



Point Topic's Broadband Operators and Tariffs

Broadband tariff benchmarks: Q2 2013

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1 Introduction

Every quarter, Point Topic track changes in the standalone and bundled broadband tariffs provided by operators across the globe. This report presents the latest tariff benchmarks at the end of June 2013.

The data is collated within **Point Topic's Broadband Operators and Tariffs** subscription service. Our experienced analysts review and interpret the information to show pricing trends by region, country and technology.

We provide access to the raw data, as well as charts and tables for the tariffs offered.

2 What we measure

The tariff database covers all major operators across the globe. In total, we track 305 operators from 91 countries across the world.

We use this data to report on global trends in tariffs and bandwidths offered. We also report on regional trends and variation across countries. The data can also be used to track changes in the tariffs offered by individual operators.

Standalone and bundled

We report tariffs where broadband is offered as the only service (standalone) and tariffs where broadband is offered with other services such as TV and telephony (bundled).

Residential and business

We report both business and residential broadband tariffs.

Technologies

Within this report we look at differences between the three major fixed broadband technologies – copper, cable and fibre. The full tariff database also includes some wireless and mobile broadband tariffs.

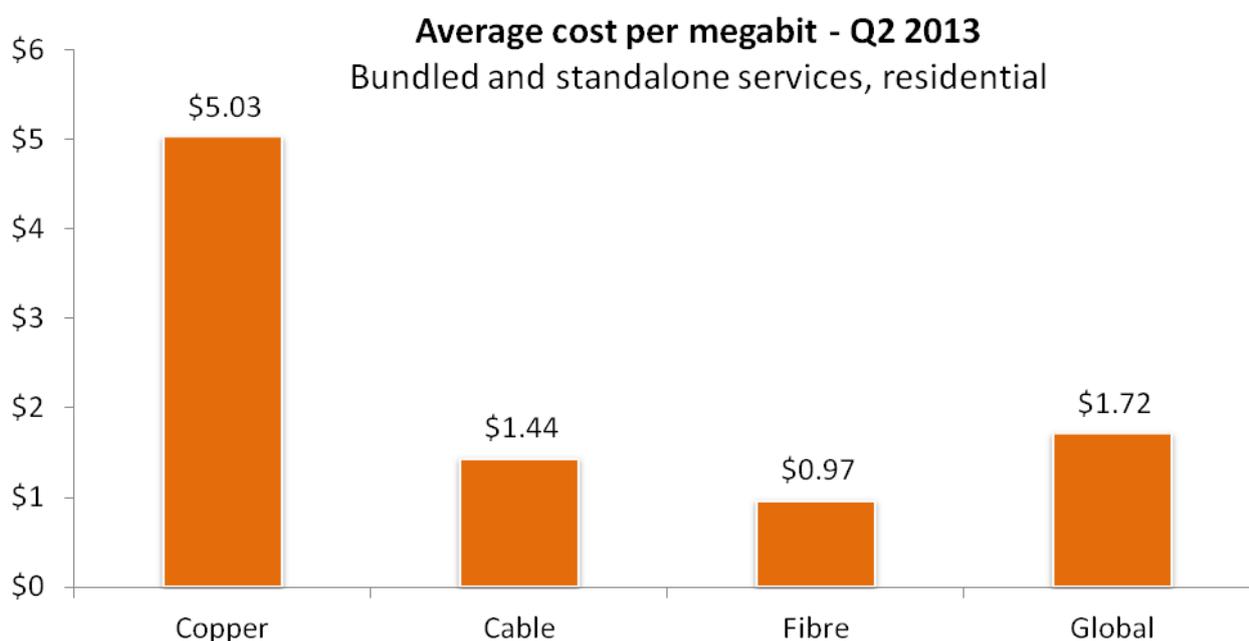
Fibre includes FTTx and VDSL technologies.

3 Global tariffs and bandwidths

We have compared the average subscription charges and corresponding bandwidths for different broadband technologies across the world.

3.1 Residential broadband packages

In Q2 2013, the average monthly charge for residential broadband services was \$74.60. The average bandwidth provided by residential services was 43.5 Mbps. This means that the average global cost per megabit was \$1.72 at the end of June 2013.



The key factor that affects this metric is the bandwidth offered by the different technologies. Monthly subscription charges for all three services are comparable, although fibre remains the most expensive service.

Even though fibre is the most expensive service it offers significantly higher bandwidth than copper and cable. At the end of June 2013, fibre services offered to residential users were nearly twice as fast as cable and six times faster than copper services.

Copper is the most expensive service for residents, given the bandwidth that they can expect to receive but copper technologies continue to be central to the networks in many regions. Many ISPs are now moving away from end-to-end copper, and in some mature markets DSL subscriber numbers are falling. However copper networks remain important for delivering fibre in the local loop, or VDSL. VDSL tariffs are included within the fibre tariff figures.

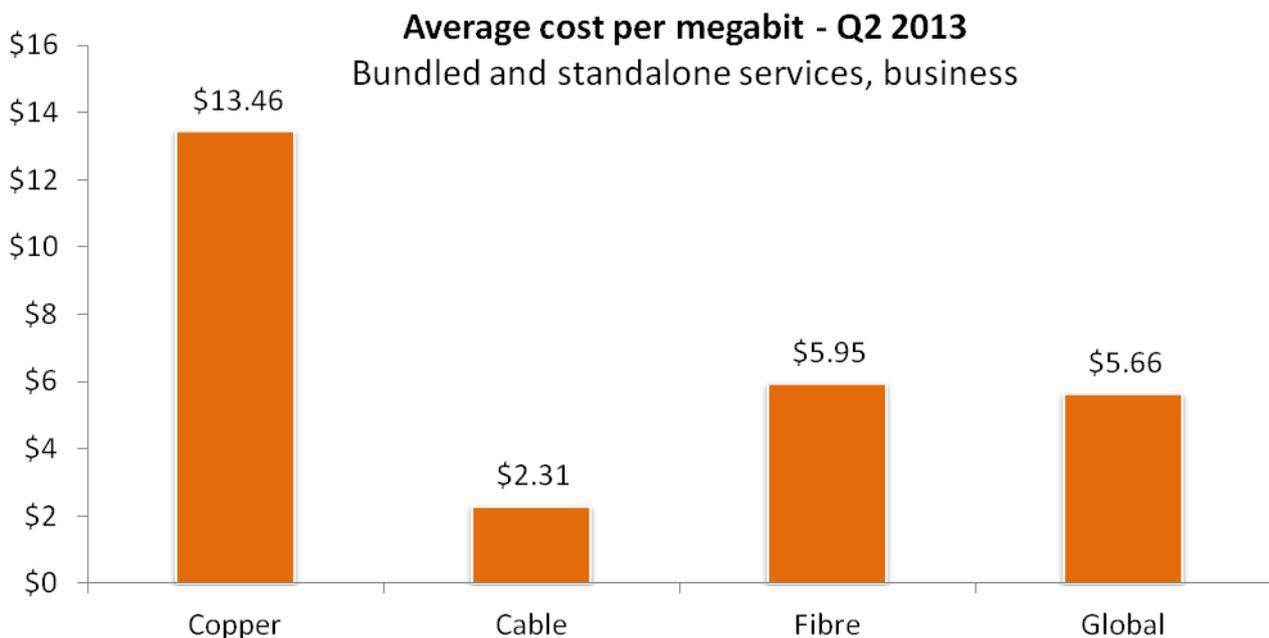
End-to-end copper will increasingly be focused in areas that have poor infrastructure and competition and low upgrade potential, meaning that operators are able to charge a relative premium which drives up the average

tariff. In areas where DSL faces more competition the tariffs tend to be lower than for either cable or fibre – pitched at the more entry level, low data volume users.

3.2 Business broadband packages

Business users in general pay more for their broadband packages. At the end of June 2013 cable was the cheapest broadband service offered to business users. Fibre was significantly more expensive, even though the bandwidth offered is comparable to fibre.

This means that overall, the cost per megabit for business cable broadband services is much cheaper than fibre. As in the residential market, copper services provide the worst value for money, given the speeds available. For all services, business users pay more than residential users. This reflects the higher usage and average bandwidths that businesses need as well the service level agreements and increased customer service costs generally associated with business services.



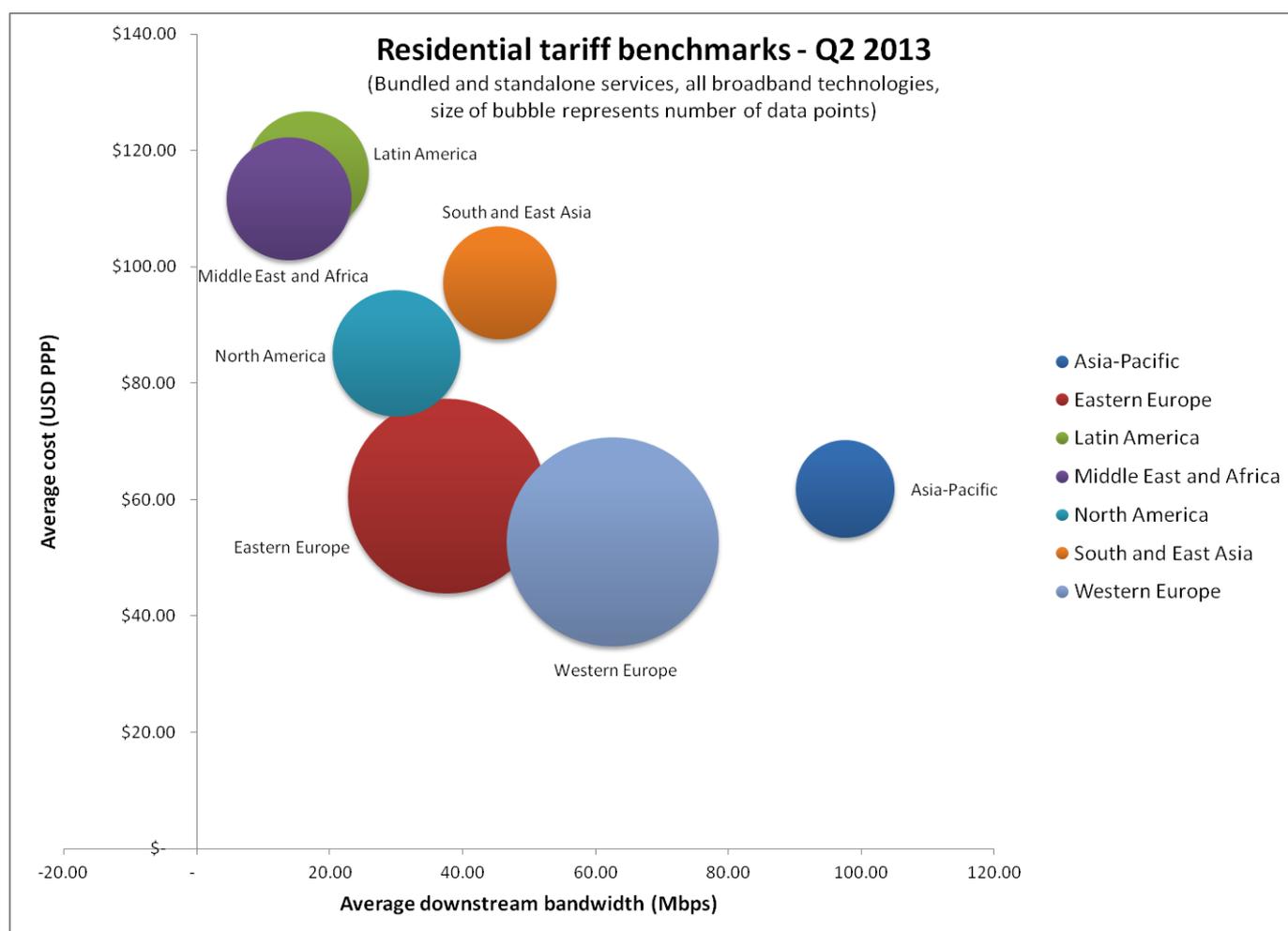
The high cost for fibre is partly due to the introduction of new gigabit fibre tariffs. In this quarter we have included several high-cost high-speed dedicated business fibre services in our study. These services offer speeds as fast as 10Gbps. Overall, cost is not increasing as rapidly as speed, and the average cost per megabit for fibre business services continues to drop.

4. Regional tariffs and bandwidths

In this section we have compared the average subscription charges and corresponding bandwidths for different broadband technologies in different regions across the world.

4.1 Residential broadband packages

Asia-Pacific offers, on average, the fastest broadband services to residential users. The prices for residential services in this region are also among the lowest. This once again confirms that countries like Japan are leading in terms of “value for money” on residential broadband.



The average bandwidth offered to residential users in Asia-Pacific increased significantly in this quarter, moving from around 60 Mbps at the end of March 2013 to nearly 100 Mbps at the end of June 2013. The increase has been driven by new high-speed fibre services introduced in Japan and Singapore, where fibre broadband packages now typically offer more than 300 Mbps to users.

The average price for residential broadband services is comparable in Europe and Asia-Pacific, although services in Europe are typically much slower. Even though fibre services are more established in Eastern Europe, countries in Western Europe are now delivering much faster services – with Sweden and the UK now offering

their residents gigabit services. North America is now further behind Europe and Asia for headline broadband speed. The next major shift will happen in North America when mass consumer gigabit services come online.

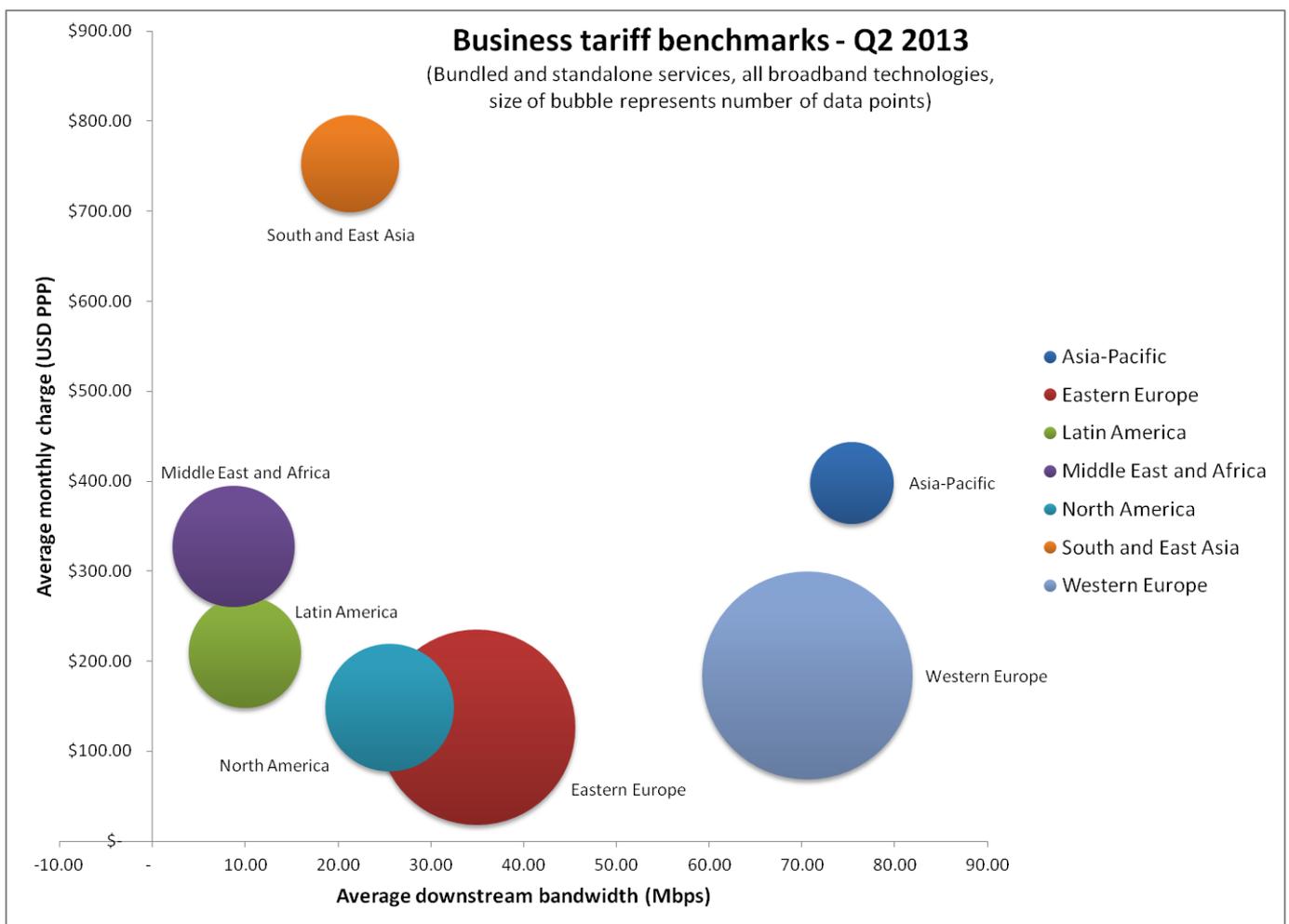
Prices in the Middle East and Africa and South and East Asia have dropped within the quarter, even though both markets are now offering faster services. Latin America has remained fairly inactive, and is now the most expensive region for residential broadband services.

4.2 Business broadband packages

The lowest priced business tariffs are offered in Europe and the Americas, although services in Europe and North America are typically faster. Asia-Pacific offers the fastest broadband services to businesses, but at a higher cost than in Europe and the Americas.

Western Europe and Asia-Pacific are now racing ahead of the rest of the world in terms of business broadband speeds. Again, this is due to the introduction of very high-speed dedicated business services, mostly reported for the United Kingdom and Japan. North America in particular is being left behind as the rest of the mature markets focus on higher-speed services.

South and East Asia sells by far the most expensive broadband services to businesses. This is due to a dominance of expensive fibre based services offered to businesses in China and India.



5. Regional technology benchmarks

Here, we show a comparison of the average tariffs offered by region for copper, cable and fibre broadband services.

5.1 Residential broadband packages

Western Europe and Asia-Pacific have become the key markets to watch for high speed fibre broadband services. On average, residents in the region achieve better 'value-for-money' from their fibre broadband services as they receive higher speed services at a lower cost.

It is interesting to note that Western Europe – where FTTH/P has failed to gain much of a foothold – continues to offer the lowest average PPP tariff for fibre, most often for a hybrid solution. It remains to be seen whether this position can be maintained.

One of the major criticisms of the Western Europe hybrid approach is that beyond 100Mbps supply will be very difficult and expensive. Western Europe may be forced into a second fibre build out earlier than expected, or will find themselves within the slow lane in 3-5 years time.

Costs across the rest of the world remain much higher for all services, relative to the bandwidth that users can expect to receive.

Copper based residential services are most expensive in Latin America, Middle East and Africa, and South and East Asia. In the majority of countries in these regions, customers still have a limited choice of alternative technologies and are forced to pay a premium price for legacy broadband due to a lack of competition.

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Average cost per megabit by technology Q2 2013
(standalone and bundled services)



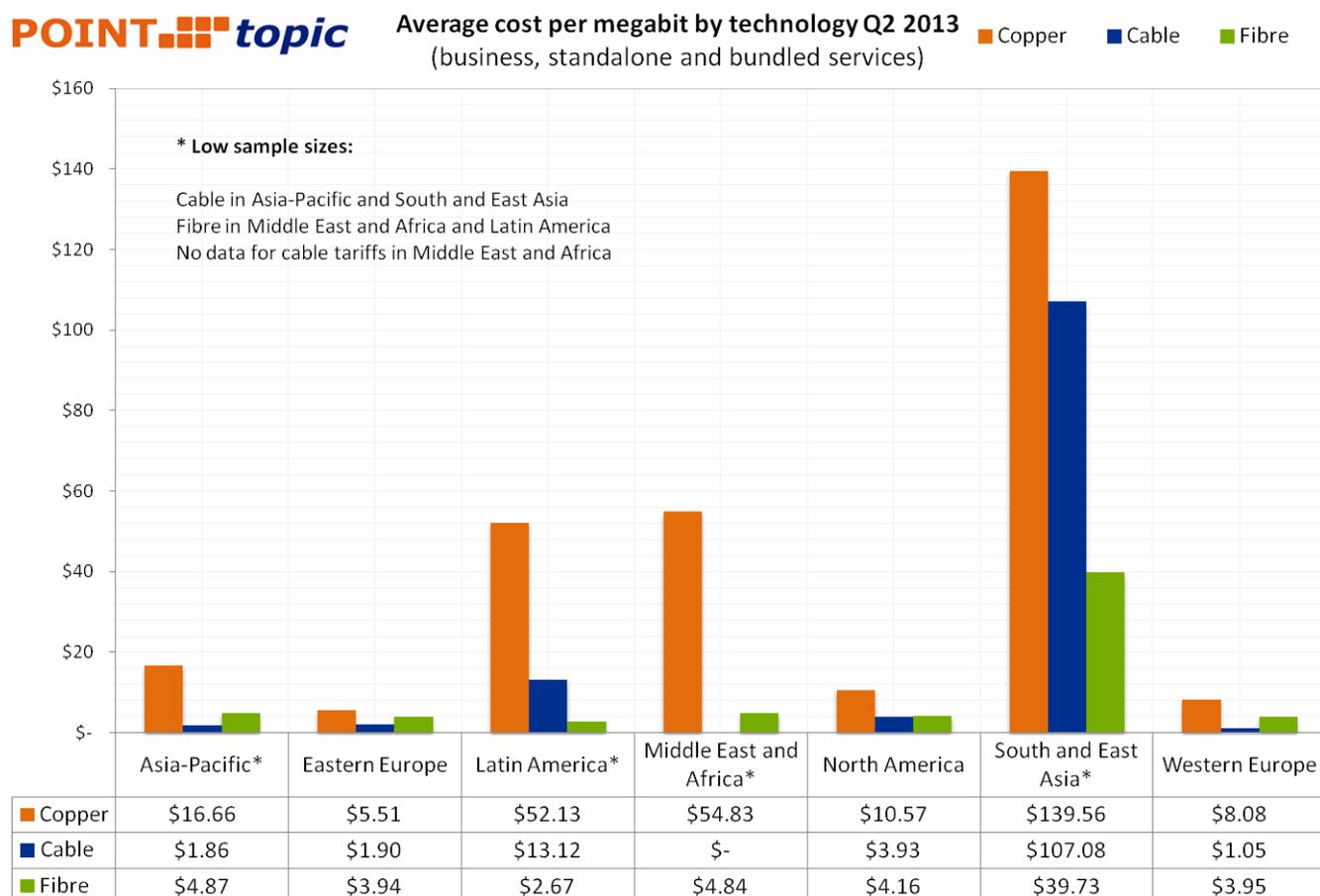
5.2 Business broadband packages

It can be difficult to get pricing information for business services from some operators. Therefore we must alert readers to the cases where the sample sizes are small.

With an exception of Asia Pacific and South and East Asia, fibre based business services tend to be less expensive than copper, given the speeds that are available. This could be due to the fact that fibre is a relatively new technology there and operators are trying to sign up as many customers as possible by offering lower prices in the initial stages of fibre deployment. On the other hand, in the case of South and East Asia, the dedicated fibre lines in China and India are highly expensive, which has raised the average cost per megabit for their business fibre services. China specialises in FTTB/MDU which is then portioned out amongst tenants.

The most significant change to occur in the last three months has been the reduction in the average cost per megabit for fibre business services in Asia-Pacific. This change has been led by Japan, where the speed of services offered to business is increasing without a corresponding increase in price.

Copper based services are most expensive in Latin America, Middle East and Africa, and South and East Asia where businesses are still being charged premium prices as there is still relatively little competition from alternative technologies.

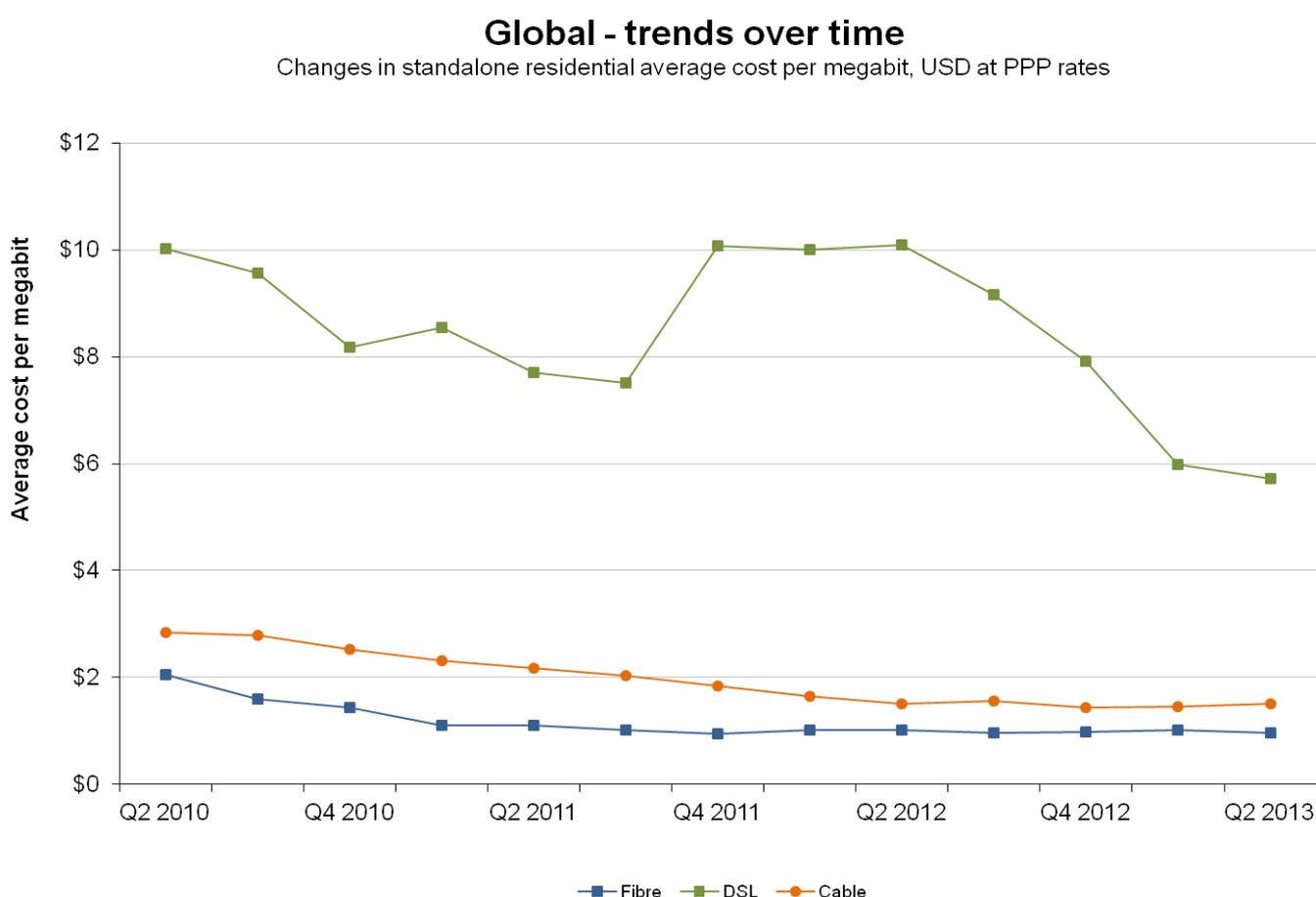


6 Global trends over time

Within this report, we look at global changes in the average cost per megabit for copper, cable and fibre broadband services. We compare residential and business standalone broadband tariffs. All prices are quoted in international US dollars at PPP rates to allow comparisons between countries.

6.1 Residential broadband packages

The average cost per megabit for residential copper (or DSL) broadband services is significantly higher than fibre or cable services and has been for some time. In this quarter, the average cost per megabit for cable and fibre residential services did not change significantly. The average cost per megabit for copper services declined throughout 2012, but has remained relatively constant within this quarter.



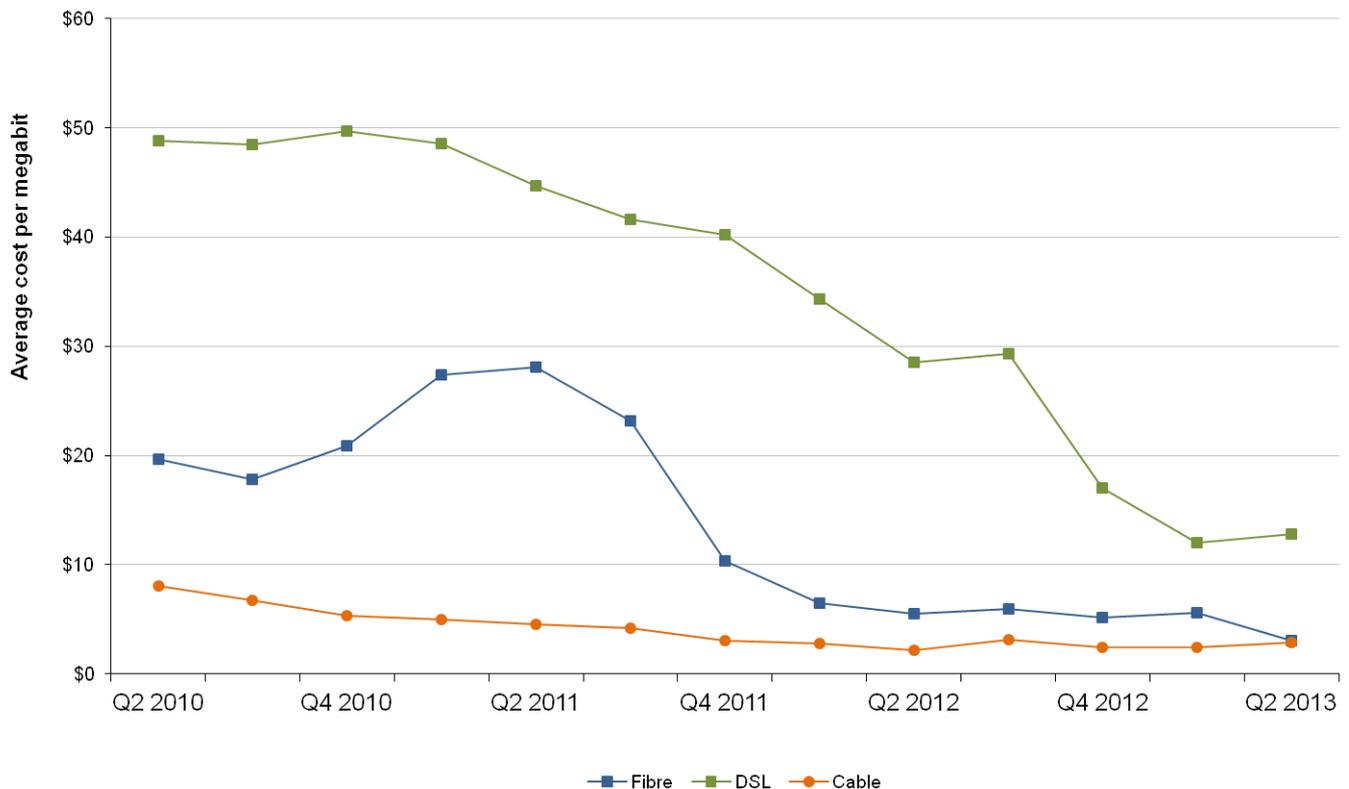
Since Q2 2010, the average cost per megabit for residential cable services has been declining steadily, although it has remained relatively stable since Q2 2012. The average cost per megabit for residential fibre services has remained relatively stable since Q2 2011. The global trends in DSL have been much more erratic over the same period. DSL is the slowest broadband service, offering on average speeds of 12.5 Mbps to global users in Q2 2013.

6.2 Business broadband packages

The average cost per megabit for broadband services through DSL, cable and fibre are much more closely matched for business tariffs. Here cable and fibre services are equally matched, in terms of the cost given the speeds business users can expect.

Global - trends over time

Changes in standalone business average cost per megabit, USD at PPP rates



The cost per megabit for cable business broadband services has been declining over time but has remained relatively stable in recent years.

Fibre shows a more erratic pattern. The average speed offered by fibre providers to businesses increased significantly in Q4 2011, as operators started to focus more on this particular market. Prior to this, fibre speeds offered to businesses had been much lower than those offered to residential users.

The monthly tariffs offered to businesses for DSL services have been decreasing over the same time period, whilst the speeds have been increasing slightly. Whilst these shifts are modest, they account for a big decline in the average cost per megabit for DSL business services over the time period. In the last quarter however, the average monthly charge for business DSL services increased, causing the average cost per megabit to increase for the first time in nearly a year.

Overall, we are nearly seeing a fairly level playing field for business broadband technologies in terms of the cost per megabit.

7 Country ranking report

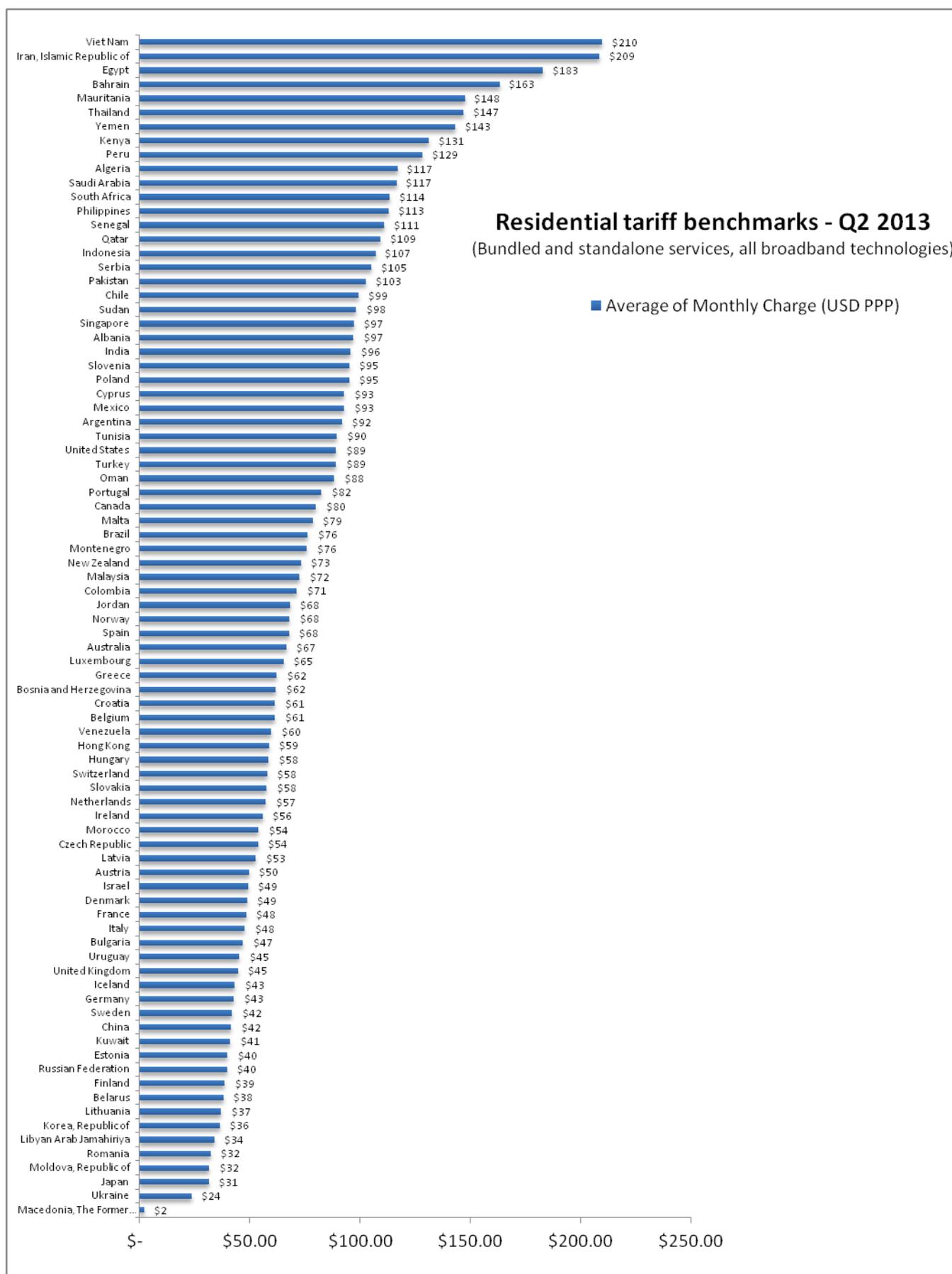
Within this section, we look at the average monthly tariff for residential broadband services across the world. The average tariffs includes copper, cable and fibre broadband services, and cover both standalone and bundled services.

All tariffs are quoted in international US dollars at PPP rates to allow comparisons between countries.

Many countries in Eastern Europe rank well in terms of offering the cheapest broadband, whereas residents who live in the Middle East and Africa tend to pay most for their broadband services.

Overall, the trend seems to be for some less developed countries - in particular those outside the EU - to have high broadband prices caused by lower investment in infrastructure as well as lower take-up which prevents them from benefiting from the economies of scale. Customers in some more developed Western European economies as well as countries like Singapore, the United States, Canada, New Zealand and Australia tend to pay more for broadband than those in Eastern European states which belong to the European Union and often benefit from the EU funding. Some less developed economies from other regions (e.g. Tunisia, Libya) tend to have relatively low broadband prices too, which could be the case because of the lower purchasing power of their population.

Even though much has been said about the introduction of very high-speed services in Japan recently, it still remains one of the cheapest countries in the world for residential broadband services. Japan is leading at all ends of the broadband market.



APPENDIX ONE: Background to the methodology

Introduction

In order to more directly represent the operator tariffs we collate we have consolidated the tariff benchmark spreadsheets into a single file. This is available to subscribers to the Broadband Operators and Tariffs service (see link below).

We have also reduced the number of tables and charts in this report, while increasing the information contained in them.

Other data and analysis can be seen in the spreadsheets and subscribers can conduct their own analysis based on the data provided.

If there is a particular element that you cannot find and you wish to have available please contact us on tariffs@point-topic.com.

In addition we have reduced the number of tariffs that we exclude from our analysis, specifically we include tariffs where:

There is a low data cap – only tariffs which are completely PAYG have been excluded in this analysis

This results in the following totals for the tariffs that serve as the base for the following analysis:

Total tariffs – 5,082.

4,201 standalone (broadband only) and 881 bundled offerings.

Residential & Business – 2,912 (res) and 2,170 (bus). The remainder are not specified or are wholesale

Coverage and methodology

The monthly rental prices have been analysed in terms of local currency and equivalent USD costs.

As of Q1 2007, a full set of tariff information is available for download as part of Point Topic's *Broadband Operators and Tariffs Service*. The data set contains the most up-to-date tariff information including such details as monthly rental, connection speed, equipment cost and service features. In Q1 2007, Point Topic began providing end of quarter tariff updates from the database, which clients may use for their own historical analysis. These are now incorporated into our benchmark report and are published simultaneously.

Full details of the tariffs and comparisons are provided in the excel spreadsheet, which is available to *Broadband Operators and Tariffs* service subscribers.

A current data set of tariffs can be downloaded from your *Broadband Operators and Tariffs* service website at any time.

Entries within these data sets which do not have both a downstream speed and a monthly rental listed have been excluded from this analysis. This paper has addressed services which are either residential or business. In cases where service tariffs apply to both residential and business customers, such services have not been included in the average tariff pricing analysis.

The PPP rates used up to Q4 2010 are published annually by the OECD for a selection of countries and are readily available to the public free of charge. Those PPP rates are published at the beginning of each year are

used throughout the year and hence, any quarterly changes in PPP rates are not taken into account during the analysis. Some retrospective adjustments to PPP rates were made during the period 2000 – 2010. All PPP rates during this period were updated accordingly.

Price comparison issues

This analysis is intended as a general indicator of the trends in pricing in major broadband countries. There are several additional variables that complicate the process of making a direct comparison of broadband prices. These need to be taken into account when making a more in-depth analysis:

- **ISP charges:** Some operators include ISP charges in their monthly rental, whereas others do not and charge an additional cost. This is evident in the case of Yahoo Japan, where a separate ISP charge of JPY 400 is billed to the customer. In instances where this clearly occurs, Point Topic includes the charge in the monthly rental.
- **Bundling:** With the continuous competition in service price, ISPs are focusing on bundling value-added services in order to increase revenue. Since Q1 2007, an integrated tariff database file containing bundled services information is available as part of the *Broadband Operators and Tariffs* service. This allows a comprehensive analysis of bundled services and pricing which we introduced here for the first time in Q1 2007. A paper on the statistical relationship of the bundled services will be published during 2012.
- **Tax charges:** Sales taxes (such as value-added tax) are also included in the monthly rental by most operators, although this is not the case in North America where telecommunications taxes are charged on top of the monthly rental. There would be a slight difference in the rankings if tax costs were included in the quoted monthly rentals of North American operators.
- **Time limits:** Many operators worldwide have begun introducing broadband packages that restrict the time spent on-line without additional charges. For a monthly flat rate, customers can enjoy 'free' broadband access at particular times of the day/night, or for a certain number of hours per month. Any time spent beyond that limit is charged at an hourly rate.
- **Download limits:** Some operators offer entry-level services with data volume limits. In most cases, these limits are generous enough so as not to affect light or medium users. Point Topic includes this type of service as a reasonable entry-level service, since it does not involve adding a usage charge to the monthly cost for the typical user.