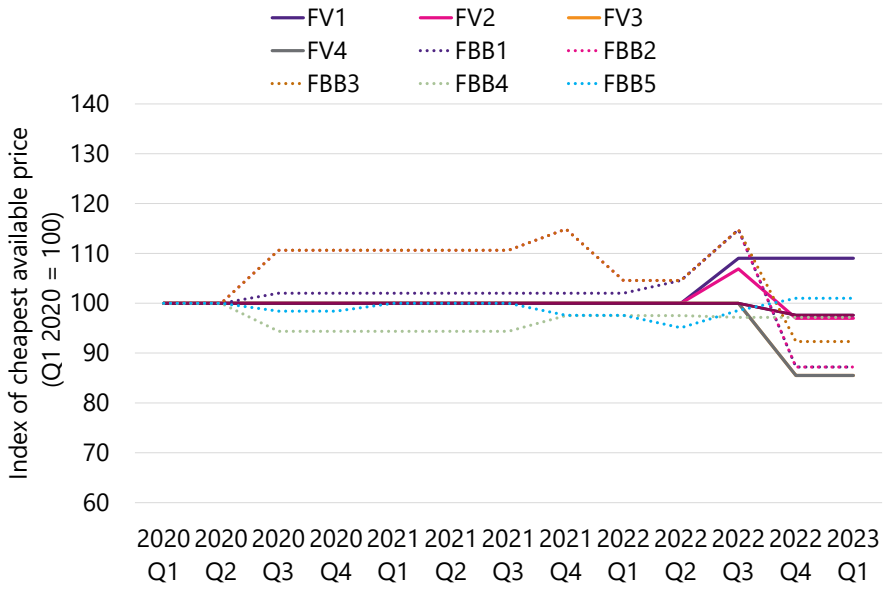
- the price of the cheapest package meeting each service basket's requirements offered by each service provider in scope of the analysis;
- for each service basket, the cheapest package overall; and
- the weighted average price of the cheapest compliant package offered by each service provider, weighted by service providers' market share.

[1] The studies reviewed in the report include studies by the European Commission (2022), BEREC (2018), the OECD (2017), the ITU (2021) and Ofcom (2022). Discussion of these studies and associated references can be found in Section 2 of the report.

The price analysis represents an aggregated monthly price which incorporates recurring monthly fees, installation fees, promotional discounts, and usage or overage fees based on the usage patterns defined in the service bundles. Nonrecurring fees (such as installation fees) are pro-rated across the typical customer lifetimes. Further information is available in Section 2.2 of this report.[2]

Figure 2 charts the evolution of the cheapest available price on the market for each service basket (from any service provider). These are shown separately for each service in the main part of this report.

Figure 2: Evolution of cheapest available prices for each service basket

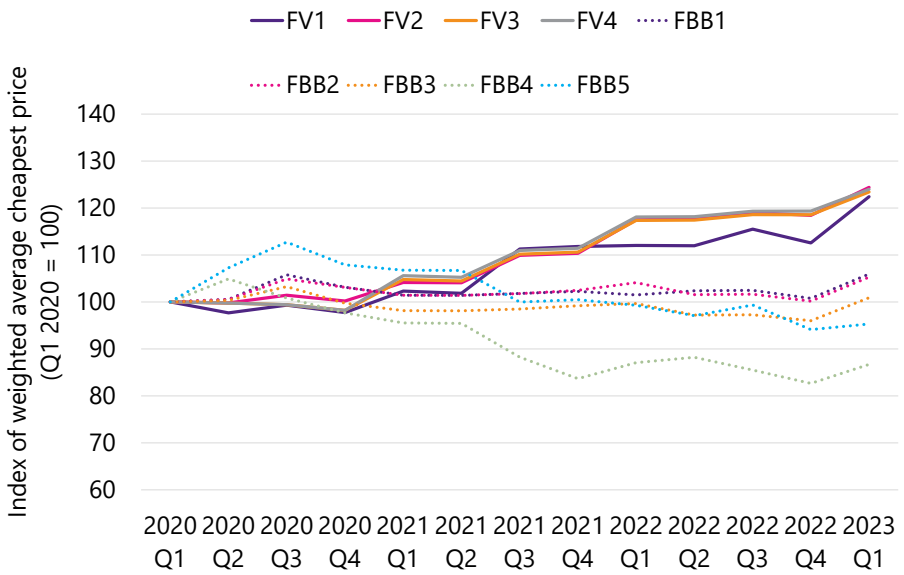


For most of the defined service baskets, the cheapest available prices are relatively steady over time, ending the periods (Q1 2020 through Q1 2023) at a similar or lower level to the start of the period. The main exceptions are lower-usage fixed voice services (FV1) which saw a relative increase. Standalone services typically represent the cheapest route to obtaining a low-usage fixed voice service basket, however it should be noted that mobile voice services still represent the cheapest avenue to obtaining voice communications services, with the cheapest packages around a quarter of the price of corresponding fixed voice services. Most fixed broadband service baskets saw nominal price decreases over the period, with the exception of gigabit services (FBB5).

Figure 3 shows the evolution of the weighted average of cheapest prices. Compared to the price of the cheapest price available (which is often offered by challenger providers with small market share), the weighted average price is likely to offer a closer approximation to the price typically paid by consumers.

[2] For the avoidance of doubt, the prices reflect the advertised prices only. It specifically excludes any CPI + X automatic annual tariff increase which may be imposed on those customers who are already in contract with a service provider

Figure 3: Evolution of the cheapest available price from each provider, weighted by market shares

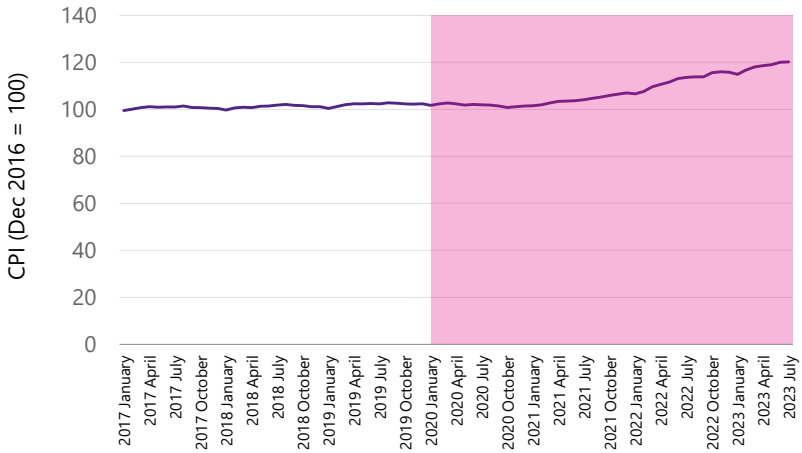


When considering the weighted average of cheapest prices, we can observe a general increase in the price of all fixed voice service baskets over time. This is likely because the cheapest available fixed voice services are generally standalone services offered by challenger providers, while several major providers no longer market standalone voice services (instead only offering fixed voice as part of a larger bundle). The increase in fixed voice prices thus likely reflects the prices of bundled services including fixed voce, rather than fixed voice per se.

The weighted average of fixed broadband prices appears steady, with a minor increase in the price of lower speed services toward the end of the analysis period. Of note here is that the price of higher speed services (FBB4/FBB5) have trended downward over the modelling period in nominal terms, which is likely to reflect more aggressive discounting of these services compared to lower-speed services.

The evolution of these prices should be considered against the broader trend in consumer prices. Here we observe a backdrop of general price rises, with the consumer prices index (CPI) rising around 15% over the analysis period. While this suggests that communication services pricing has not increased at the same rate as consumer prices in general, it should be noted that our analysis is based on advertised pricing and does not account for within-contract inflation-linked price increases.

Figure 4: CPI over time (Dec 2016 = 100) (review period highlighted)



In general, income growth has been relatively robust across all income deciles in Ireland over the past 10 years. The data indicate a period of convergent growth over the past 10 years, where incomes at the bottom of the income distribution have grown at a faster rate than those at the middle or top. Over the analysis period (2020-2023), median household disposable income[3] has grown by around 7% - a faster rate than prices for the majority of the service baskets considered.

	2020	2021	2022	Growth
Median nominal household disposable income	€43,915	€46,471	€46,999	7.0%
Mean nominal household disposable income	€52,941	€54,746	€56,486	6.6%

Source: CSO. https://www.cso.ie/en/releasesandpublications/ep/p-silc/surveyonincomeandlivingconditionssilc2022/householdincome/

However, the longer-term trend in income growth masks some recent stagnation in income among lower income deciles. The bottom three income deciles experienced little to no growth from 2021 to 2022. If continued, this stagnation could imply increases in the proportion of the household budget spent on communications services. As of Q1 2023, we estimate that the cheapest fixed voice and/or fixed broadband service could cost around 3% of monthly income for households at the bottom income decile (typically the incremental cost to buy both services as part of a bundle is small).

In regard to income and price trends, it is worth noting that:

- while prices are increasing below the rate of inflation, the bottom three income deciles experienced little to no growth from 2021 to 2022. If continued, this stagnation could imply increases in the proportion of the household budget spent on communications services;
- there is a general increase in the weighted average cheapest price of all fixed voice service baskets over time, however traditional fixed voice services are now generally sold as part of a bundle, and only challenger providers are offering standalone fixed voice products. In recent quarters, bundled services have been the cheapest route to obtaining a fixed voice service; and
- in contract CPI + X automatic annual tariff increases may be imposed on those customers who are already in contract with a service provider (and are not covered in this report).

[3] The CSO defines disposable household income as gross household income less total tax, social insurance contributions, pension contributions and inter-household transfers paid. Refer to: https://www.cso.ie/en/releasesandpublications/ep/p-silc/surveyonincomeandlivingconditionssilc2022/householdincome/

1 Introduction

Plum Consulting (Plum) was commissioned by ComReg to carry out an analysis of the level and evolution of retail prices of:

- broadband packages (including fixed and wireless services); and
- voice communications services (including fixed and mobile services).

The scope of the study also included an analysis of the evolution and level of these prices in relation to:

- national consumer prices; and
- consumer income.

ComReg provided retail pricing data on a range of fixed and mobile voice tariffs and fixed and mobile broadband tariffs from Irish service providers, from Q1 2020 to present. Additional data used in the study was sourced by Plum from the Central Statistics Office and other sources (noted where used). While both fixed and mobile services are in scope of the study, the core focus of the study is on the prices of voice communications services and fixed broadband services.

The remainder of this report is set out as follows:

- Section 2 provides an overview of the methodology used in the study;
- Section 3 charts the evolution of fixed voice and fixed broadband service pricing in Ireland;
- Section 4 compares trends in communications service pricing to broader trends in consumer prices and income; and
- Appendix 1 charts the evolution of mobile service pricing in Ireland.

2 Methodology

2.1 Summary of recent studies into communications service pricing

In developing our approach, we referred to various other recent studies assessing communications service retail pricing:

- The European Commission carries out a study of mobile and fixed broadband prices in Europe.[4] The study follows BEREC's guidelines in defining service baskets.[5] For all Member States of the EU the study covered at least 90% of the overall national fixed broadband market. For each service basket, the lowest cost published offer was then identified.

- The OECD has developed a set of methodologies for comparing retail prices of telecommunication services across different countries.[6] The methodologies are based on a "basket" approach where a consumption pattern is described for different types of users. For fixed voice, only the incumbent operator is considered; for fixed broadband, the top three providers in each country are included (with a combined market share of at least 70%). The lowest cost offer is then calculated for each operator and basket. The basket parameters – including elements such as the call destination distribution (summarised in Figure 2.1) and call durations – are specified in the report.

- The ITU has defined a methodology for the collection of retail price data. As of 2021 it had introduced five ICT price baskets.[7] The baskets are largely focused on mobile services and do not include fixed voice. Only one basket includes fixed broadband: this basket is based on services with a minimum speed of 256 kbps and monthly data usage of at least 5 GB. The analysis is based on the prices of the operator with the largest market share (measured by the number of fixed-broadband subscriptions), and the cheapest compliant offer is selected.

- The UK telecommunications regulator Ofcom carried out a recent study into retail pricing trends in the UK.[8] The study constructed five household types and defined a communications usage profile for them. It then identified the cheapest tariffs for meeting the requirement of each household type.

A summary of the 'service baskets' used in the studies for fixed voice and fixed broadband services is provided below. Note that the ITU and the European Commission studies do not assess the prices of fixed voice communications services.

[4] European Commission (2022). Mobile and Fixed Broadband Prices in Europe in 2021. Available at: https://digital-strategy.ec.europa.eu/en/library/mobile-and-fixed-broadband-prices-europe-2021
[5] BEREC (2018). European Benchmark of the pricing of bundles – methodology guidelines. Available at: https://www.berec.europa.eu/sites/default/files/files/document_register_store/2018/10/BoR_%2818%29_171_BEREC_Bundles_Price_methodology.pdf
[6] OECD (2017). Revised OECD telecommunication price baskets. https://one.oecd.org/document/DSTI/CDEP/CISP(2017)4/FINAL/En/pdf [OECD 2017]
[7] ITU (2021). ITU price data collection methodology. https://www.itu.int/en/ITU-D/Statistics/Documents/publications/prices2021/ITU_ICT_Prices_Methodology.pdf
[8] Ofcom (2022). Pricing trends for communications services in the UK. Available at: https://www.ofcom.org.uk/__data/assets/pdf_file/0029/248546/pricing-trends-in-UK-Communications-services-report.pdf

Figure 2.1: OECD fixed voice communications service basket volumes and call destination distribution

Basket	Total calls	Local	National	F2M
OECD 20 calls fixed	20	61%	20%	19%
OECD 60 calls fixed	60	60%	15%	25%
OECD 140 calls fixed	140	58%	15%	27%
OECD 420 calls fixed	420	73%	17%	10%
OECD 100 calls fixed business	100	48%	19%	33%
OECD 260 calls fixed business	260	43%	23%	34%

Source: OECD (2017).

Figure 2.2: Fixed broadband download speed baskets used in reviewed pricing studies

	OECD	European Commission	ITU	Ofcom
FBB Basket 1	256 Kbps 15 GB/month data	4-12 Mbps*	256 Kbps 5 GB/month data	≥30 Mbps 25 GB/month data
FBB Basket 2	10 Mbps 30 GB/month data	12-30 Mbps*	N/A	≥100 Mbps 1,000 GB/month data
FBB Basket 3	25 Mbps 60 GB/month data	30-100 Mbps*	N/A	≥300 Mbps 500 GB/month data
FBB Basket 4	100 Mbps 120 GB/month data	100-200 Mbps*	N/A	N/A
FBB Basket 5	1 Gbps 300 GB/month data	>200 Mbps*	N/A	N/A

Note: * denotes baskets without a data cap. OECD data allowances represent 'Medium' usage volume, as this is the only volume included in published OECD results.

2.2 The methodology employed in this study

2.2.1 Service baskets used in the analysis

The first aspect of the methodology to be addressed is the definition of service baskets.

The baskets used in this analysis are outlined in Figure 2.3. These are largely (but not wholly) based on the OECD's defined baskets, which offer the most detailed breakdown of fixed voice baskets. Note that the OECD's fixed broadband speed tiers are broadly similar to those used in the European Commission's 2022 analysis of broadband prices in Europe. To better understand the evolution of prices of higher-speed broadband services, we have added a 250 Mbps fixed broadband service basket (FBB4).

Figure 2.3: Service baskets used in this analysis

Service Basket	Details	Basket Code
Fixed Voice – Low Usage	20 total calls/month	FV1
Fixed Voice – Medium Usage	60 total calls/month	FV2
Fixed Voice – High Usage	140 total calls/month	FV3
Fixed Voice – Very High Usage	420 total calls/month	FV4
Fixed Broadband – Low	>10 Mbps, >30 GB/month data	FBB1
Fixed Broadband – Medium	>25 Mbps, >60 GB/month data	FBB2
Fixed Broadband – High	>100 Mbps, >120 GB/month data	FBB3
Fixed Broadband – Very High	>250 Mbps, uncapped	FBB4
Fixed Broadband – >1 Gbps	>1 Gbps, uncapped	FBB5
Mobile Voice – Low Usage*	30 mobile voice minutes, >10 SMS	MV1
Mobile Voice – Medium Usage*	100 mobile voice minutes, >40 SMS, >0.5 GB data	MV2

Note: Fixed broadband speeds reflect headline (advertised) download speeds. The majority of fixed broadband packages available in Ireland currently appear to be uncapped. However, for comparability with the OECD we retain the data caps in the service basket definitions.
* Mobile voice packages are discussed in Appendix A; the focus of the main report is Fixed Voice and Fixed Broadband.

For fixed voice services, our analysis employs the same service basket parameters set out by the OECD. This includes call destination distribution, time of day distribution and call durations.[9]

2.2.2 Service providers within scope of this analysis

This analysis includes services offered by any service provider with a market share of greater than 2%, as identified in ComReg's Quarterly Key Data Reports (QKDR).[10]

[9] OECD (2017).
[10] Quarterly Key Data Reports collate key data on Ireland's communications market. The reports are available on ComReg's website: https://www.comreg.ie/industry/electronic-communications/market-information/quarterly-key-data-report/

2.2.3 Methodological approach

For each service basket, we identify:

- the price of the cheapest package meeting each service basket's minimum requirements,[11] for each service provider in scope of the analysis;
- for each basket, the cheapest package overall; and
- the weighted average price of the cheapest compliant package offered by each service provider, weighted by providers' market share.

Note that we do not have data on the number of customers on each particular package or tariff.

As the cheapest price available on the market is often offered by challenger providers with small market share, the weighted average price is likely to offer a closer approximation to the price typically paid by consumers (relative to a simple/unweighted average of prices). However, it will almost certainly underestimate the average prices paid, as many consumers will not be on the cheapest tariff offered by their provider.

The *price* used in the analysis represents an aggregated monthly price which incorporates:

- monthly fees;
- one-off installation fees and other charges;
- promotional discounts (for example, a price discount for the first 12 months of a 24 month contract); and
- usage and overage fees based on the usage patterns defined in the service bundles and relevant charges.

Nonrecurring fees (such as installation fees) are pro-rated across the typical customer lifetimes as defined by the OECD: 5 years for fixed voice services, 3 years for fixed broadband and mobile voice services. Usage patterns are similarly based on OECD definitions.[12] Note that all prices include VAT.

The analysis considers both standalone services and bundles. For example, if the cheapest way of obtaining a fixed voice communications service is by purchasing a fixed voice and broadband bundle, that is the price used in the analysis. In this respect we assume that consumers are rational and are able to access all relevant information about their usage requirements and available packages. When assessing fixed voice services, we additionally consider the price of standalone fixed voice communication services (fixed voice-only connection and voice communications services).

2.2.4 Source data used in the analysis

The primary source data used in the analysis was provided by ComReg, based on data collated by pricing consultancy Teligen, Strategy Analytics. The provided datasets show, on a quarterly basis starting in Q1 2020, the advertised prices for fixed voice, mobile voice, fixed broadband and mobile broadband services available in

[11] Note that the service basket requirements represent minimum requirements. For example, a 100 Mbps fixed broadband service would be an eligible product for consideration for the FBB1 basket.
[12] OECD (2017).

Ireland. The information includes promotional discounts, nonrecurring charges, usage limits and relevant usage-related charges which enables the computation of an aggregated monthly price (refer to Section 2.2.3).

In order to compare trends in communications service pricing to wider economic trends, we draw upon publicly data from Ireland's Central Statistics Office (CSO), data from the European Statistical Office (Eurostat) and supporting research (noted when used).

3 The evolution of communications service pricing in Ireland

3.1 Fixed voice communications services

The service baskets used in the analysis of fixed voice service prices are shown in Figure 3.1.

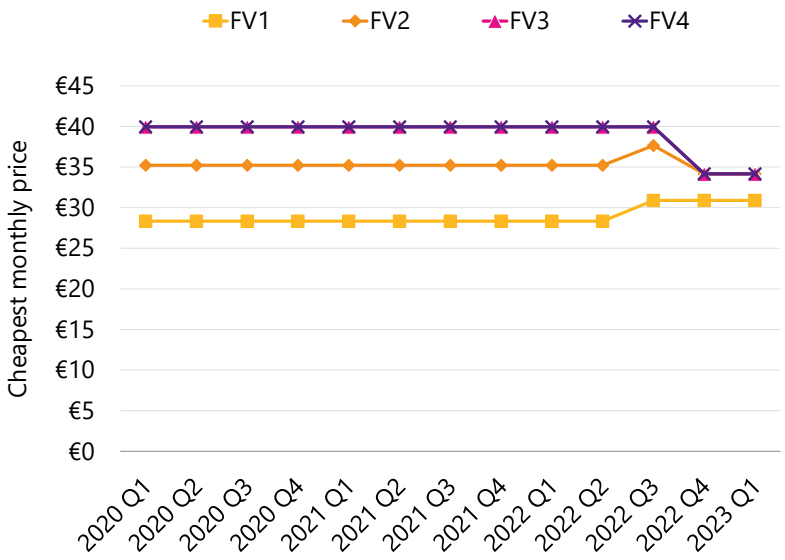
Figure 3.1: Fixed voice service baskets used in this analysis

Service Basket	Details	Basket Code
Fixed Voice – Low Usage	20 total calls/month	FV1
Fixed Voice – Medium Usage	60 total calls/month	FV2
Fixed Voice – High Usage	140 total calls/month	FV3
Fixed Voice – Very High Usage	420 total calls/month	FV4

The prices of the cheapest available service (within each service basket) are shown in Figure 3.2. The prices indicate the cheapest possible route to obtaining the fixed voice service basket, which can include purchasing as part of a bundle. The data indicate that the price of the cheapest fixed voice services on the market have remained relatively steady over time in nominal terms. Throughout the modelling period, the cheapest services were offered by challenger providers. Note all prices include VAT.

Note that the price of FV3 and FV4 service baskets mirror each other – at this level of usage the cheapest route to obtaining the service is to buy an unlimited service (or a service with a very high allowance). The fall in the latest two quarters of the price of FV2/FV3/FV4 baskets was driven by the introduction of a fixed voice/fixed broadband bundle from Imagine.

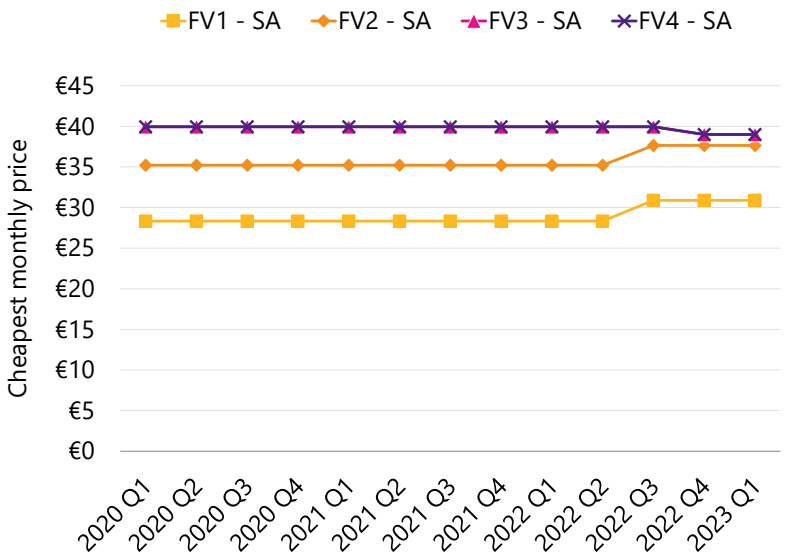
Figure 3.2: Cheapest available fixed voice packages



For each service basket, we have also tracked the prices of the cheapest available 'standalone' fixed voice services – meaning fixed voice-only connection and voice communications service. These are shown as dashed lines with the "SA" designation. Note that the data indicate that two major providers (Sky and Vodafone) stopped marketing standalone fixed voice services in 2021.

For most of the assessment period, standalone services represent the cheapest route to obtaining fixed voice services. However, a recent introduction of a fixed voice and broadband bundle has seen the price of the cheapest bundled services fall below that of standalone services in the most recent quarters.

Figure 3.3: Cheapest available fixed voice standalone services



The weighted cheapest prices for fixed voice services (weighted by provider market share) are shown in Figure 3.9. These data suggest, in contrast to Figure 3.2, that the price of fixed voice services have been rising over time. This reflects that the cheapest prices for fixed voice services are offered by providers with very small market shares (see Figure 3.5). Given that major providers appear to have stopped marketing standalone fixed voice services, Figure 3.4 is more likely to represent the prices paid for bundled services over time.

Figure 3.4: Cheapest prices weighted by provider market share

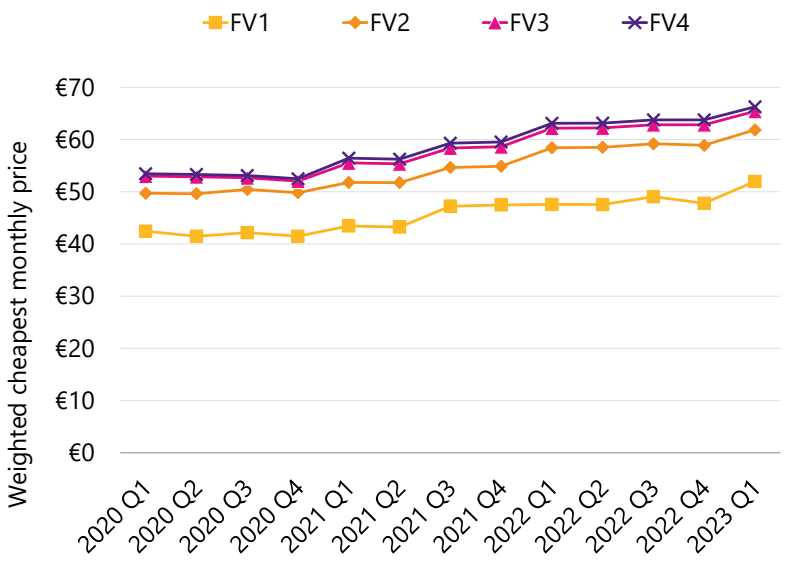
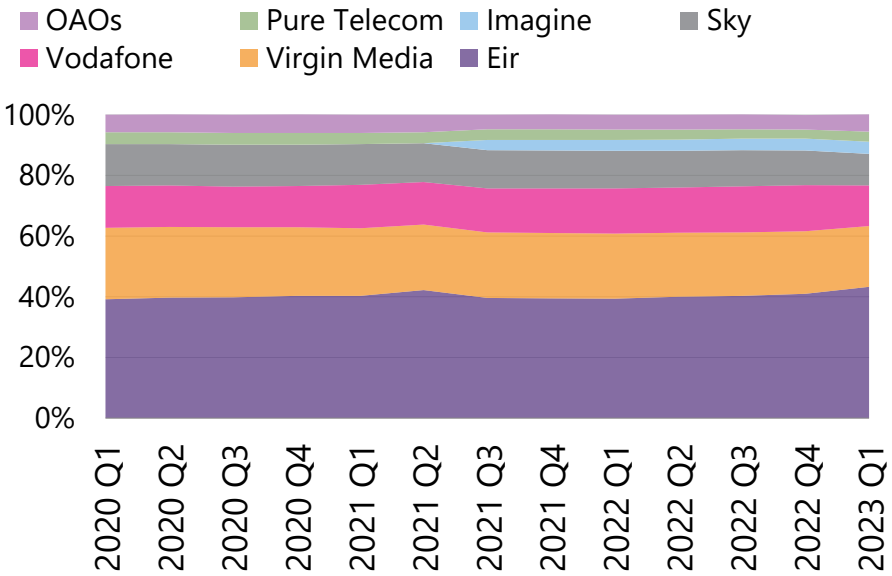


Figure 3.5: Fixed voice market shares over time by subscriber lines



Note: OAOs refer to Other Authorised Operators. Source: ComReg QKDR reports.

3.2 Fixed broadband services

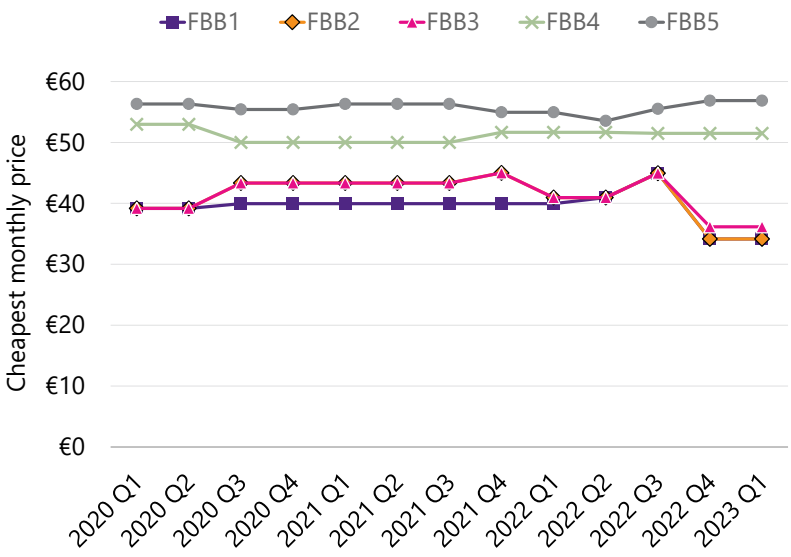
The service baskets used in the analysis of fixed broadband prices are shown in Figure 3.6.

Figure 3.6: Fixed broadband service baskets used in this analysis

Service Basket	Details	Basket Code
Fixed Broadband – Low	>10 Mbps, >30 GB/month data	FBB1
Fixed Broadband – Medium	>25 Mbps, >60 GB/month data	FBB2
Fixed Broadband – High	>100 Mbps, >120 GB/month data	FBB3
Fixed Broadband – Very High	>250 Mbps, >300 GB/month data	FBB4
Fixed Broadband – >1 Gbps	>1 Gbps, uncapped	FBB5

The prices of the cheapest available packages on the market within each service basket are shown in Figure 3.7. The data indicate that, in nominal terms, fixed broadband prices have been relatively constant over time. Note that the prices of <250 Mbps baskets (FBB1, FBB2, FBB3) have tracked each other closely over time. This appears to be driven by two trends: competitive pricing and offers on 100 Mbps services, and the apparent withdrawal of lower speed services from the market. In regard to the latter, the most recent available data indicate that several providers no longer market packages below 100 Mbps. However, it is worth noting that this trend does not appear to have led to overall price increases in the cheapest available fixed broadband packages.

Figure 3.7: Cheapest available fixed broadband packages



The cheapest prices in the fixed broadband market are frequently offered by challenger providers, with the price decrease in FBB1/FBB2/FBB3 services recent quarters driven by the introduction of a new bundled offer. Collectively, such providers represent a relatively small proportion of the market (Figure 3.8) – so most consumers will not be paying these prices.

Figure 3.8: Fixed broadband market share, by subscriber lines

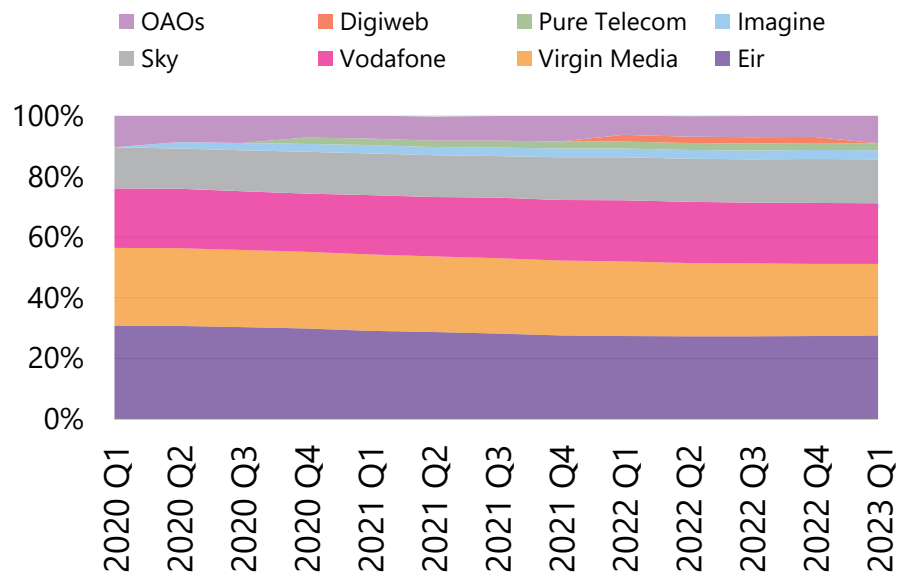
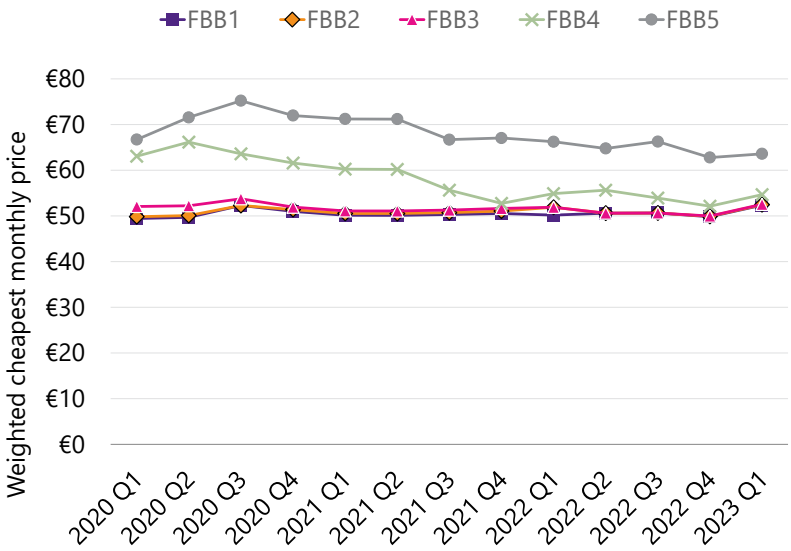


Figure 3.9 shows the weighted average of the cheapest price from each operator. This is likely to be more representative of the prices typically paid for fixed broadband services (although likely to underestimate what consumers are actually paying as many consumers will not be on the cheapest possible tariff).

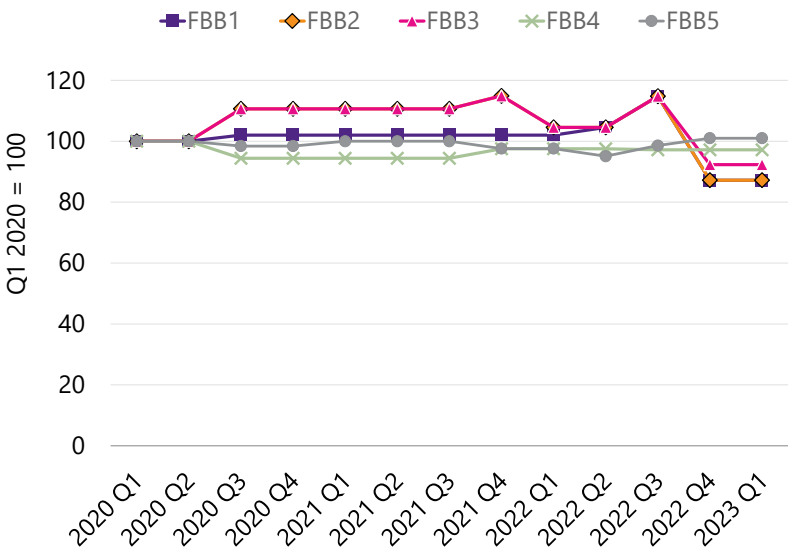
Figure 3.9: Cheapest price weighted by operator market share



Several trends are apparent from this analysis. First, the weighted price of ≤250 Mbps baskets (FBB1, FBB2, FBB3) has remained steady (in nominal terms) throughout the period. Second, the gap between the price of <250 Mbps baskets and >250 Mbps higher speed services has narrowed over time. This appears to be largely driven by comparatively greater discounting of such services by the major providers.

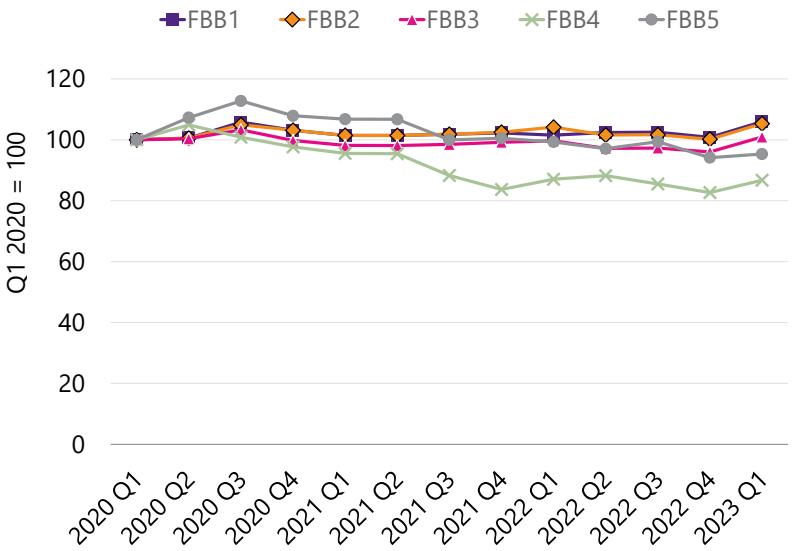
Compared to the start of the period, the price of the cheapest available fixed broadband services at the end of the period are similar to or lower than at the start of the period (Figure 3.10).

Figure 3.10: Index of the cheapest available fixed broadband price, by service basket (Q1 2020 = 100).



By contrast, when the weighted average cheapest price is examined, the data indicate the weighted average price of FBB1/FBB2 services is around 5% higher than at the start of the period.

Figure 3.11: Index of the weighted average of cheapest available fixed broadband prices, by service basket (Q1 2020 = 100).

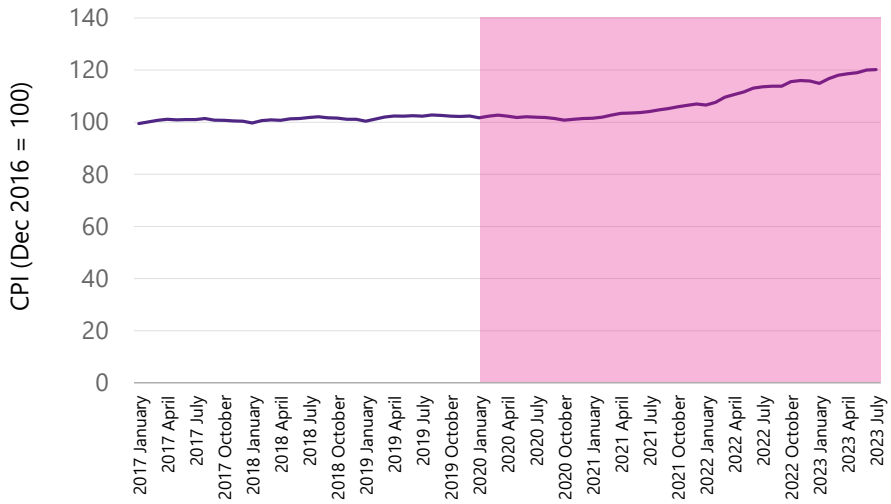


4 Comparing trends in communications service pricing to consumer prices and income

4.1 Trends in national consumer prices and consumer incomes

The Consumer Prices Index (CPI) measures the overall change in the prices of goods and services in Ireland.[13] The evolution of the CPI since 2016 is shown in Figure 4.1. The data indicate that inflation has risen over the review period, with consumer prices at time of publication almost 20% higher than 2020.

Figure 4.1: CPI over time (Dec 2016 = 100) (review period highlighted).



Source: CSO

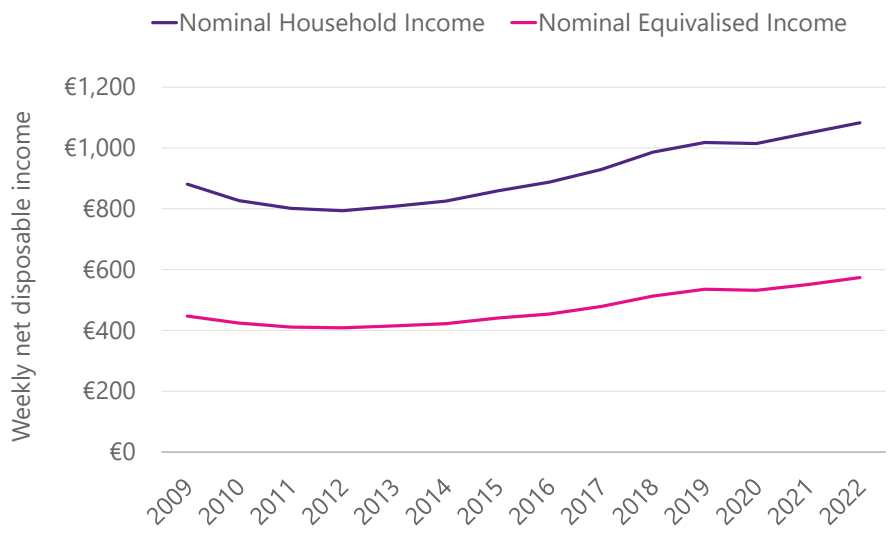
The CSO reported that, as of 2022, the median nominal disposable income[14] of Irish households was €46,999, representing an increase of 1.1% from the prior year.[15] Broadly speaking, the average net household income has grown over the past ten years (Figure 4.2).

[13] For further information on the CPI, refer to the CSO website: https://www.cso.ie/en/interactivezone/statisticsexplained/consumerpriceindex/whatisthecpi/#d.en.44775

[14] Disposable household income is gross household income less total tax, social insurance contributions, pension contributions and inter-household transfers paid.

[15] https://www.cso.ie/en/releasesandpublications/ep/p-silc/surveyonincomeandlivingconditionssilc2022/householdincome/

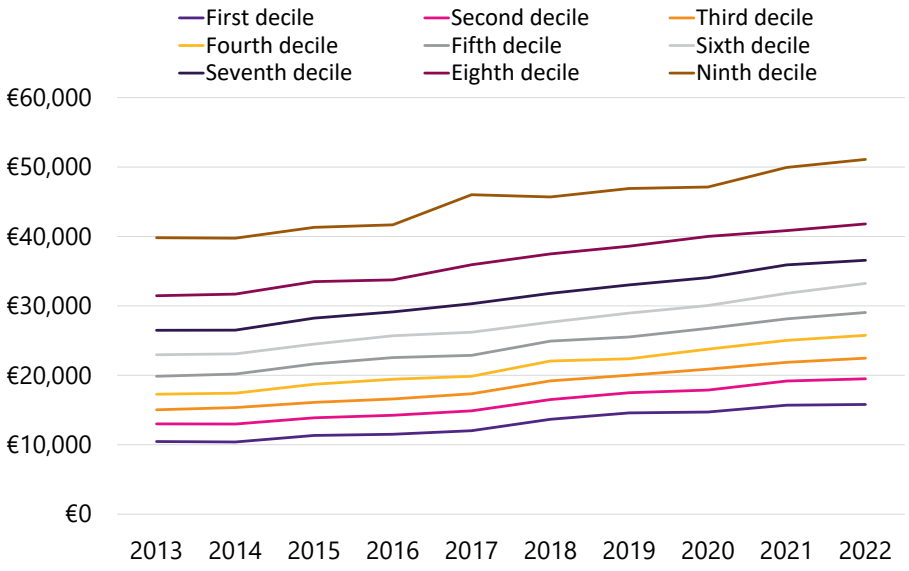
Figure 4.2: Weekly net disposable income over time (household and equivalised)



Source: Survey of Income and Living Conditions (SILC). Note that equivalised disposable household income is divided by the equivalised household size to calculate equivalised disposable income for each person.

In general, income growth has been robust across all income deciles in Ireland over the past 10 years. The data indicate a period of convergent growth over the past 10 years, where incomes at the bottom of the income distribution have grown at a faster rate than those at the middle or top (Figure 4.3). In consequence, over this longer period there was a fall in measures of income inequality. However, according to a recent report on poverty and income inequality in Ireland, 2021 saw disposable incomes fall or stall for those in the bottom half of the income distribution, while measures of income inequality increased.[16]

Figure 4.3: Household net income by decile, over time (lines represent top cut-off point of each decile)

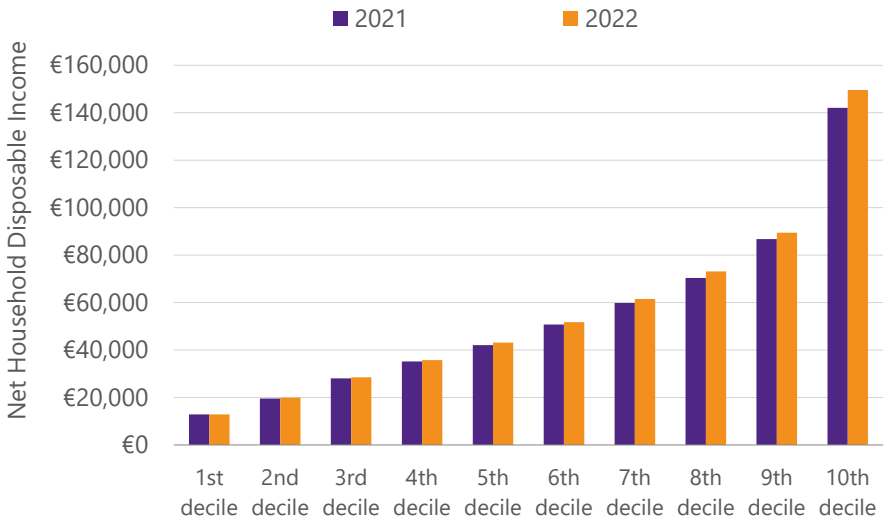


Source: Eurostat, SILC surveys.

[16] https://www.esri.ie/system/files/publications/JR4_6.pdf

This recent stagnation in incomes among the lower deciles can be observed in the recent data (Figure 4.4). The bottom three income deciles experienced little to no growth form 2021 and 2022, while the top deciles saw increases (note this chart reflects averages across deciles, rather than the top-cut off point).

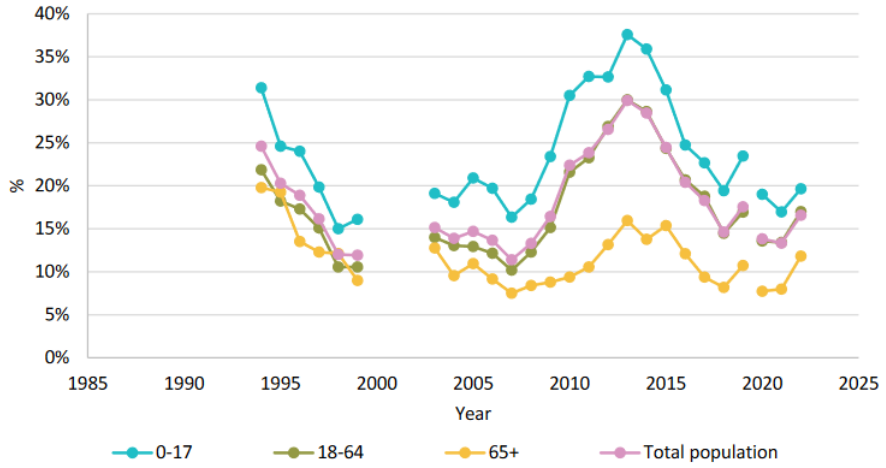
Figure 4.4: Net household disposable income by decile, 2021 vs. 2022



Source: CSO

The stagnation of incomes in the lower deciles has led to a recent increase in the measured rate of material deprivation, albeit still at a rate lower than earlier time periods. In this context deprivation is defined as being unable to afford two or more items from a list of ten essentials.

Figure 4.5: Material deprivation rate by age group, 1994-2022



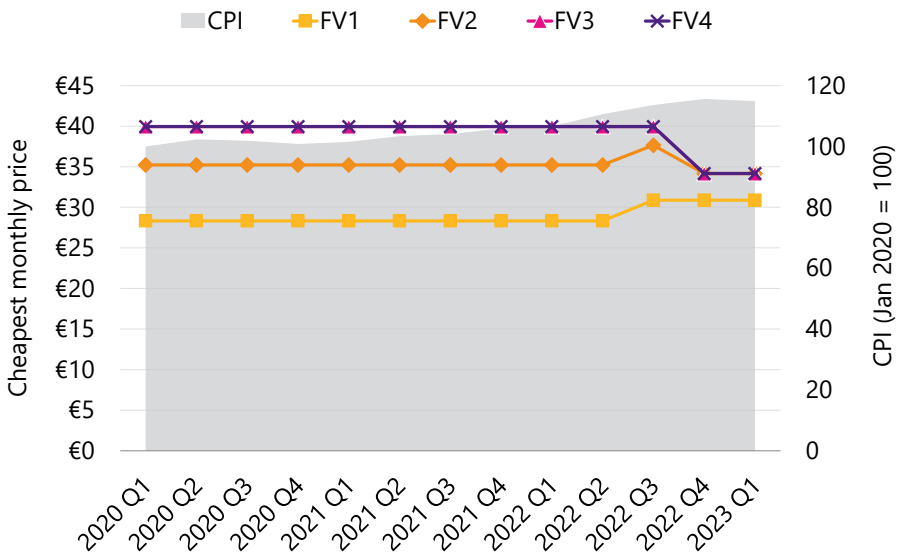
Source: Roantree and Doorley (September 2023). Poverty, income inequality and living standards in Ireland: Third Annual Report. https://www.esri.ie/system/files/publications/JR4_6.pdf

4.2 Comparing macroeconomic trends with trends in communications service pricing

We first compare communications service pricing with trends in consumer prices. A general trend is that, across the service baskets, communications services prices appear to have risen more slowly than consumer prices. Whereas consumer prices have increased by almost 15% since the start of 2020, the price of the cheapest available fixed voice services and fixed broadband services have remained relatively steady in nominal terms.

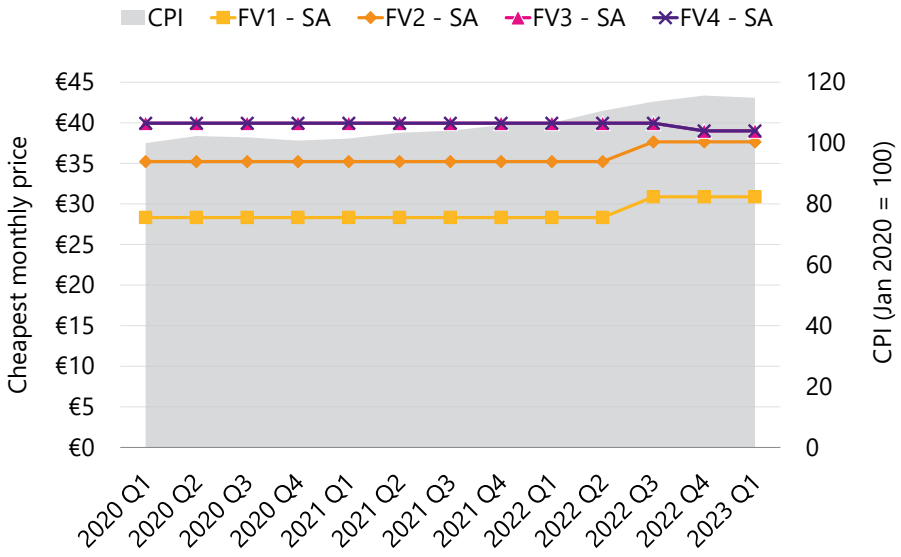
The pricing data presented here reflects advertised prices available to new customers. As such it does not include within-contract inflation-linked price rises (where customers face CPI+ price increases within their contract). In consequence, while the cheapest available advertised prices for the service baskets have risen more slowly than CPI, some existing customers may be experiencing (or may be due to experience) above-inflation price increases. We do not have sufficient information to assess this phenomenon in this report but it is worth noting that the picture may be different for customers in longer contracts.

Figure 4.6: Fixed voice service pricing (including bundled packages) vs. CPI



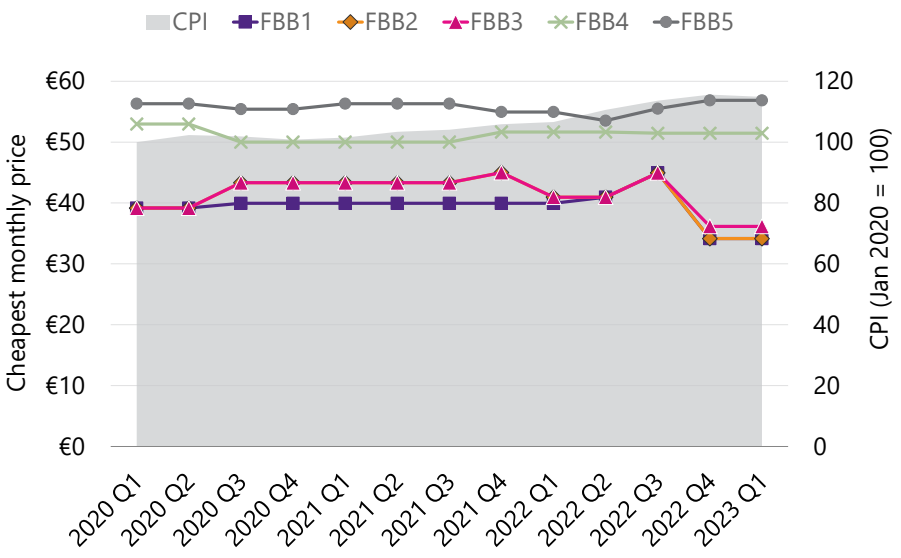
The prices of the cheapest available standalone fixed voice services also appear to be steady over time, although there were recent increases in the prices of the FV1 and FV2 service baskets.

Figure 4.7: Fixed voice service pricing (standalone services only) vs. CPI



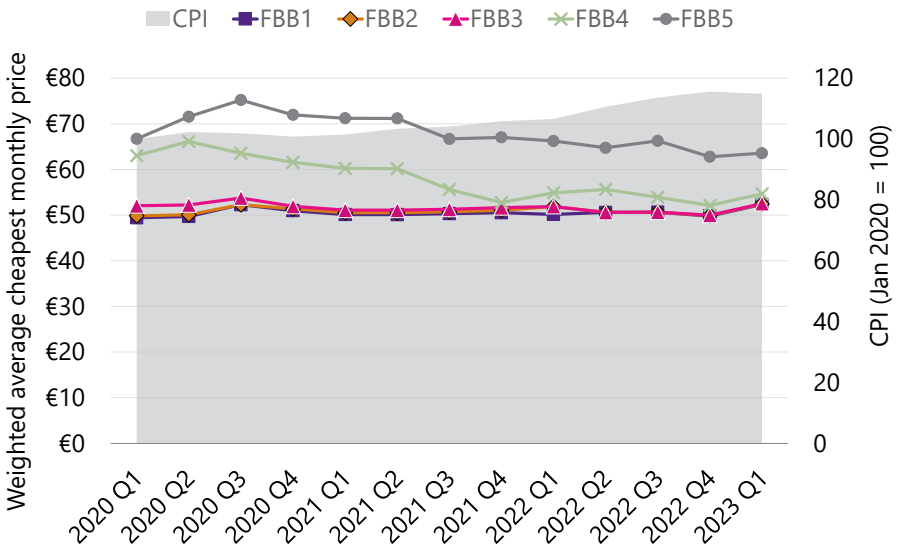
Examining fixed broadband prices, the prices of the cheapest available fixed broadband prices have held steady, compared to a backdrop of general consumer price rises.

Figure 4.8: Cheapest overall fixed broadband service prices vs. CPI



When examining the weighted average of the cheapest services from each provider, it can be seen that the prices of higher-speed services (FBB4 and FBB5) have fallen in nominal terms, in contrast to the trend in general consumer prices.

Figure 4.9: Weighted average of cheapest fixed broadband prices vs. CPI



In nominal terms, the cheapest available prices for the individual service baskets has decreased over the modelling period. The exception appears to be low usage fixed voice services (FV1), for which the price for the cheapest available product appears to be around 10% higher than at the start of the period.

The growth in household net disposable income over the period appears to have outpaced fixed voice pricing, with the exception of the low usage FV1 basket. Figure 4.10 shows the median household's net disposable income compared to the cheapest available prices for fixed voice services. Note that the trend in the bottom decile's disposable income closely mirrors the overall trend in median income growth.

Figure 4.10: Index of cheapest available fixed voice prices compared to income growth (columns)

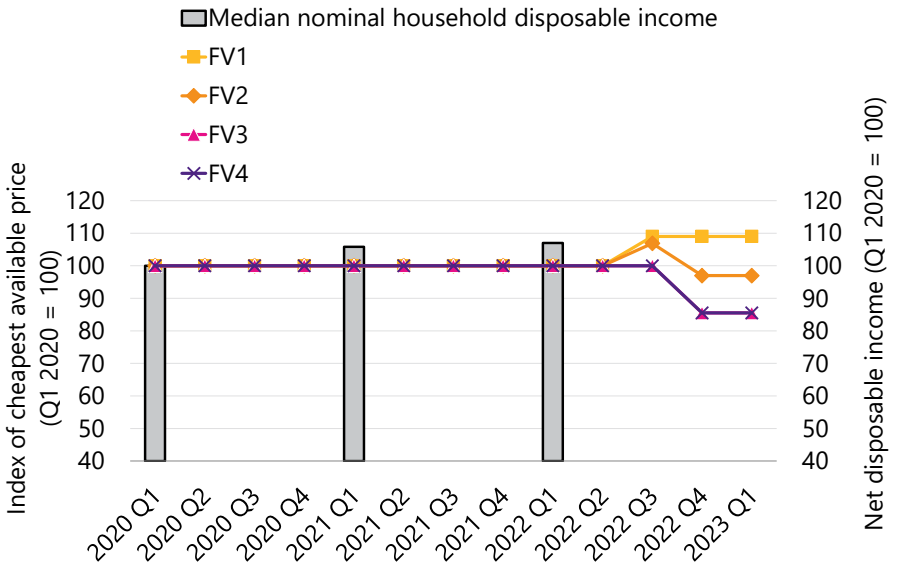
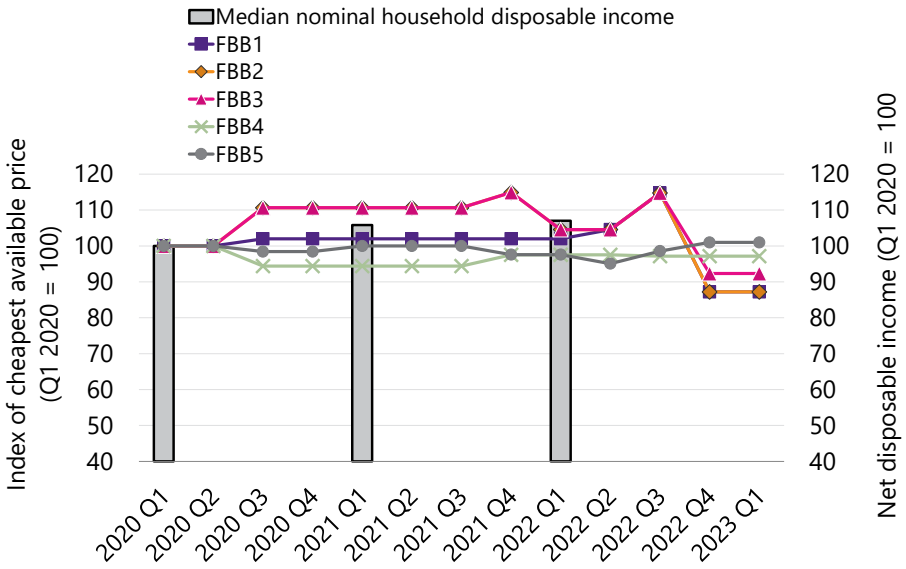


Figure 4.11 provides a similar analysis for the cheapest available fixed broadband services. With the exception of recent quarters, growth in the prices of the cheapest available FBB1/FBB2/FBB3 appeared to be outpacing average income growth.

Figure 4.11: Index of cheapest available fixed broadband prices compared to income



However, growth in disposable income appears to have outpaced growth in the weighted average of cheapest prices (Figure 4.12). This is particularly true for higher speed services (FBB4 and FBB5), for which the weighted average price appears to be relatively cheaper in nominal terms than at the start of the period.

Figure 4.12: Index of weighted average cheapest fixed broadband prices compared to income

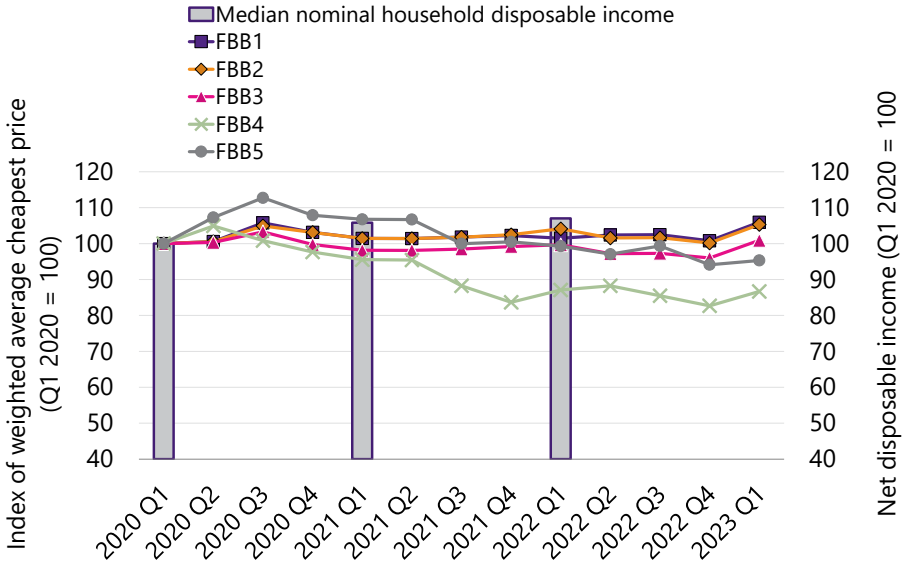


Figure 4.13 below provides a summary of the change in prices across the analysis period. With the potential exception of low-usage fixed voice services, the cheapest available prices have generally grown slower than inflation in general prices (which rose around 15%) and nominal consumer disposable income (which rose around 7% between 2020 and 2022).

The weighted average prices for fixed voice generally indicate price rises, however in most cases this will reflect changes in the prices of bundles rather than fixed voice per se (note again that several major providers no longer appear to offer standalone fixed voice services). The weighted average prices for fixed broadband also

appear to have grown more slowly than general price inflation and disposable income. Faster speed packages (FBB4/FBB5) saw declines in price.

Figure 4.13: Summary of price changes in the analysis period

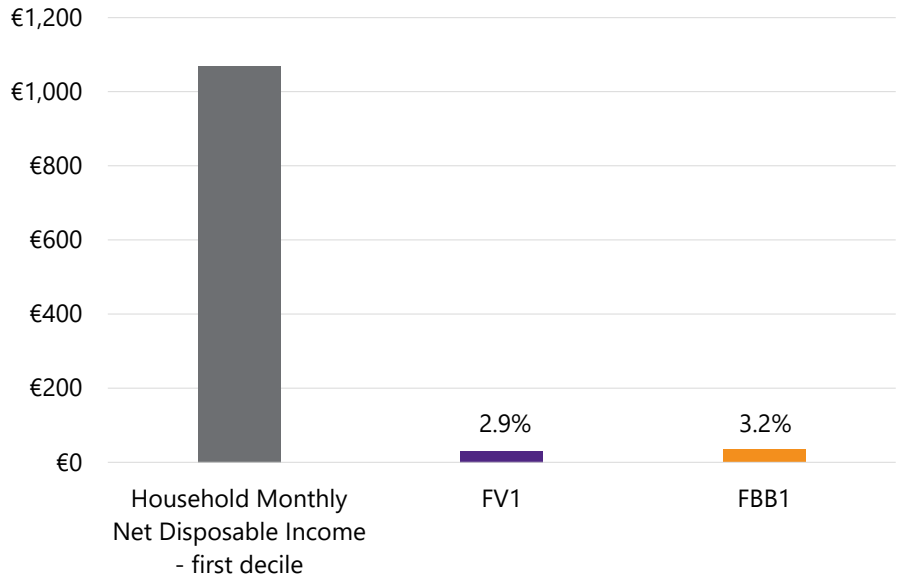
Service basket	Change in the price of cheapest available service, 2020-2023	Change in the weighted average price of cheapest available services, 2020-2023*
FV1	+9%	+22.4%
FV2	-3%	+24.4%
FV3	-14.5%	+23.4%
FV4	-14.5%	+24%
FV1 – standalone only	+9%	N/A
FV2 – standalone only	+6.9%	N/A
FV3 – standalone only	-2.4%	N/A
FV4 – standalone only	-2.4%	N/A
FBB1	-12.8%	+5.9%
FBB2	-12.8%	+5.3%
FBB3	-7.7%	+0.9%
FBB4	-2.8%	-13.3%
FBB5	+1%	-4.7%

* note that as few providers offer standalone fixed voice services, computing the weighted average price is not feasible.

Note that the above analysis is based analysis of the trends in the prices and the most recent available income data. However, this does not provide insight into the share of income that the bottom income decile devotes to communications services. The analysis indicates that communications services could comprise around 3% of the bottom income decile's monthly net disposable income (Figure 4.14). This broadly aligns with the weighting of communications services used in the computation of the CPI.[17]

[17] https://www.cso.ie/en/releasesandpublications/ep/p-cpi/consumerpriceindexapril2023/

Figure 4.14: Bottom decile monthly net disposable income vs. cheapest available FV1/FBB1 packages



Note due to bundling the combined price could be lower than the sum of the prices shown

The trends in income used in the above analysis are based on historical data, but the latest two datapoints (2021 and 2022) appear to indicate some stagnation in income growth in the lower income deciles (refer to Figure 4.4). Given the broadly flat trends in communications service pricing this would not appear to have immediate implications for the burden faced by lower income deciles when purchasing telecommunications services. However, it may warrant continued monitoring of service pricing and income levels.

Appendix A The evolution of mobile voice prices in Ireland

The baskets used in the analysis of mobile voice services are shown in Figure A.1. Note that MV1 includes no data allowance.

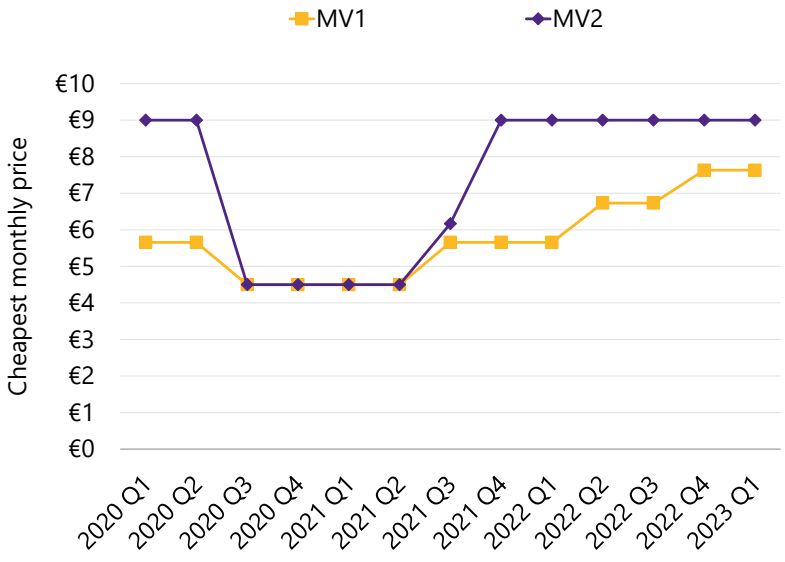
Figure A.1: Mobile voice service baskets used in this analysis

Service Basket	Details	Basket Code
Mobile Voice – Low Usage	30 mobile voice minutes, >10 SMS	MV1
Mobile Voice – Medium Usage	100 mobile voice minutes, >40 SMS, >0.5 GB data	MV2

The methodology for the analysis is the same as that used for fixed voice and fixed broadband. The analysis includes both prepay and postpaid packages – assuming that consumers would choose the cheapest available package that meets their requirements and are indifferent between prepay and postpaid packages. Note all prices shown here include VAT.

The prices of the cheapest available compliant package for each service basket are shown in Figure A.2. At this level of usage, the cheapest packages tend to be pay-as-you-go packages. The cheapest packages on the market are mostly offered by MVNOs. The dip in the cheapest available package between Q2 2020 and Q4 2021 was caused by the introduction and apparent withdrawal of a cheap pre-paid package from an MVNO.

Figure A.2: Price of the cheapest available mobile voice services



The weighted average cheapest prices (the sum of the prices of the cheapest compliant package from each provider, weighted by that provider's market share) are shown in Figure A.3. Figure A.4 shows mobile market shares.

Figure A.3: Weighted average cheapest price of mobile voice services, weighted by provider market share

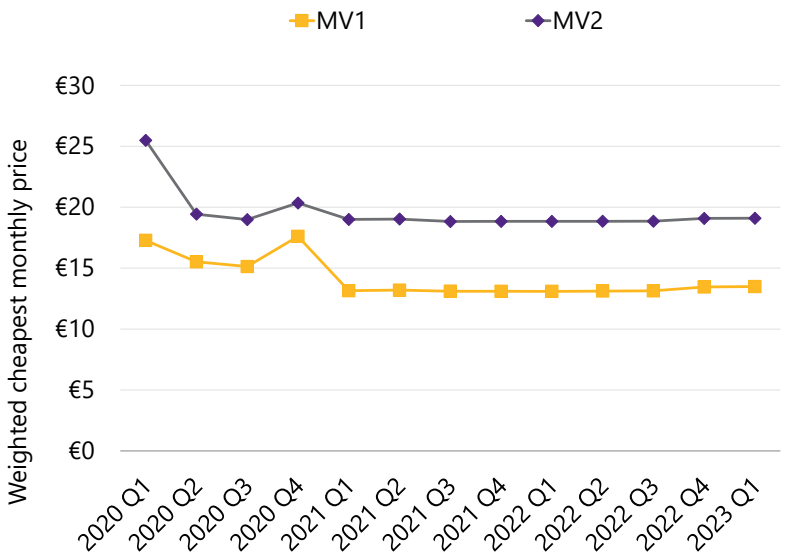
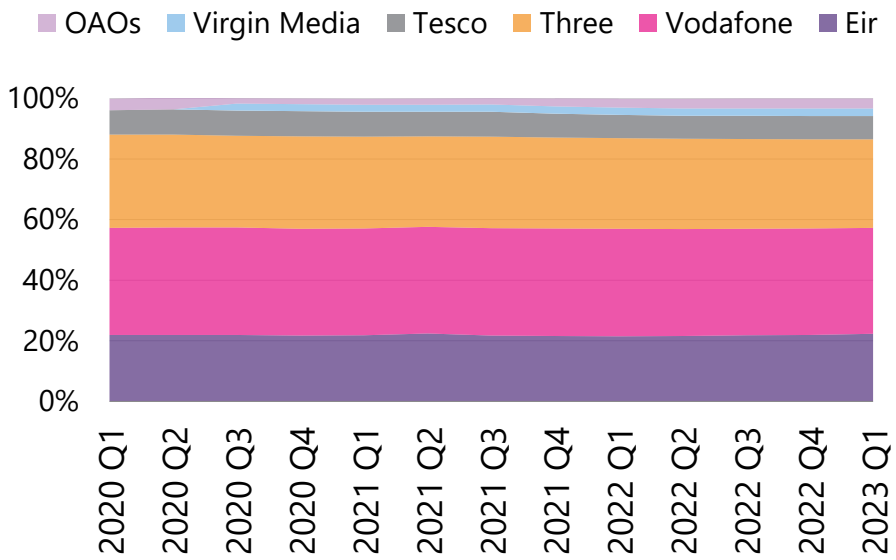


Figure A.4: Mobile voice market share, by number of subscriptions



Source: QKDR

The following chart illustrates how trends in the weighted cheapest prices for mobile baskets compare with those for fixed voice communications services and fixed broadband.

Figure A.5: Index of weighted average cheapest prices, all baskets