

Der Schweizer Fernmeldemarkt im internationalen Vergleich

Um die Schweiz erweiterter Auszug aus dem 10. Implementierungsbericht der Europäischen Union

unter Berücksichtigung der Kaufkraftparitäten

Ausgangslage für die Version mit Kaufkraftparitäten

Die Kommission der Europäischen Gemeinschaften veröffentlicht seit mehreren Jahren jährlich den „Implementation report“ (im folgenden Implementierungsbericht)¹. Dieser beschreibt den Status der Umsetzung des EU-Gesetzesrahmens in nationales Recht in den EU-Mitgliedstaaten. Anhang III des Implementierungsberichts enthält ausserdem Informationen über den Stand des Marktes für elektronische Kommunikation in der EU.²

„Im Einvernehmen mit den EU-Behörden erweitert das BAKOM diesen Bericht um die Schweiz. Dies ermöglicht den Vergleich der Schweiz mit den EU-Mitgliedstaaten und gegebenenfalls mit Japan und den USA“.³

Wie auch die Europäische Kommission verzichtet das BAKOM in seinem Bericht „Der Schweizer Fernmeldemarkt im internationalen Vergleich – Um die Schweiz erweiterter Auszug aus dem 10. Implementierungsbericht der Europäischen Union“ bei den Preisvergleichen eine Kaufkraftbereinigung (eine Bereinigung mit der sog. "Purchasing Power Parity", PPP; deutsch: **KKP**) vorzunehmen.

Die Methode der Kaufkraftparität (KKP-Methode) geht davon aus, dass sich bei Wegfallen von Handelsschranken die Preise eines einheitlichen Produkts angleichen (Einheit des Preises). Die KKP-Methode korrigiert somit Preisvergleiche um die Differenz des allgemeinen Preisniveaus und des Lebensstandards zwischen zwei Ländern.

Ein Preisvergleich mit dem Ausland ist im Bereich der Telekommunikationsdienstleistungen (die weder exportierbar noch importierbar sind) als "Benchmarking" zu verstehen. Ein solches Benchmarking sollte Preis- und Kostenunterschiede im In- und Ausland berücksichtigen. Ein Preisvergleich unter Verwendung nominaler Wechselkurse trägt dem Unterschied der allgemeinen Preisniveaus der betrachteten Länder nicht Rechnung. Die verschiedenen Kaufkraftparitäten der verglichenen Länder werden nicht in Betracht gezogen. Das Wegfallen der Kaufkraftbereinigung führt bei einem Benchmark deshalb zu Ergebnissen, die den Unterschieden in den Preisniveaus der betrachteten Länder nicht Rechnung tragen.

Ein auf Wechselkursen basierender Preisvergleich lässt keine Rückschlüsse auf die tatsächliche Effizienz und die realen Preise des Sektors zu. Zu diesem Schluss kommen verschiedene Studien wie die von Prof. Thierry Madiès und Jérôme Creel⁴. Diese zeigen in ihrer Studie auf, dass:

- die Wechselkursmethode theoretisch nicht abgestützt ist;
- die Entwicklung des Tageswechselkurses rein zufällig ist, da es keine valable theoretische Erklärung für diese Entwicklung des kurz- bis mittelfristigen Wechselkurses gibt;

¹ MITTEILUNG DER KOMMISSION AN DEN RAT, DAS EUROPÄISCHE PARLAMENT, DEN EUROPÄISCHEN WIRTSCHAFTS- UND SOZIALAUSSCHUSS UND DEN AUSSCHUSS DER REGIONEN; Europäische Vorschriften zur elektronischen Kommunikation und Märkte 2004; SEC (2004)1535, Brüssel, 2.12.2004; KOM(2004) 759 endgültig

² Commission Staff working paper; EUROPEAN ELECTRONIC COMMUNICATIONS REGULATION AND MARKETS 2004 (10TH REPORT); ANNEX 3, MARKET OVERVIEW; SEC(2004)1535; Volume II, Brussels, 2.12.2004

³ BAKOM; Der Schweizer Fernmeldemarkt im internationalen Vergleich; Um die Schweiz erweiterter Auszug aus dem 10. Implementierungsbericht der Europäischen Union; Biel, Juli 2005

⁴ Madiès, Th und Creel, Jérôme; "Quel taux de change retenir pour effectuer des comparaisons de prix dans le secteur des Télécommunications ?", Fribourg, 8.6.2004

- in Bezug auf die Entwicklung des Wechselkurses von CHF – Euro nicht von rein zufälliger Entwicklung gesprochen werden kann, da die Nationalbank zur Stützung des Wechselkurses eingreift, weshalb eine Vorhersage durch den Zufallsfaktor somit noch schwieriger ist;
- der tägliche Wechselkurs CHF – Euro noch volatiler ist als der nach Kaufkraftparität bereinigte Wechselkurs und somit nicht dem Stabilitätskriterium entspricht.

Prof. Thierry Madiès und Jérôme Creel⁵ empfehlen für internationale Preisvergleiche im Telekommunikationssektor die KKP-Methode.

Auch die Studie von M. Lutz (vgl. Mathias Lutz, Internationale Preisvergleiche: Methodik und Anwendung auf nicht handelbare Güter, März 2004, Diskussionspapier Nr. 2004-07 des Institute of Economics der HSG) zeigt, dass die Wechselkurs-basierte Methode gegenüber der KKP-Methode bei Benchmarks eine „second best“-Lösung bedeutet.

Swisscom ist der Auffassung, dass die Wechselkurs-basierte Methode und die KKP-Methode zwei verschiedene Aussagen machen und dass ein Benchmark vollständig ist, wenn auch die Kaufkraftbereinigung in den Preisvergleichen stattfindet. Um das von der EU und vom BAKOM gezeichnete Bild zu ergänzen, steht mit diesem Bericht eine Version der Graphiken des um die Schweiz erweiterten Auszugs des 10. Implementierungsberichts zur Verfügung, die die Preisvergleiche der EU und des BAKOMs, die – wie erwähnt - auf nominalen Wechselkursen basieren, um die kaufkraftbereinigten Preisvergleiche ergänzt.

Erklärungen zu den Berechnungen

Zur Berechnung der KKP-bereinigten Preise benutzt Swisscom die nominalen Wechselkurse des BAKOM, die denjenigen der EU-Kommission entsprechen. Die Kaufkraftparitäten sind von www.oecd.org/std/ppp übernommen worden. Diese haben die USA als Basis. Die Kaufkraftparitäten wurden auf die Basis EU umgerechnet.

Die verwendeten KKP sind die folgenden:

⁵ Madiès, Th und Creel, Jérôme; *“Quel taux de change retenir pour effectuer des comparaisons de prix dans le secteur des Télécommunications ?”*, Fribourg, 8.6.2004

	July 2005 Basis USA (www.oecd.org/std/ppp)				July 2005 Basis Euro area			
	2001	2002	2003	2004	2001	2002	2003	2004
AT	0.919	0.912	0.908	0.908	1.0420	1.0411	1.0365	1.0377
BE	0.898	0.883	0.877	0.883	1.0181	1.0080	1.0011	1.0091
CH	1.9	1.8	1.79	1.77	2.1542	2.0548	2.0434	2.0229
CY								
CZ	14.6	14.3	14.5	14.6	16.5533	16.3242	16.5525	16.6857
DE	0.975	0.959	0.948	0.939	1.1054	1.0947	1.0822	1.0731
DK	8.35	8.45	8.4	8.46	9.4671	9.6461	9.5890	9.6686
EE								
EL	0.694	0.678	0.683	0.697	0.7868	0.7740	0.7797	0.7966
ES	0.75	0.743	0.742	0.768	0.8503	0.8482	0.8470	0.8777
FR	0.899	0.9	0.906	0.897	1.0193	1.0274	1.0342	1.0251
FI	0.976	0.967	0.962	0.936	1.1066	1.1039	1.0982	1.0697
FIN(E)	0.976	0.967	0.962	0.936	1.1066	1.1039	1.0982	1.0697
HU	110	115	120	126	124.7166	131.2785	136.9863	144.0000
IT	0.818	0.825	0.84	0.839	0.9274	0.9418	0.9589	0.9589
IE	0.985	1	1.01	1.01	1.1168	1.1416	1.1530	1.1543
LU	0.996	0.98	0.986	0.984	1.1293	1.1187	1.1256	1.1246
LT								
LV								
MT								
NL	0.918	0.921	0.92	0.919	1.0408	1.0514	1.0502	1.0503
PT	0.658	0.658	0.665	0.662	0.7460	0.7511	0.7591	0.7566
PL	1.85	1.83	1.84	1.83	2.0975	2.0890	2.1005	2.0914
SE	9.34	9.36	9.39	9.32	10.5896	10.6849	10.7192	10.6514
SI (Slovenia)								
SK (Slovakia)	16.3	16.2	17	17.2	18.4807	18.4932	19.4064	19.6571
UK	0.623	0.61	0.618	0.618	0.7063	0.6963	0.7055	0.7063
USA	1	1	1	1	1.1338	1.1416	1.1416	1.1429
USA - CA	1	1	1	1	1.1338	1.1416	1.1416	1.1429
USA - NY	1	1	1	1	1.1338	1.1416	1.1416	1.1429
JP	149	144	139	133	168.9342	164.3836	158.6758	152.0000
Euro area	0.882	0.876	0.876	0.875	1.0000	1.0000	1.0000	1.0000
EU15	0.908	0.899	0.887	0.889	1.0295	1.0263	1.0126	1.0160
EU21	0.908	0.899	0.887	0.889	1.0295	1.0263	1.0126	1.0160
EU22	0.908	0.899	0.887	0.889	1.0295	1.0263	1.0126	1.0160
EU25	0.908	0.899	0.887	0.889	1.0295	1.0263	1.0126	1.0160
OECD	1	1	1	1	1.1338	1.1416	1.1416	1.1429

Weitere Hinweise

Im Bericht der EU-Kommission fehlen stellenweise Angaben von Werten in den Graphiken. Wo eben möglich haben wir die Werte aus den Vorberichten, d. h. dem 8. und 9. Implementierungsbericht entnommen. Wo diese Recherche fehlschlug, mussten wir in unserer Analyse von einer Berechnung der KKP-bereinigten Preise absehen.

Ein ähnliches Problem stellte sich bei der Berechnung der EU Durchschnitte. Die Gewichtung der „EU weighted average“ ist im Bericht der EU-Kommission nicht weiter erläutert. Wir haben daher diese Werte in den meisten Fällen nicht weiter bearbeiten können.

Hilfestellung für die Lektüre

Hauptzweck des vorliegenden Berichts ist, auf der Grundlage von Anhang III des 10. Implementierungsberichts der Europäischen Union wie auch des Berichts des Bakoms „Der Schweizer Fernmeldemarkt im internationalen Vergleich – Um die Schweiz erweiterter Auszug aus dem 10.

Implementierungsbericht der Europäischen Union“ die Schweiz mit den EU-Mitgliedstaaten zu vergleichen. Dies entspricht auch dem Zweck des Berichts des BAKOM. Beide Berichte verfolgen somit das gleiche Ziel.

Der vorliegende Bericht begrenzt sich auf eine Gegenüberstellung der Graphiken des BAKOM und der EU auf der einen Seite (Wechselkurs-Methode) und der um KKP bereinigten Graphiken (KKP Methode) auf der anderen Seite.

Die von Swisscom eingefügten Graphiken, die die KKP-Bereinigung enthalten, sind

- rot und
- fett (für den schwarz-weiss Ausdruck)

umrandet.

Danksagung

Swisscom ist für die Berechnungen der kaufkraftbereinigten Preisvergleiche allein verantwortlich. Swisscom hat aber die Methode der Berechnung und Mehrzahl der Tabellen von Frau Prof. Camille Baulant, Angers, überprüfen lassen. Ihr ist an dieser Stelle für ihren Beitrag zu diesem Bericht gedankt.

ANNEX 3

MARKET OVERVIEW

Figure 1

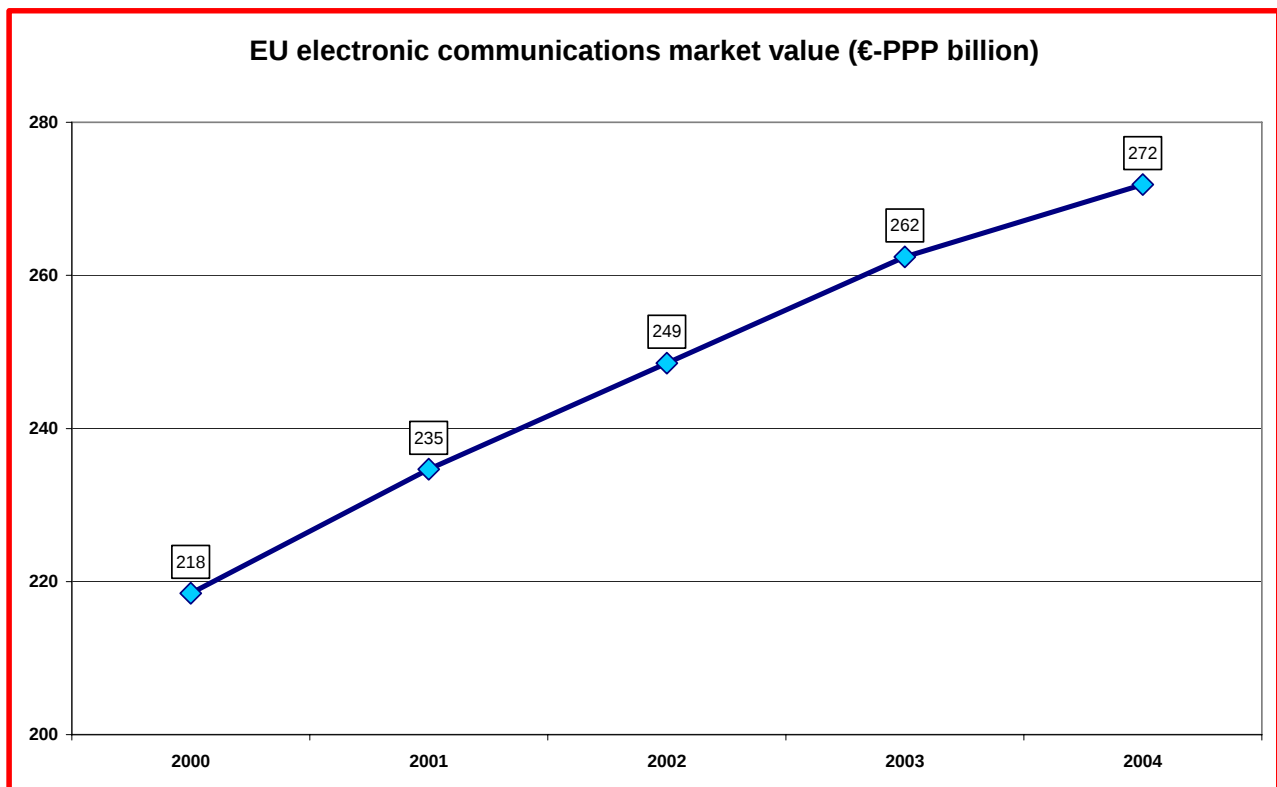
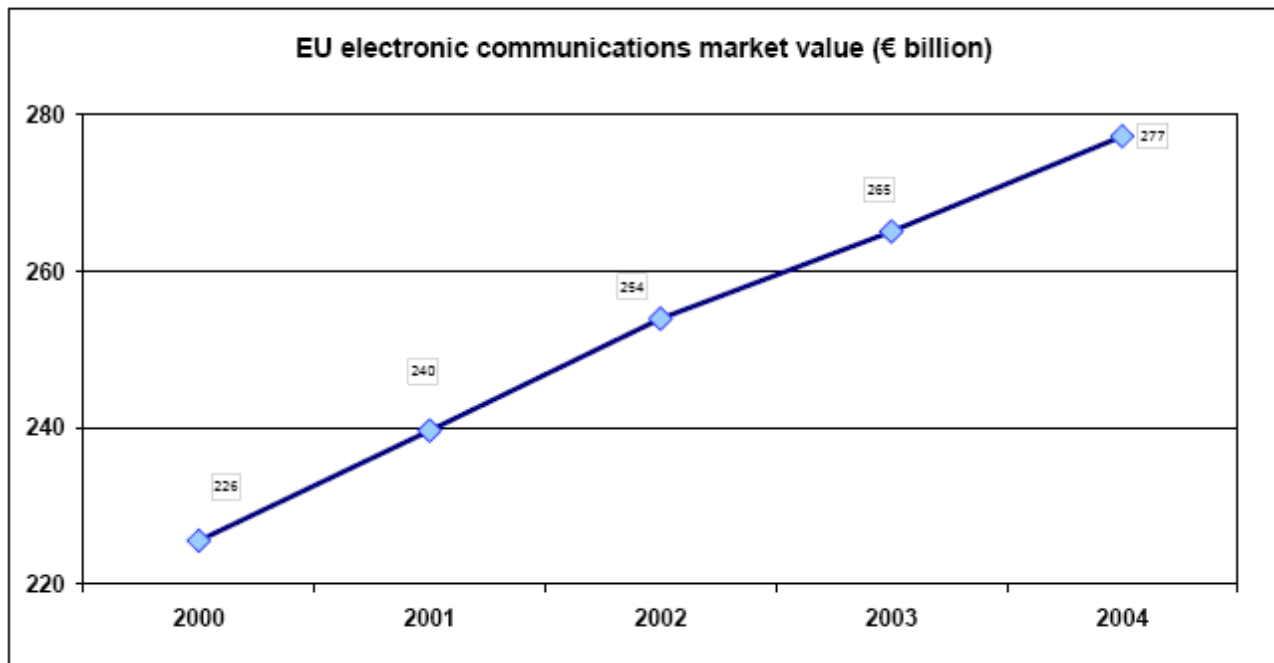


Figure 1a

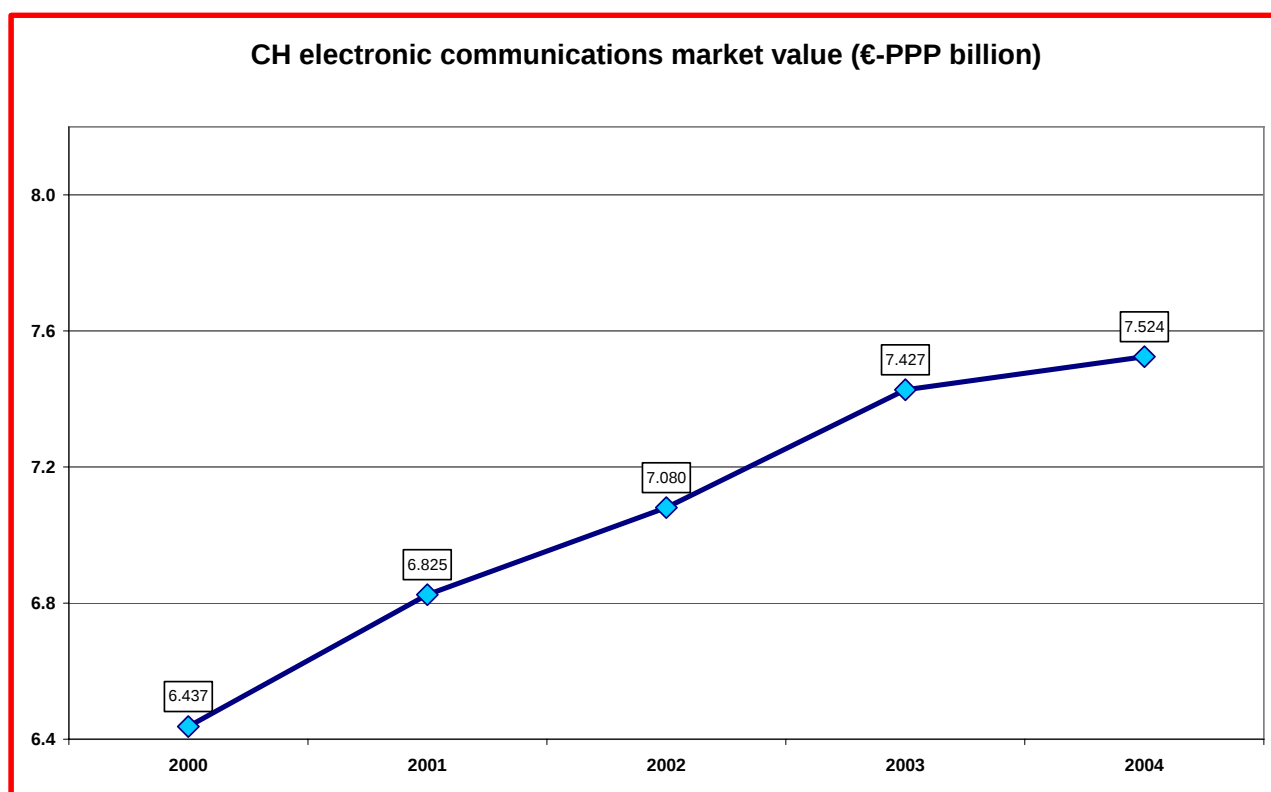
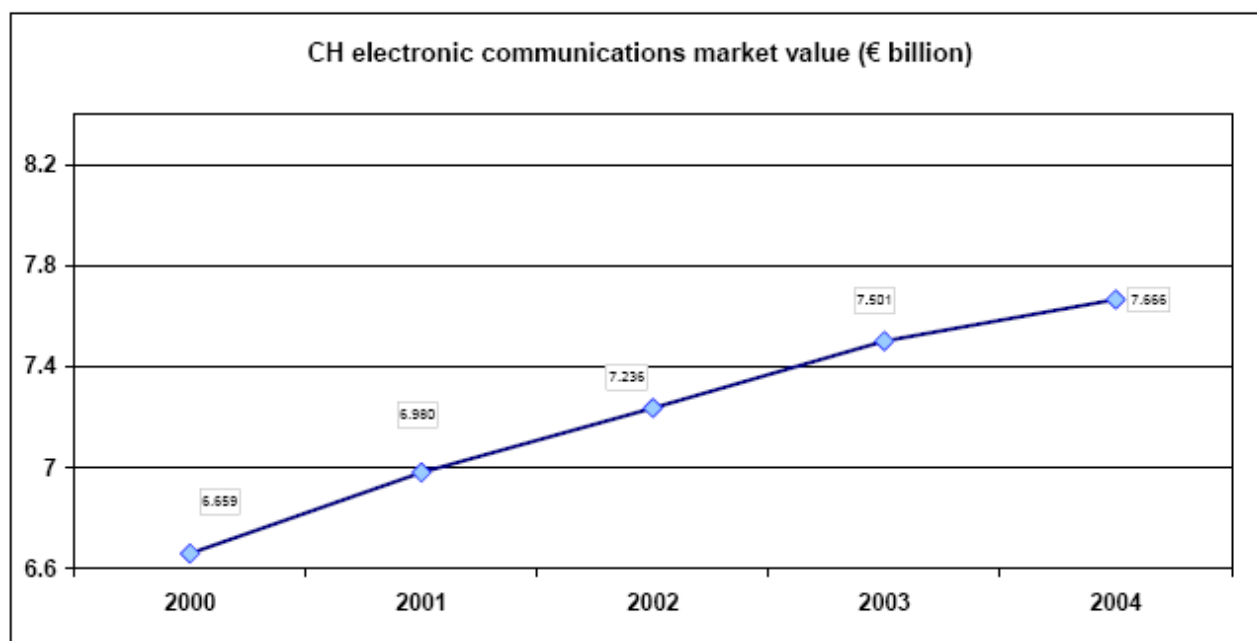


Figure 5

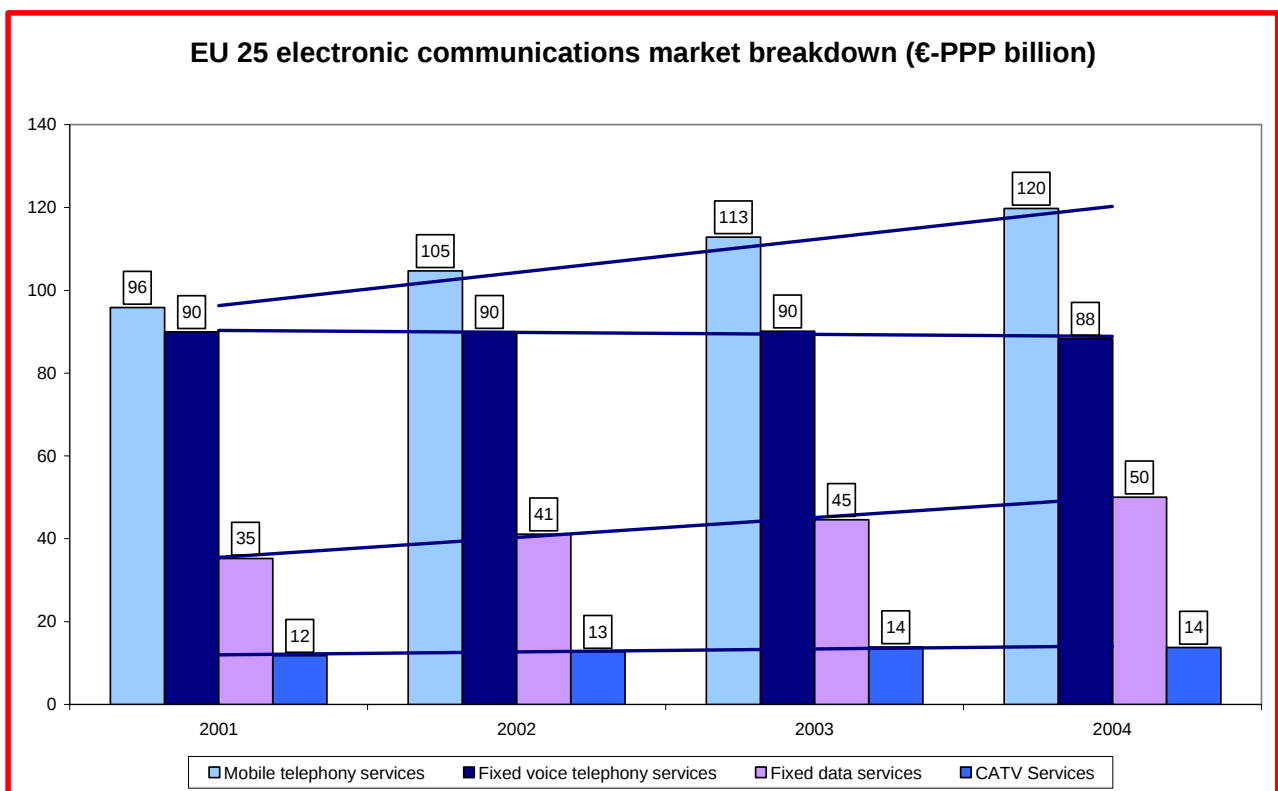
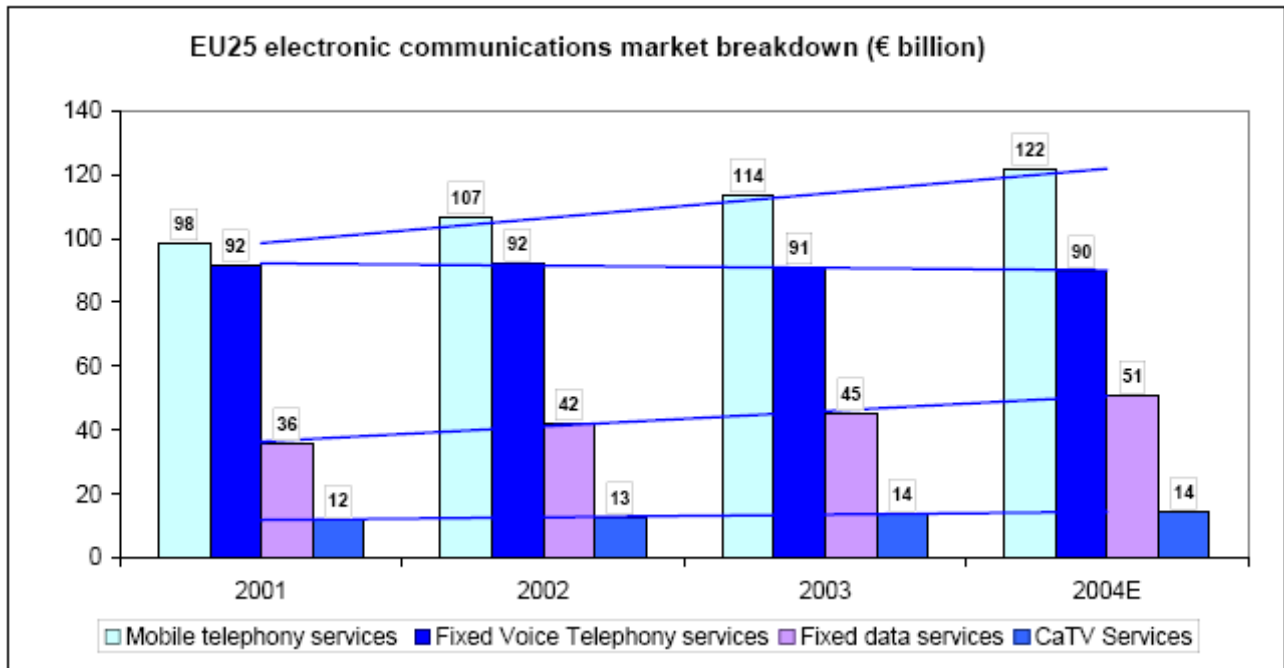


Figure 5a

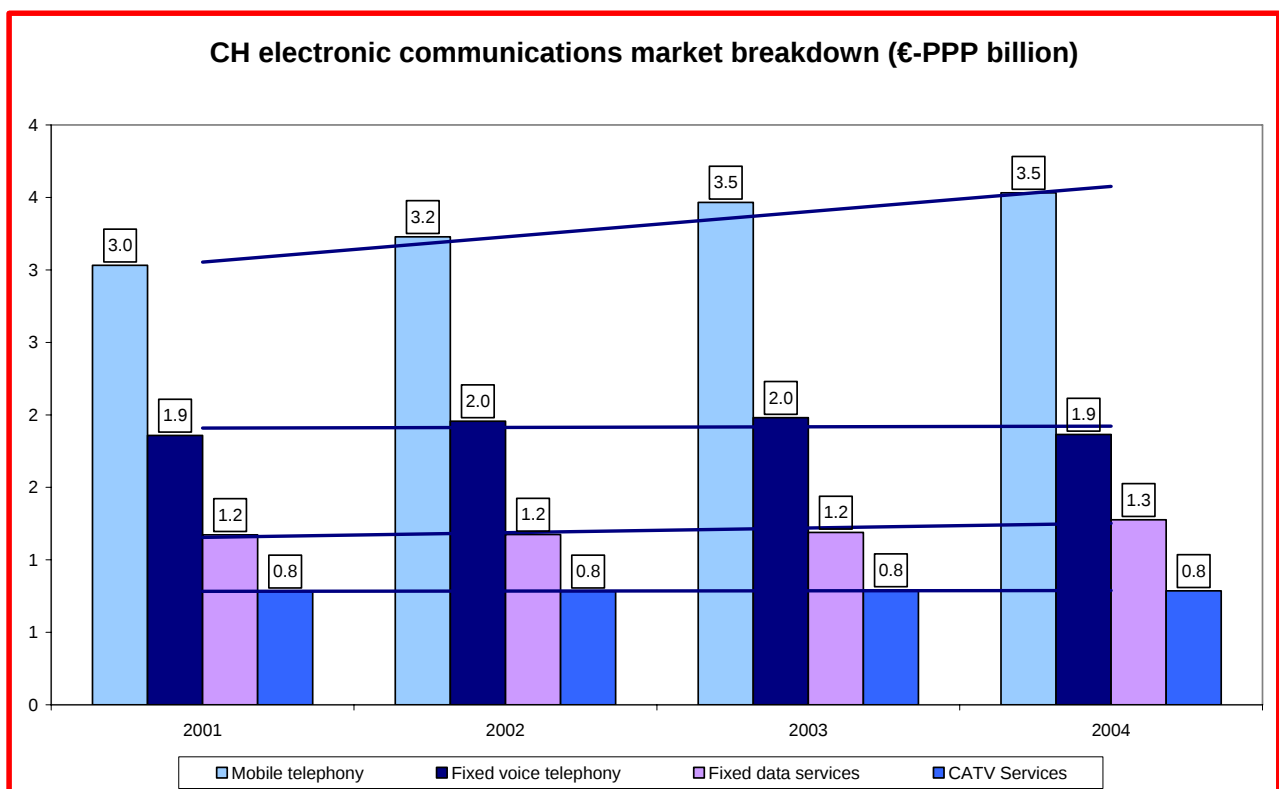
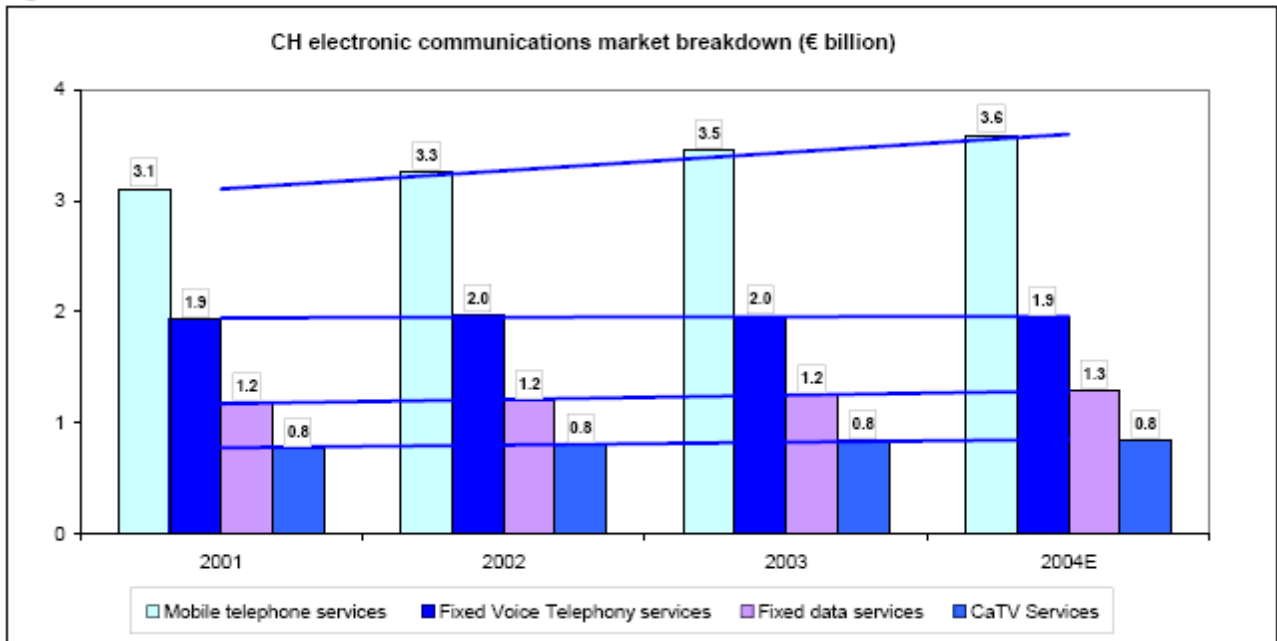


Figure 26

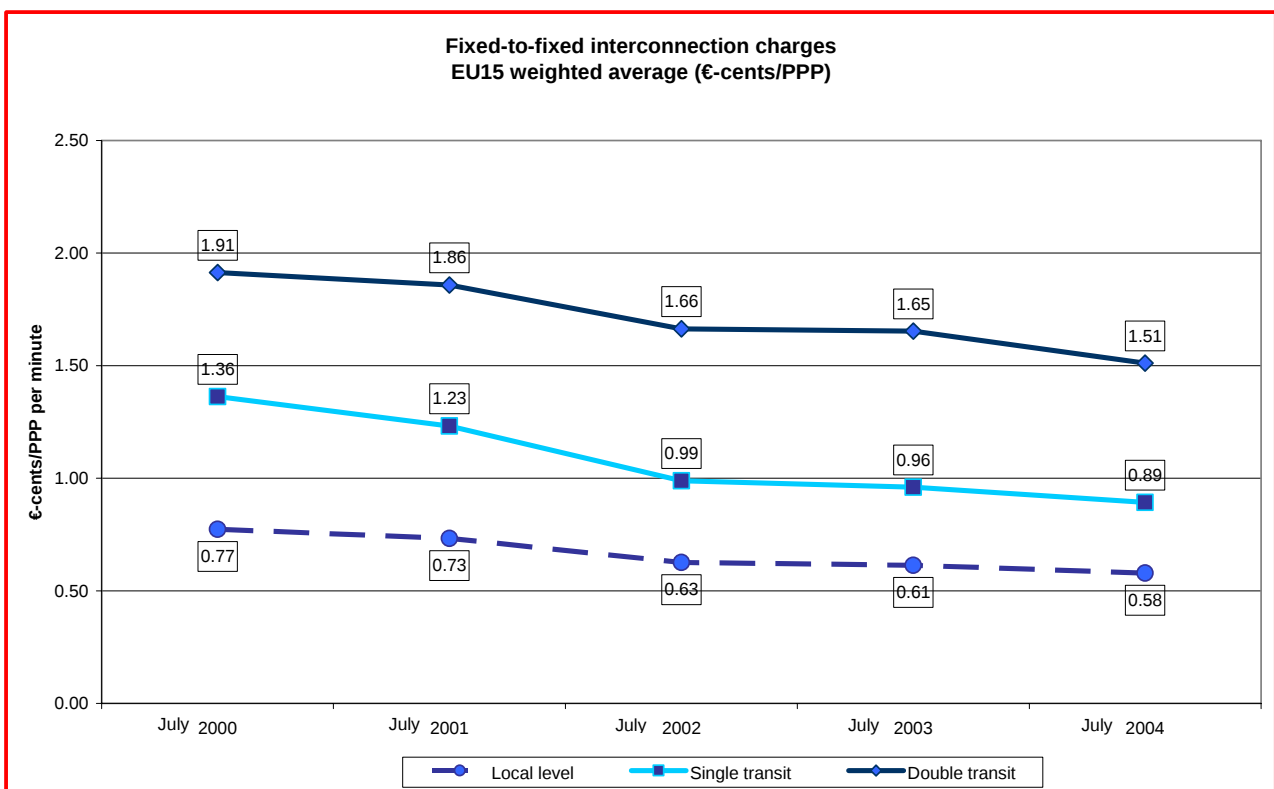
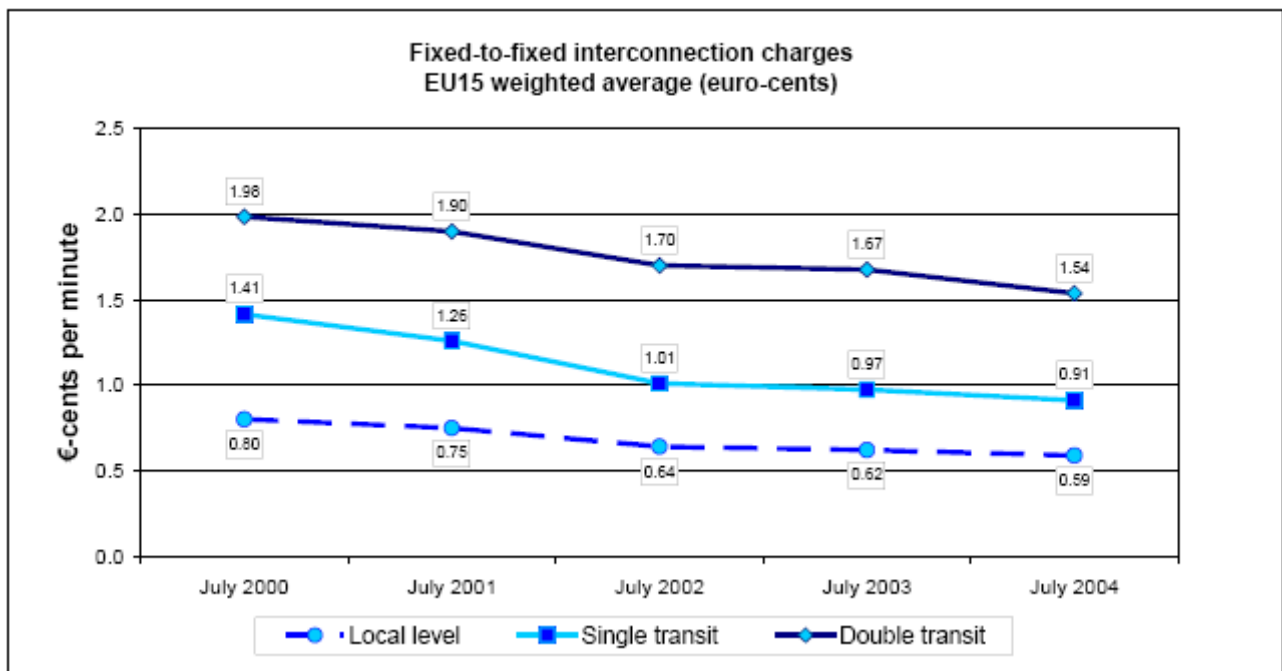


Figure 26a

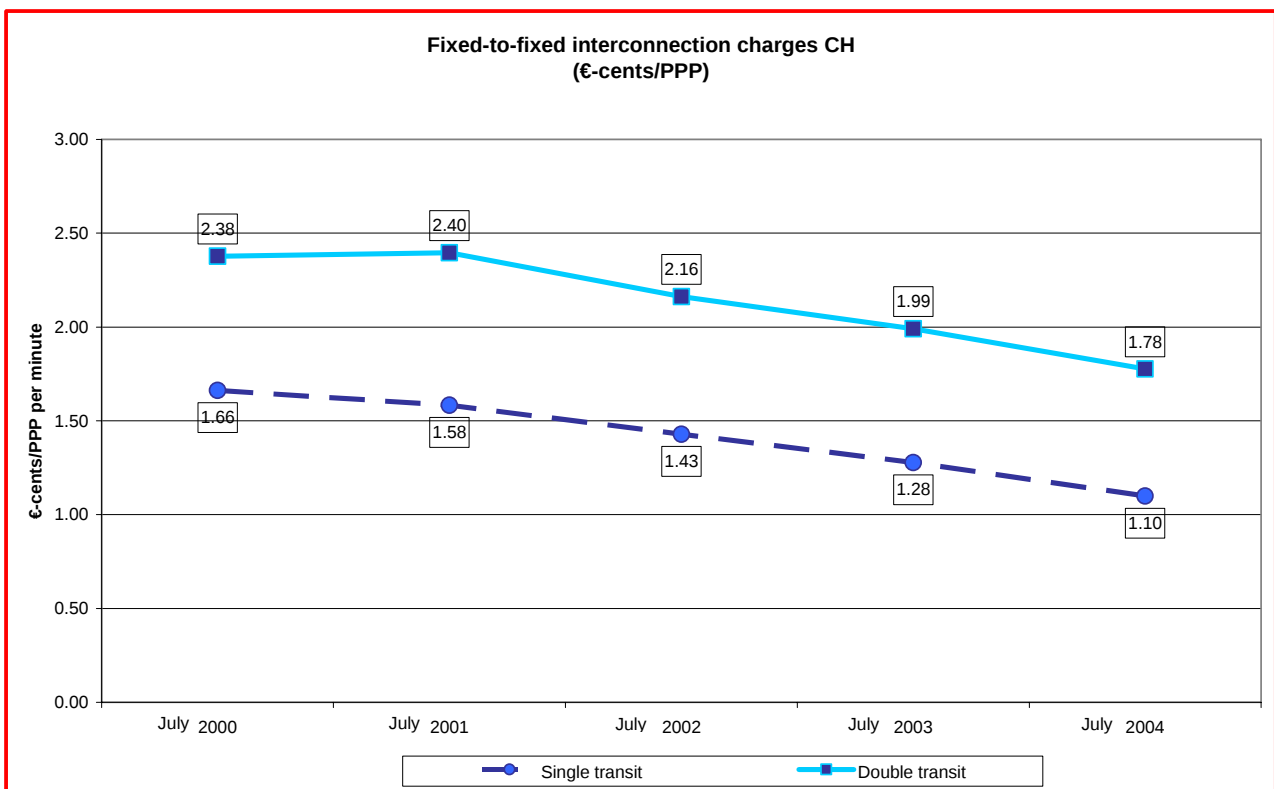
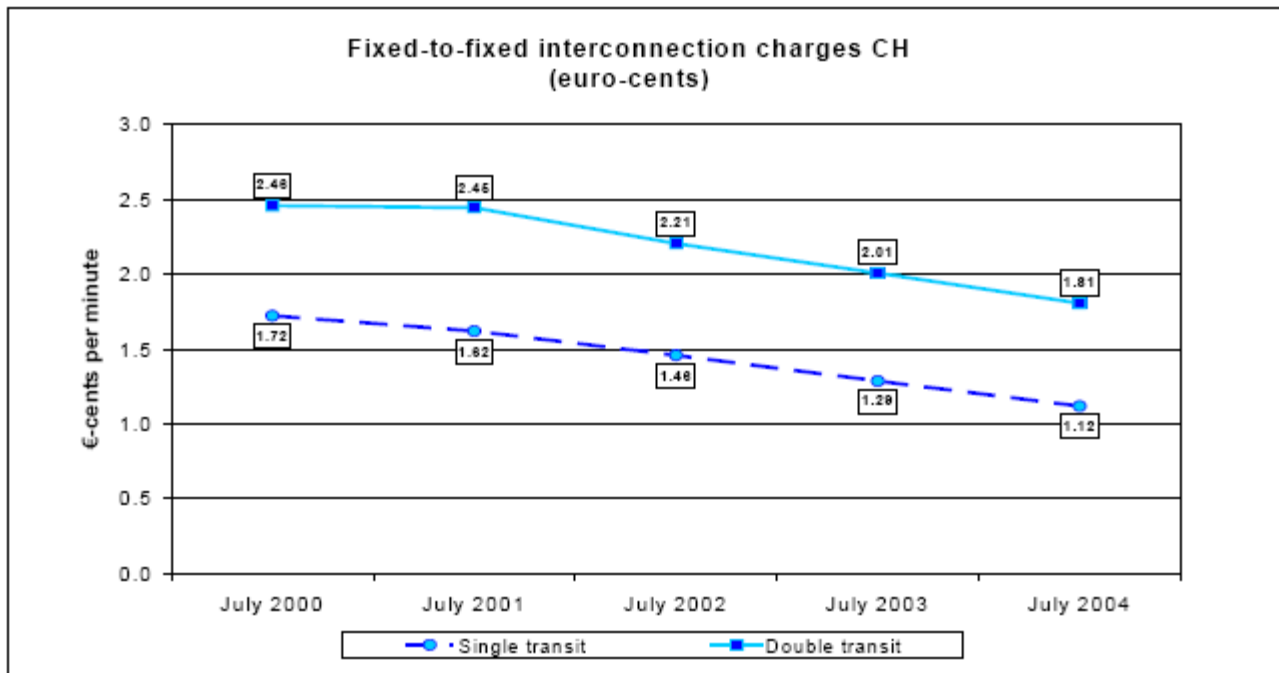
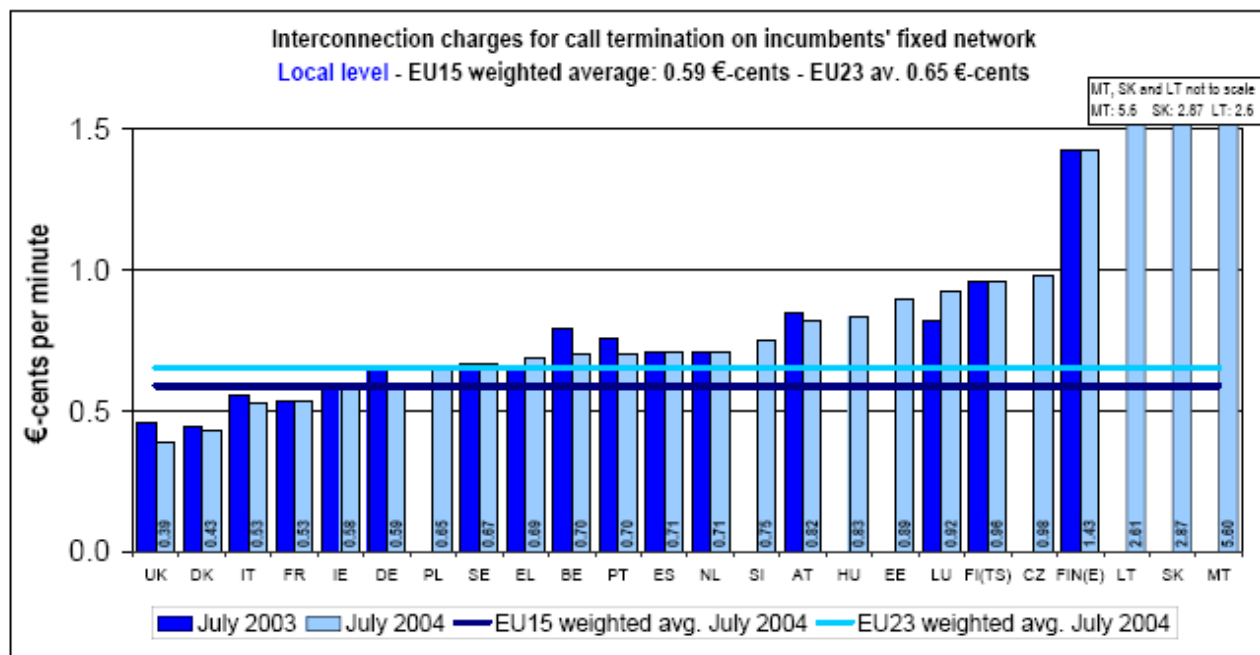


Figure 27



Cyprus, Latvia: no distinction between local and long-distance domestic calls.

Denmark, Sweden, United Kingdom: Figures for 2003 have been recalculated using the 2004 exchange rate.

Greece: Charges include the signalling and the 2Mbps Ports' cost. The audit for cost orientation for the year 2004 is in progress.

Finland: The charges of the 46 SMP operators differ. The interconnection price indicated here is based on the price of the two major SMP operators (TeliaSonera and Elisa).

Italy: Price does not include call set-up

Luxembourg: Including call set-up (not included in 2003)

Hungary: Prices refer to the main incumbent operator Matav

Malta: Only one interconnection level.

Austria: Charges according to a draft measure

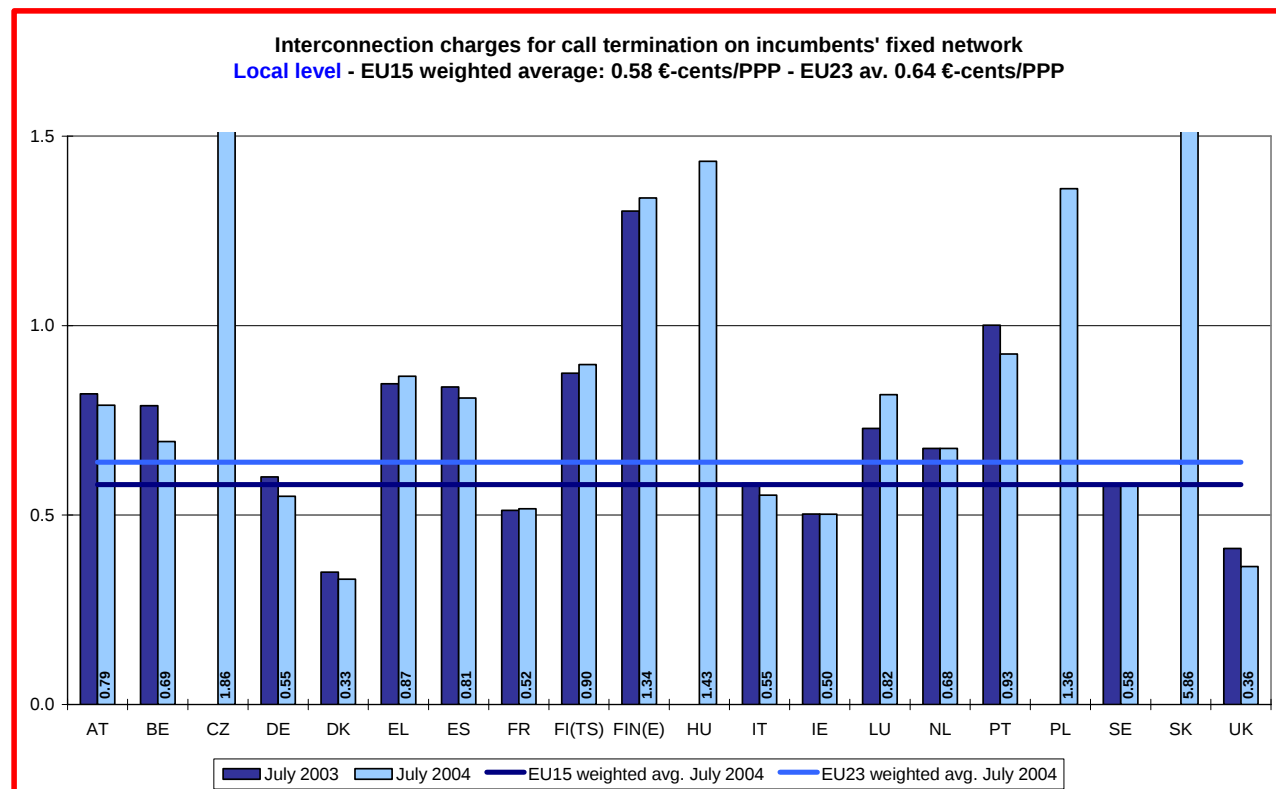
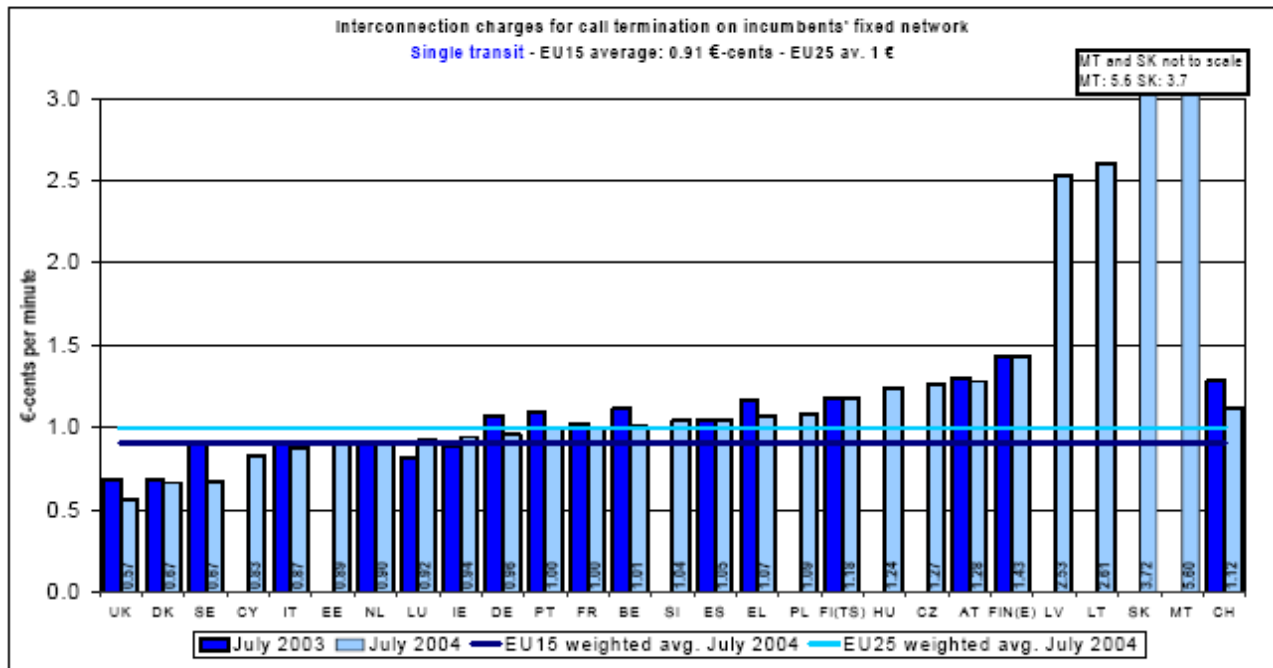


Figure 28



Denmark, Sweden, United Kingdom: Figures for 2003 have been recalculated using the 2004 exchange rate.

Greece: Charges include the signalling and the 2Mbs Ports' cost. The audit for cost orientation for the year 2004 is in progress.

Spain: All tariffs are per minute, time counted on a per-second basis. 0,0095 metropolitan traffic; 0,0105 single transit

Finland: The charges of the 46 SMP operators differ. The interconnection price indicated here is based on the price of the two major SMP operators (TeliaSonera and Elisa).

Italy: Price does not include call set-up

Luxembourg: Including call set-up (not included in 2003)

Hungary: Prices refer to the main incumbent operator Matav

Malta: Only one interconnection level.

Austria: Charges according to a draft measure

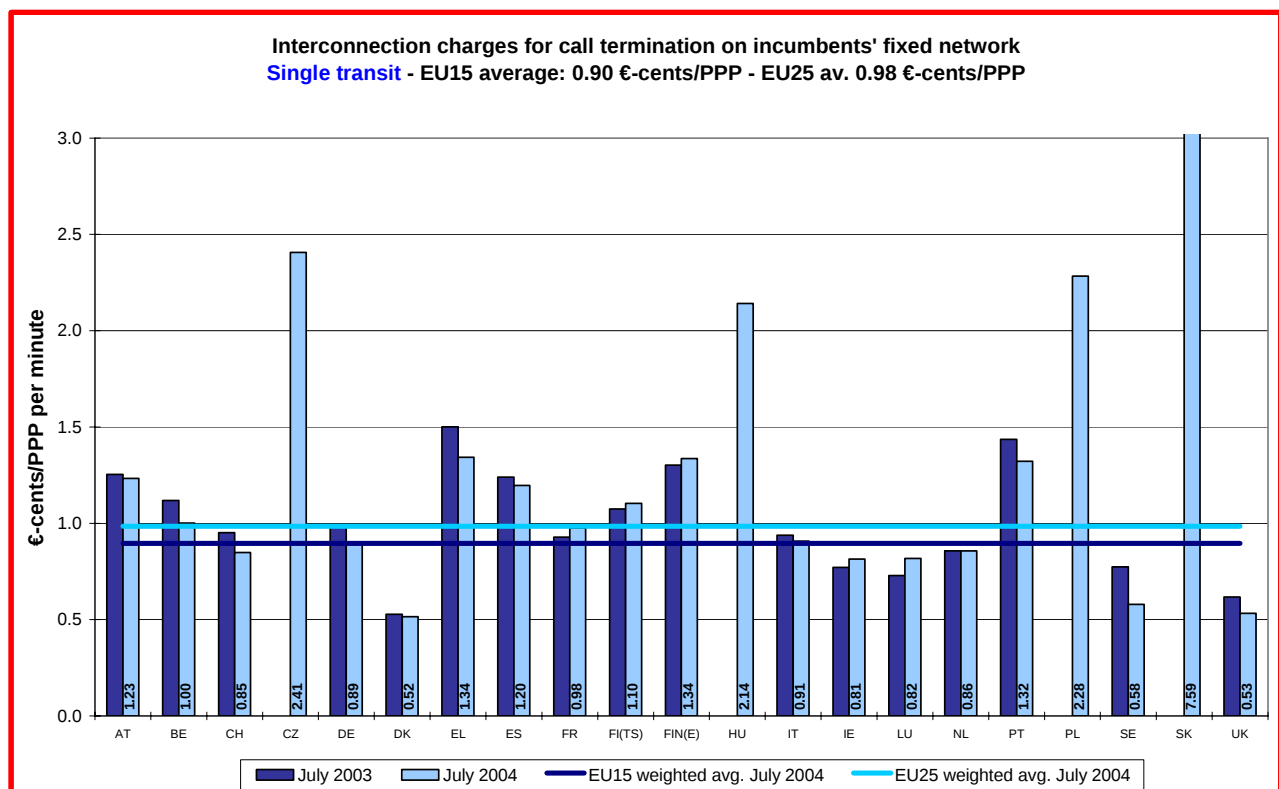
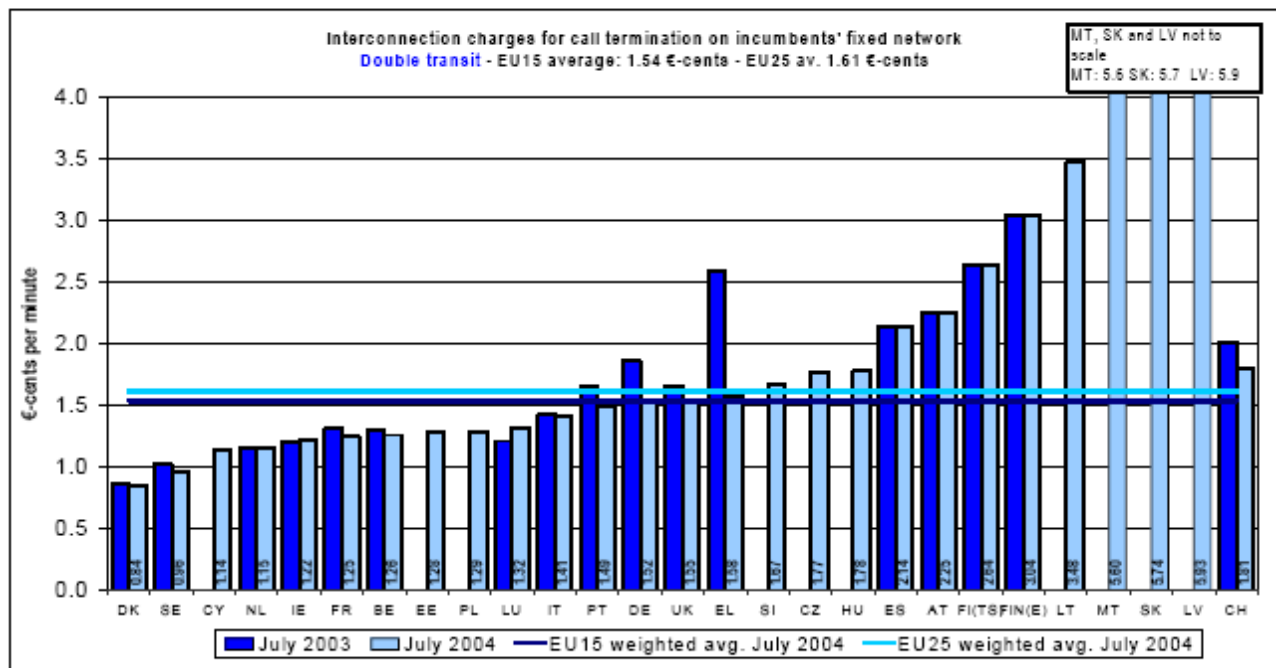


Figure 29



Denmark, Sweden, United Kingdom: Figures for 2003 have been recalculated using the 2004 exchange rate.

Greece: Charges include the signalling and the 2Mbps Ports' cost. The audit for cost orientation for the year 2004 is in progress.

Finland: The charges of the 46 SMP operators differ. The interconnection price indicated here is based on the price of the two major SMP operators (TeliaSonera and Elisa).

Italy: Price does not include call set-up

Luxembourg: Including call set-up (not included in 2003)

Hungary: Prices refer to the main incumbent operator Matav

Malta: Only one interconnection level.

Austria: Charges according to a draft measure

United Kingdom: Data refer to a connection of more than 200km. For lengths of up to 100km the interconnection charge at double transit is 0.94 euro cents; and for distance between 100 and 200km it is 1.19 euro cents.

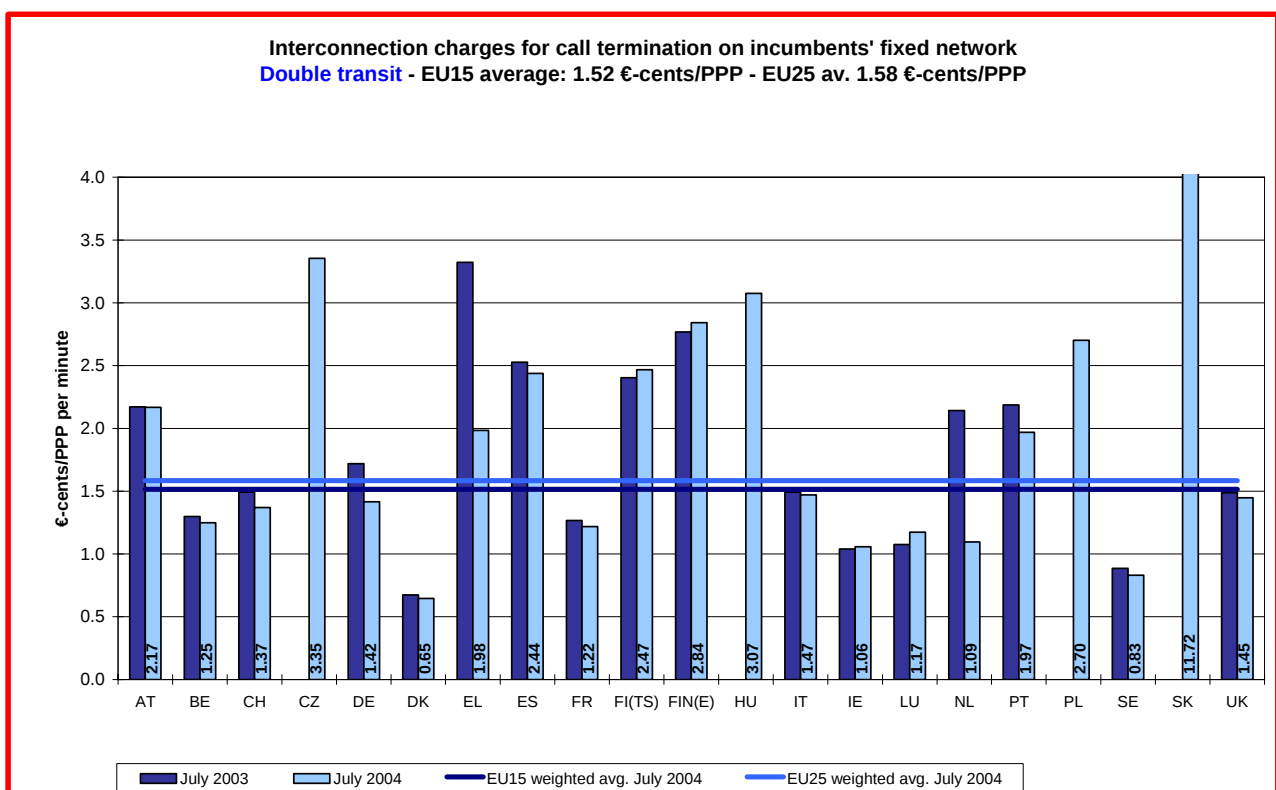


Figure 30

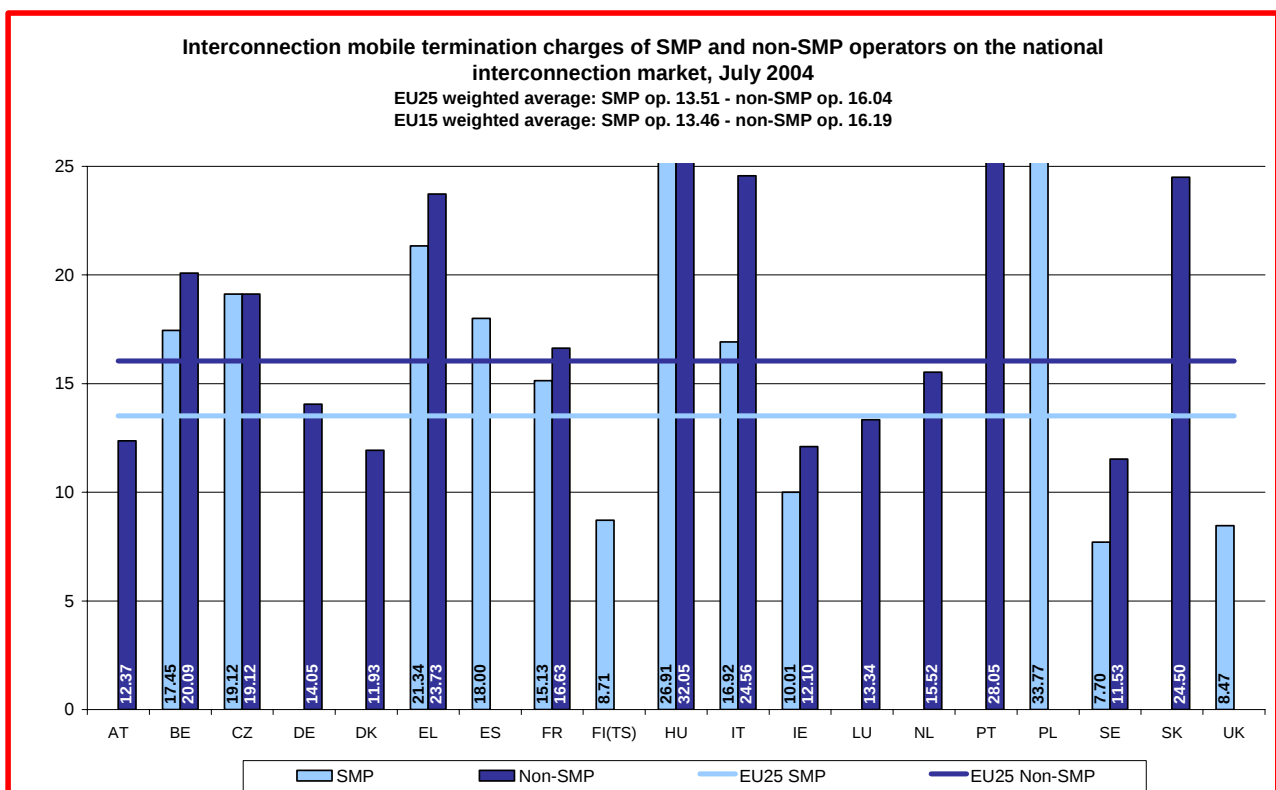
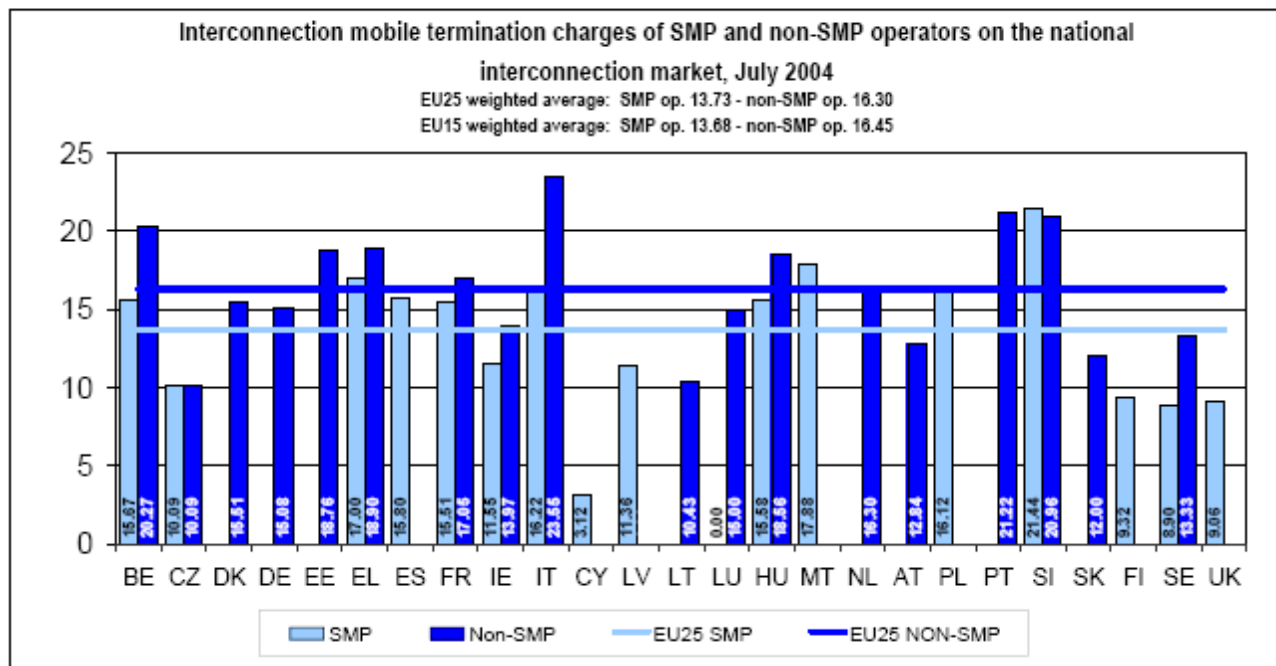


Figure 31

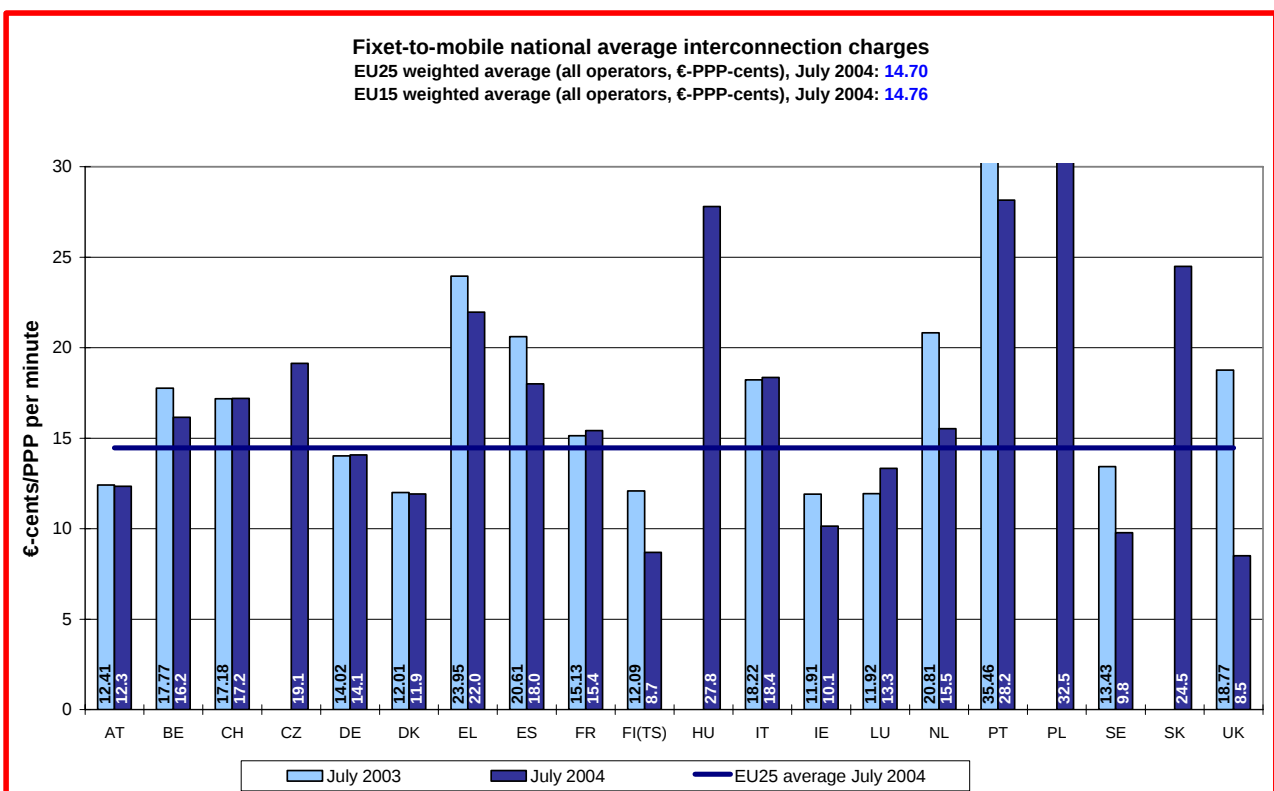
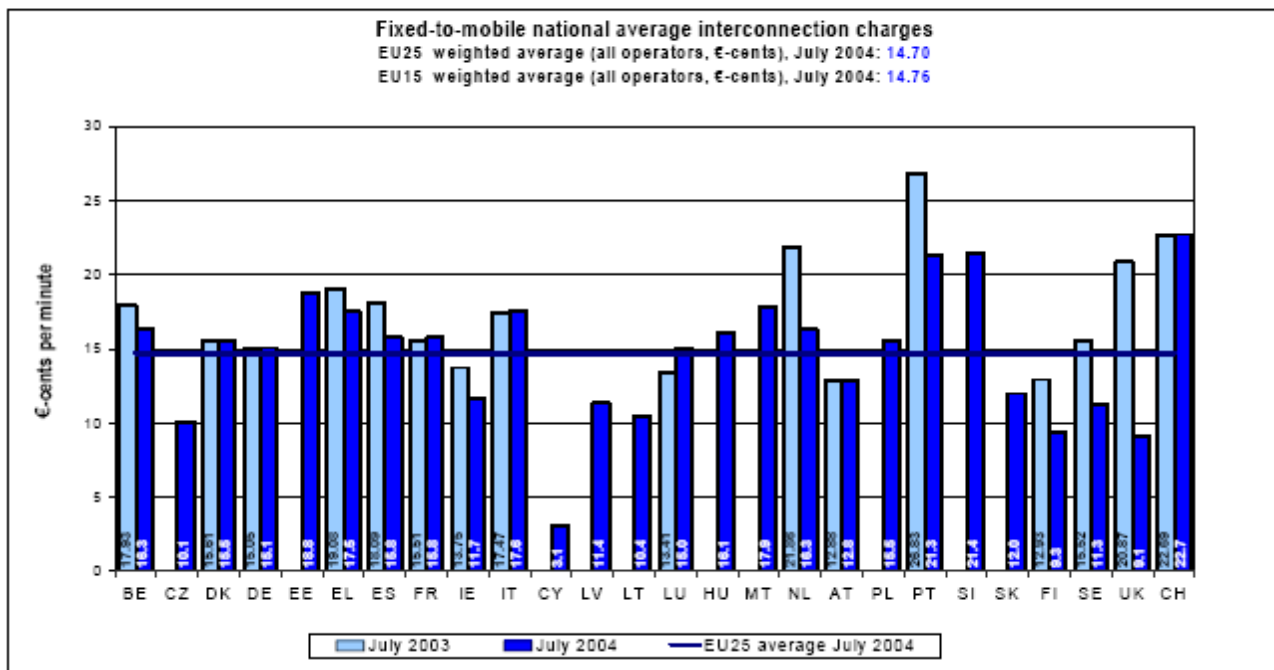


Figure 32

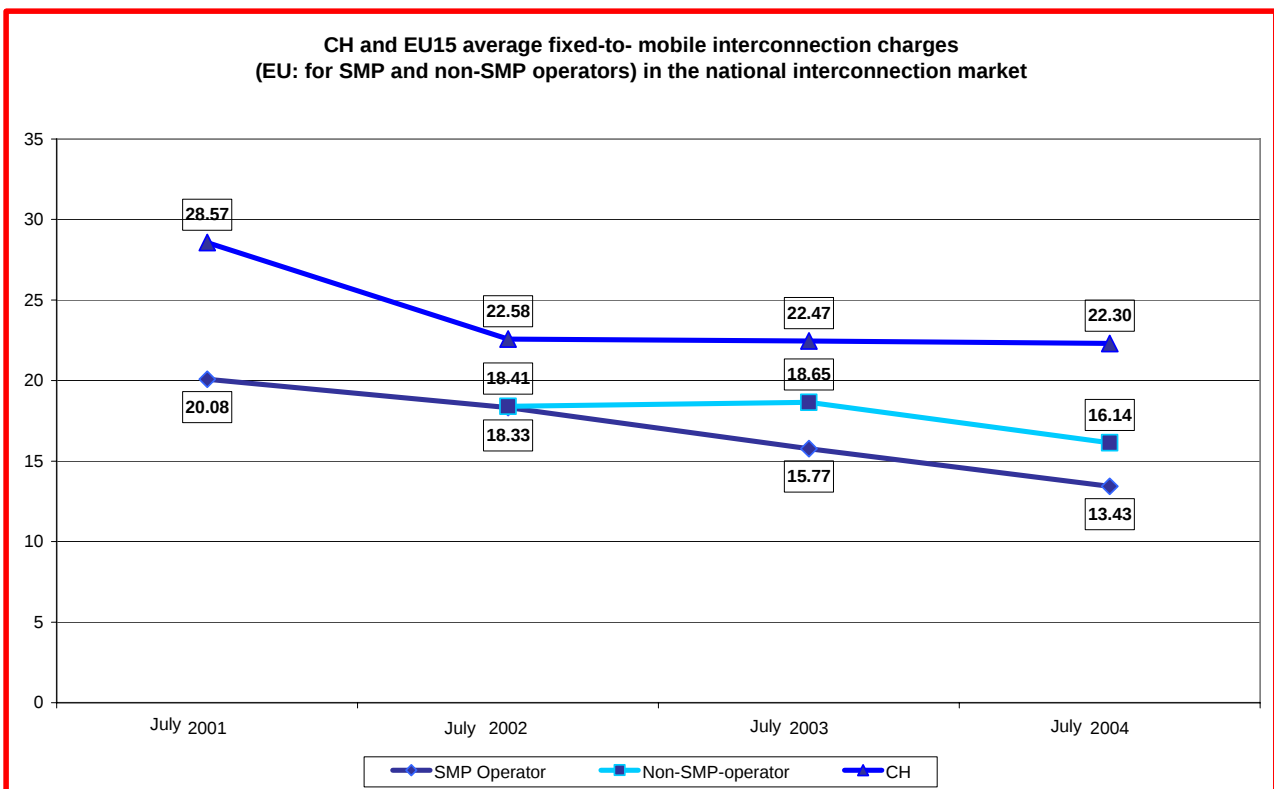
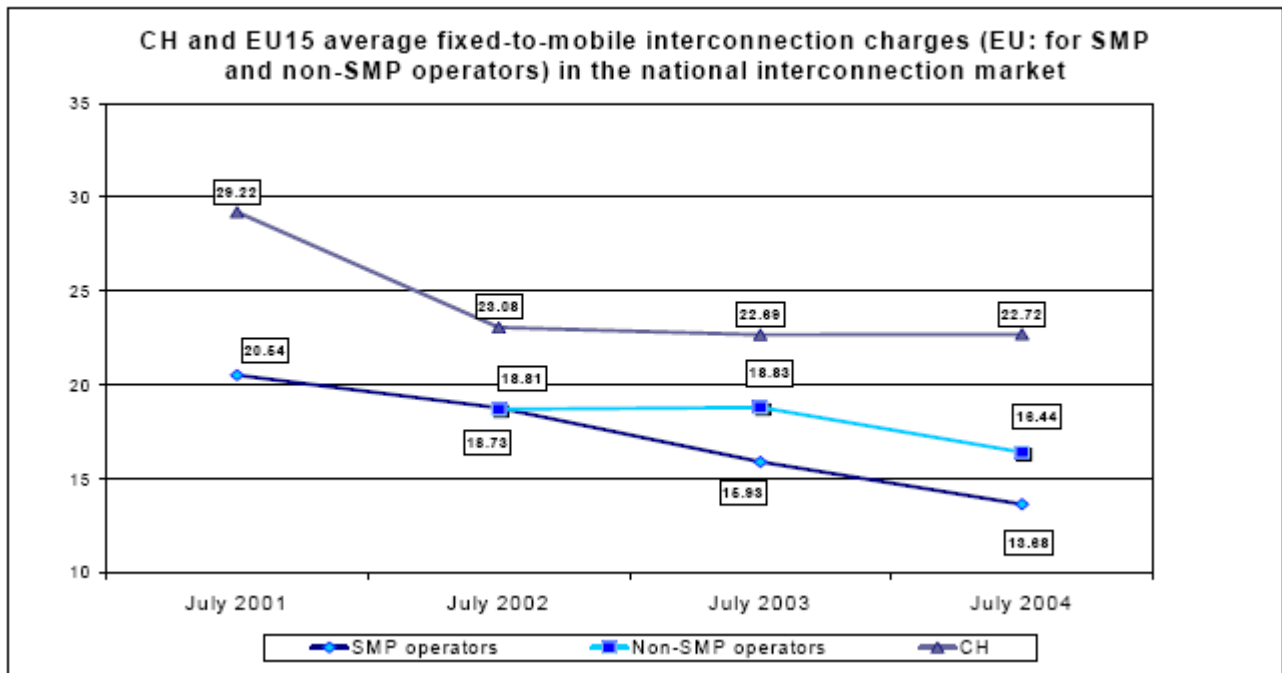
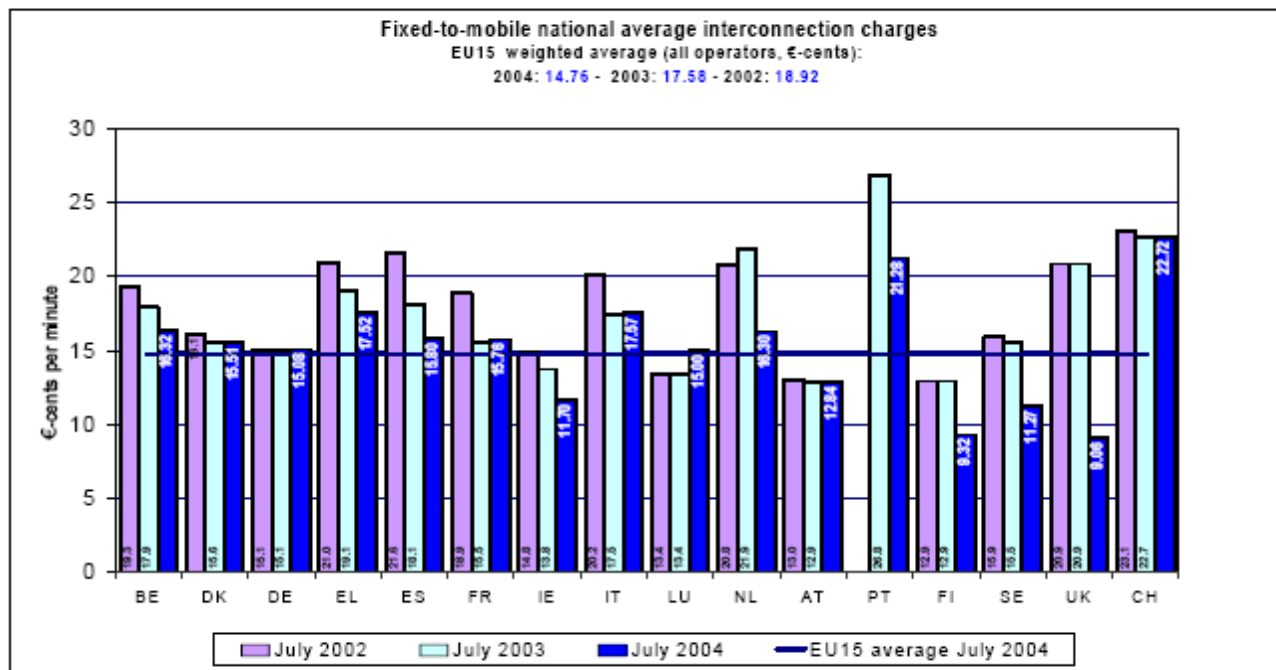


Figure 33



Figures for Denmark, Sweden and United Kingdom for 2003 have been recalculated using the 2004 exchange rates.

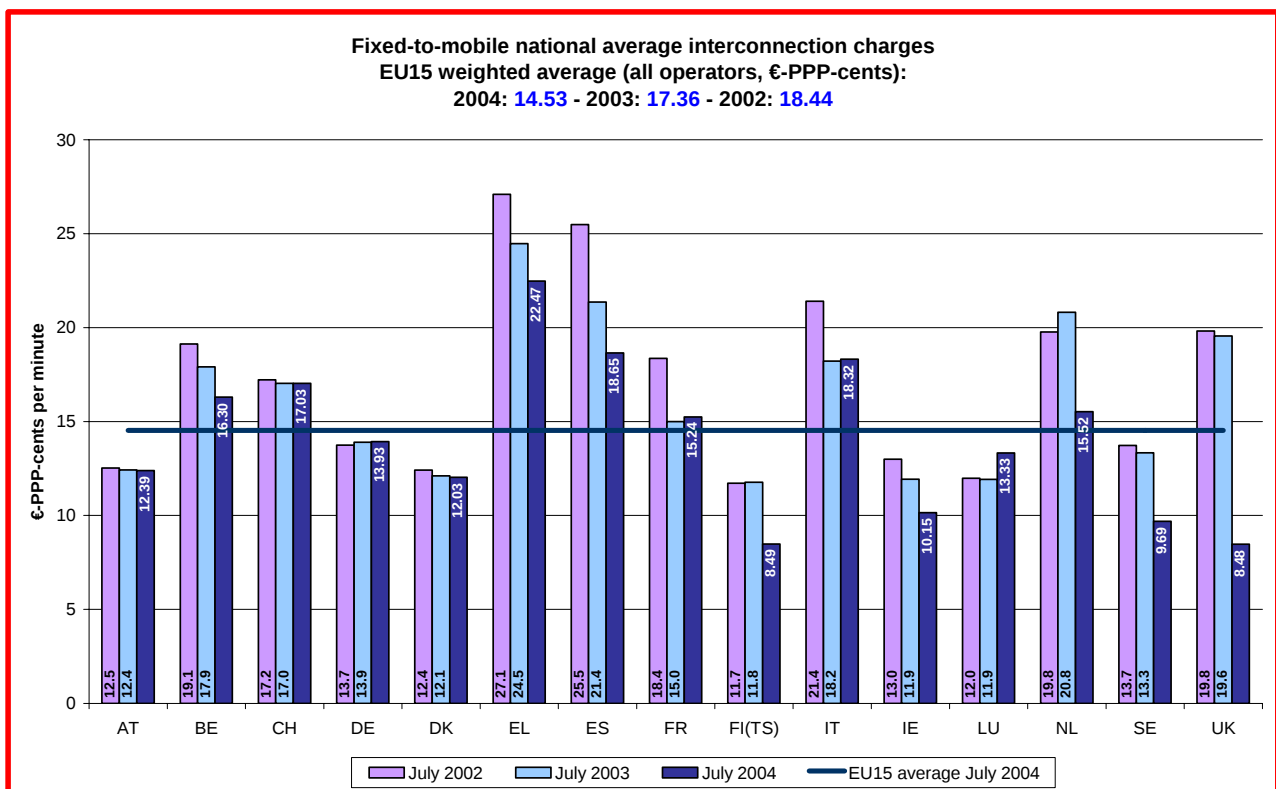
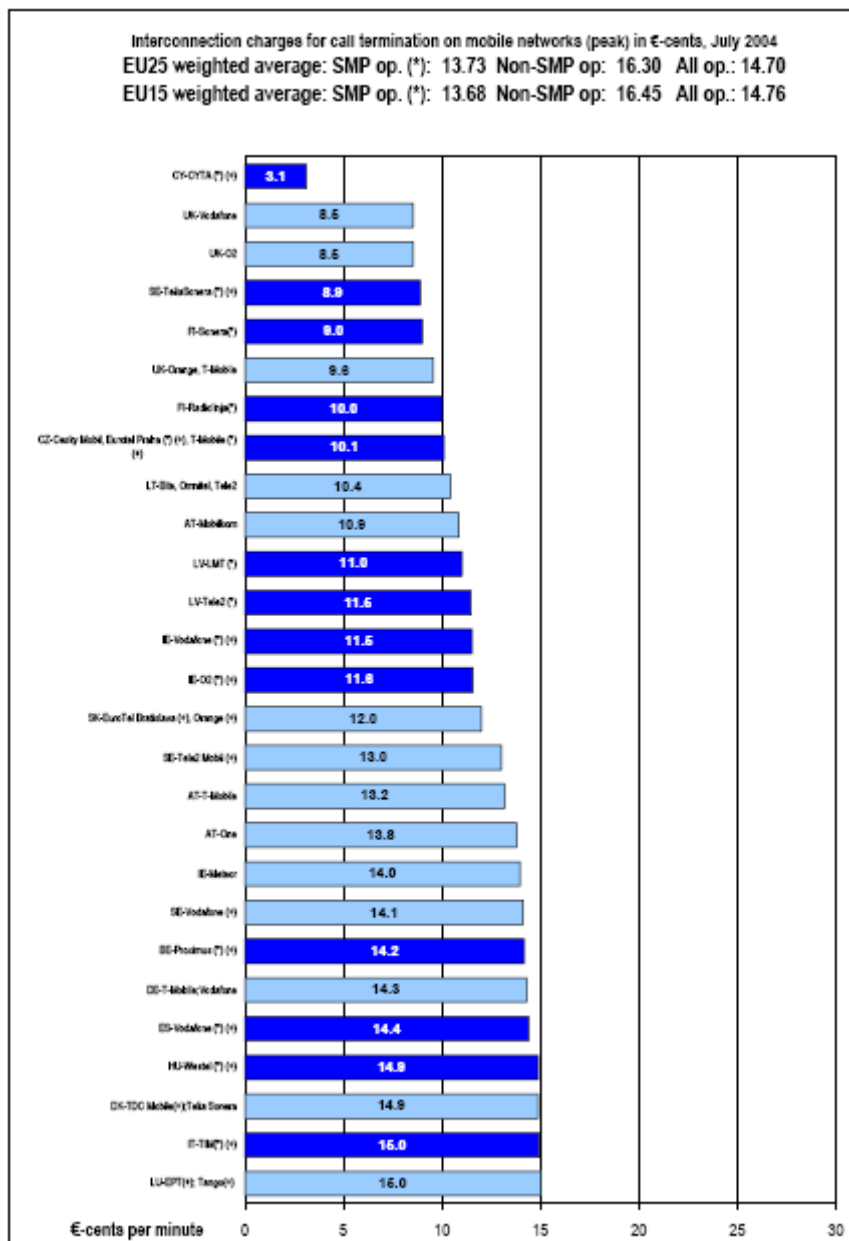


Figure 34



Legend:
 (*) SMP operators in the national interconnection market
 (+) SMP operators in the national mobile market

Interconnection charges für call termination on mobile networks (peak) in €-cents/PPP, July 2004
EU25 weighted average: SMP op. (*): 13.51 Non-SMP op: 16.04 All op.: 14.47
EU15 weighted average: SMP op. (*) 13.46 Non-SMP op: 16.19 All op.: 14.53

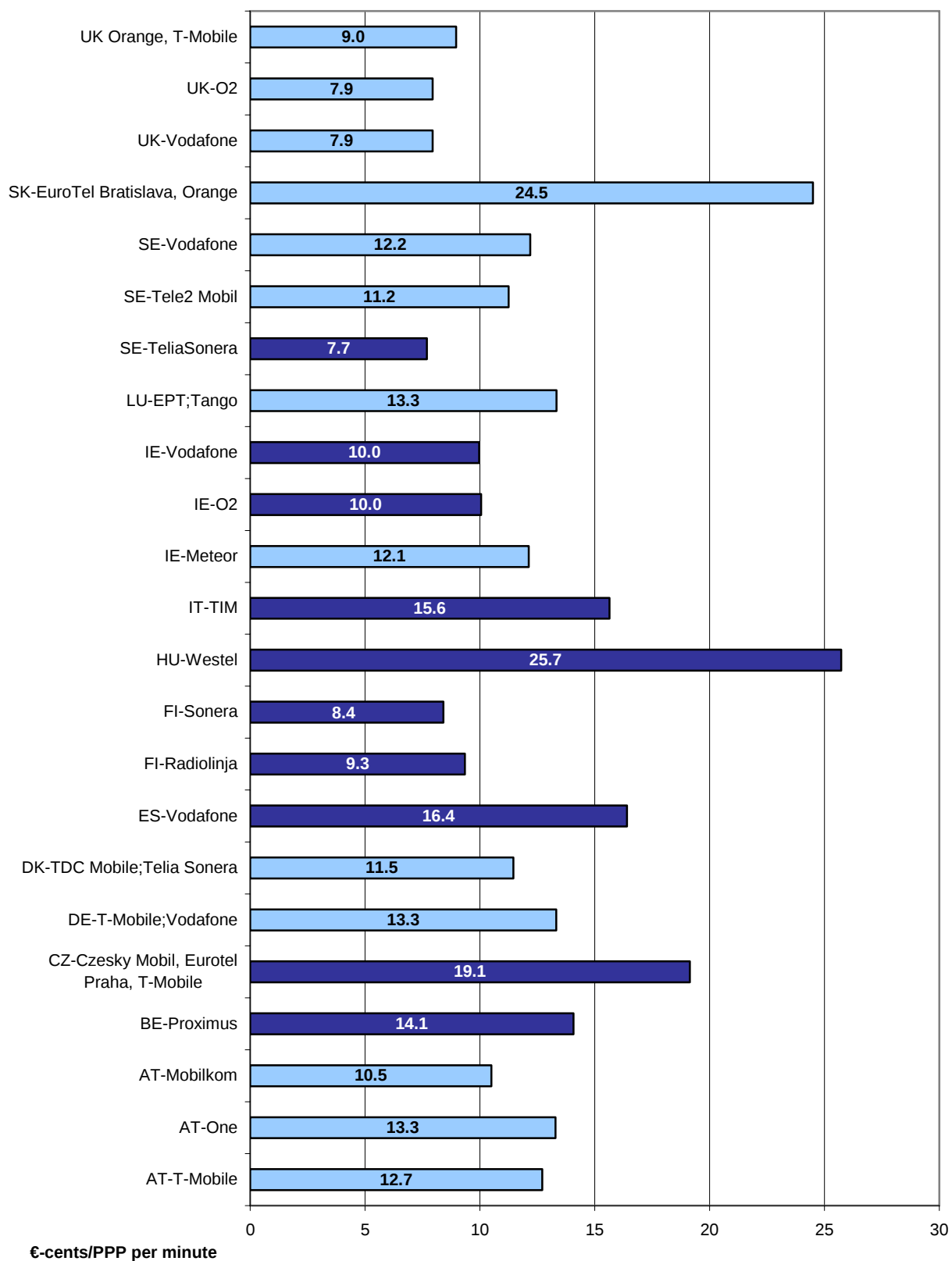
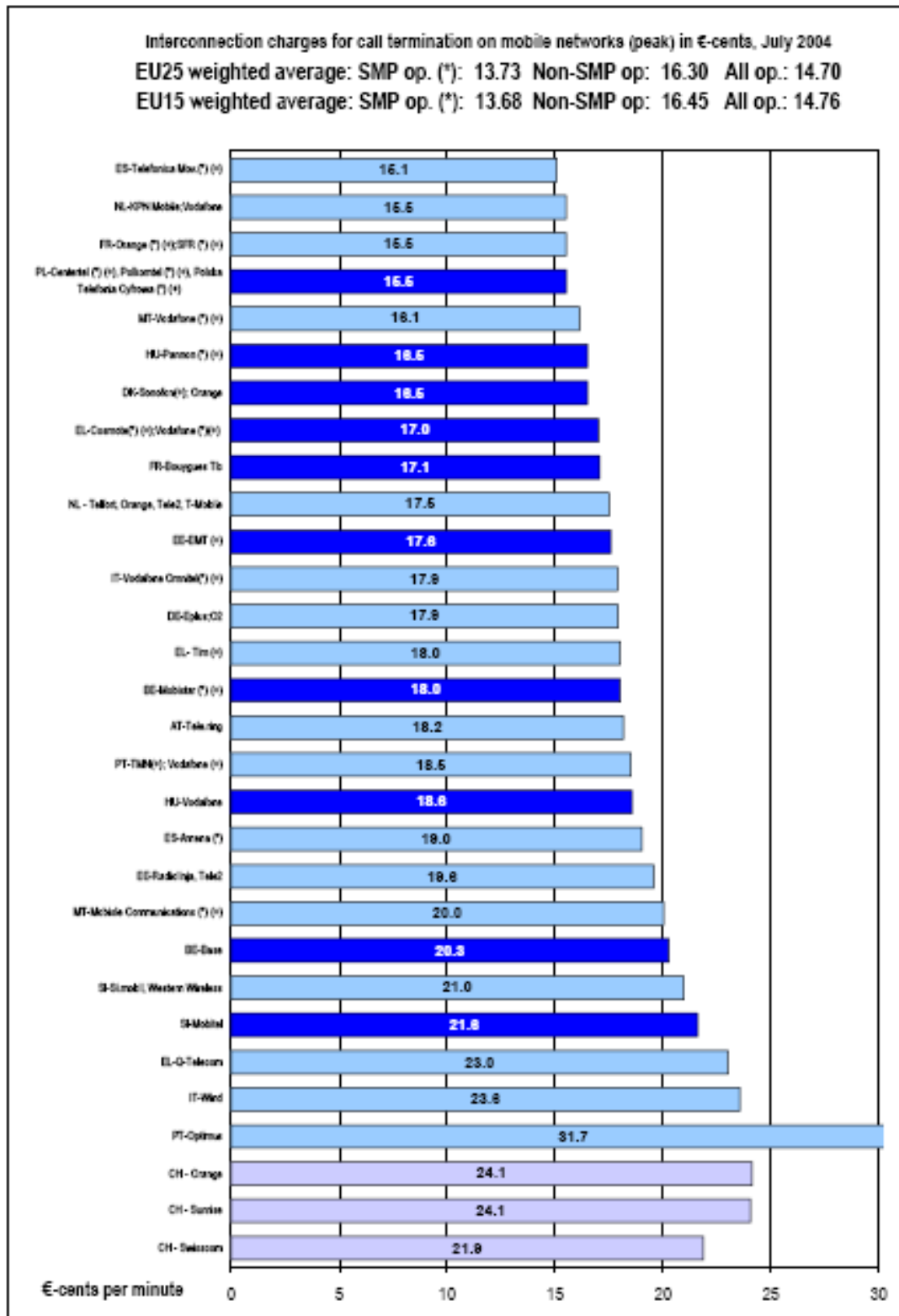


Figure 35



Legend:

(*) SMP operators in the national interconnection market

(+) SMP operators in the national mobile market

Figures for the Netherlands, Ireland and Lithuania are not strictly comparable with the others since they represent an average peak/off-peak rate.

Czech Republic: Prices since 1 April 2004

Germany: Data from Cullen International Cross Country Analysis (June 2004, Table 34, Page 180)

Interconnection charges für call termination on mobile networks (peak) in €-cents/PPP, July 2004
EU25 weighted average: SMP op. (*): 13.51 Non-SMP op: 16.04 All op.: 14.47
EU15 weighted average: SMP op. (*) 13.46 Non-SMP op: 16.19 All op.: 14.53

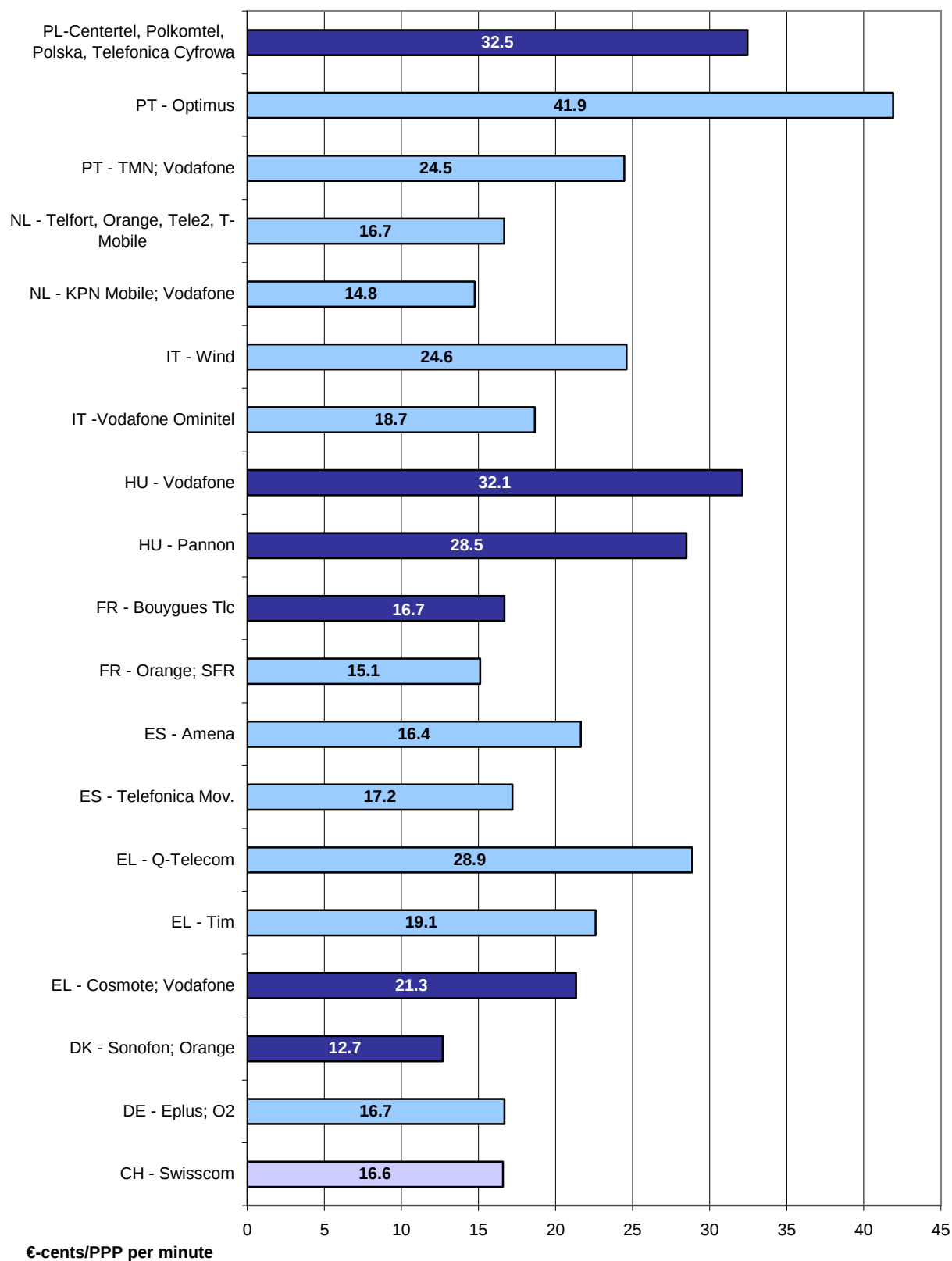
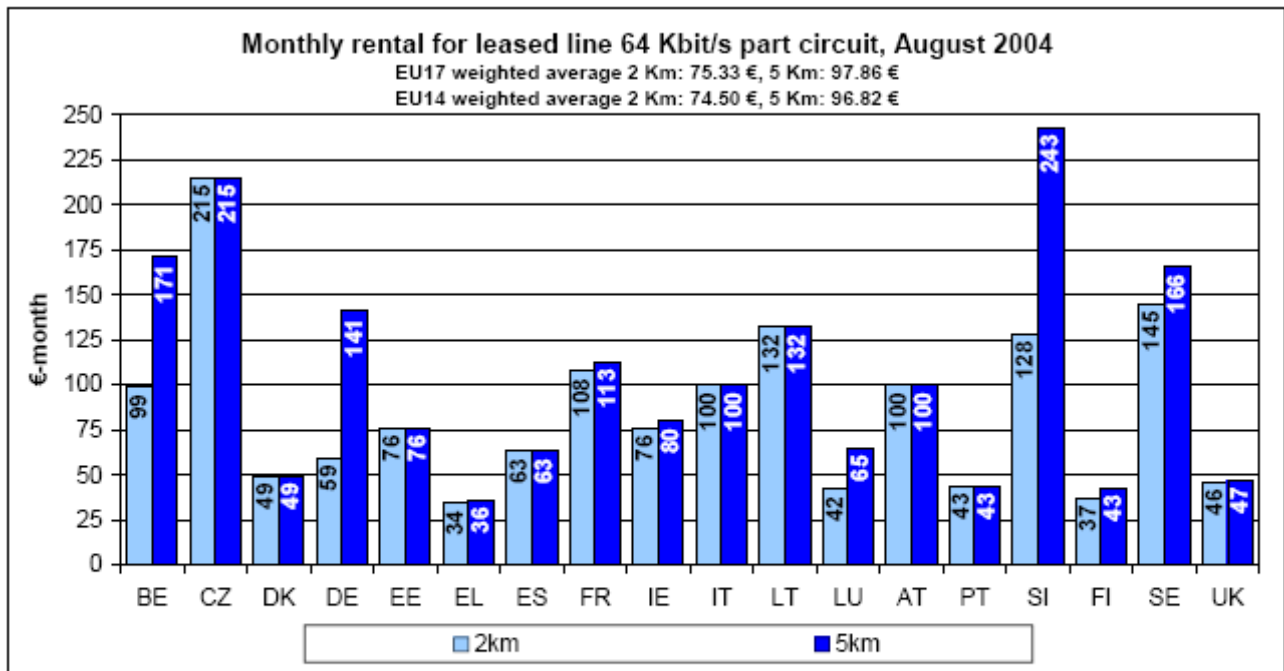


Figure 36



Czech Republic: Individual price

Latvia: IC circuits not offered

Lithuania: The price does not depend on the length of the line

The Netherlands: Data for local access is not available. The price for a regional service (~25 Km) is € 140.

Slovakia: 64 Kb/s IC circuits not available

Cyprus, Hungary, Malta, Poland: Data not available

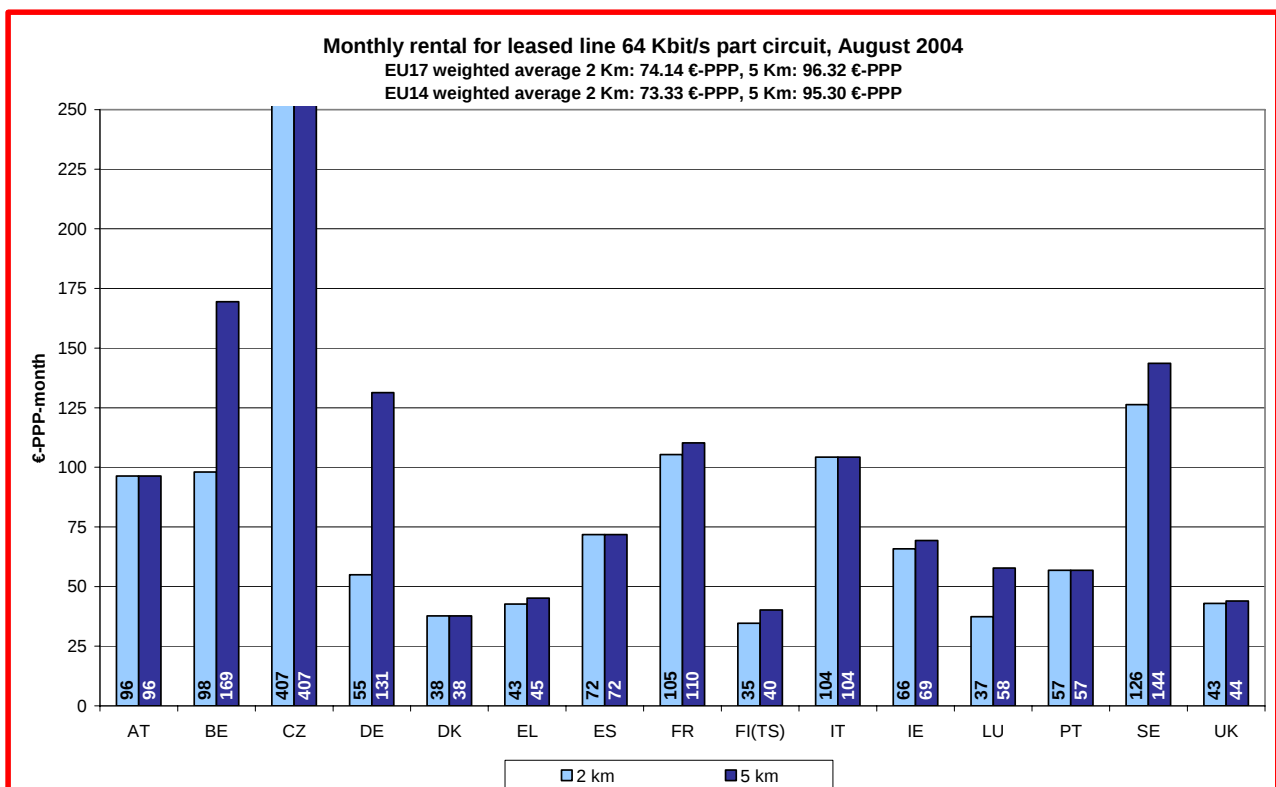
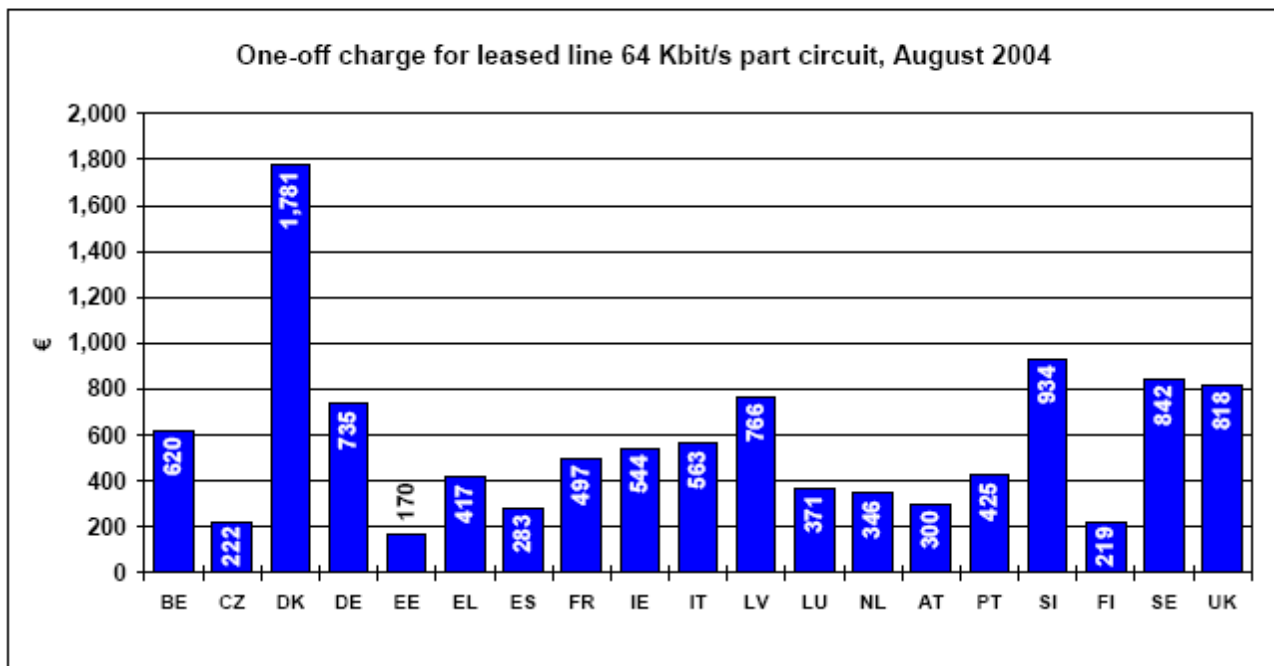


Figure 37



Denmark: Weighted average of the one-off connection costs
 Slovakia: 64 Kb/s IC circuits not available
 Cyprus, Lithuania, Hungary, Malta, Poland: No data available

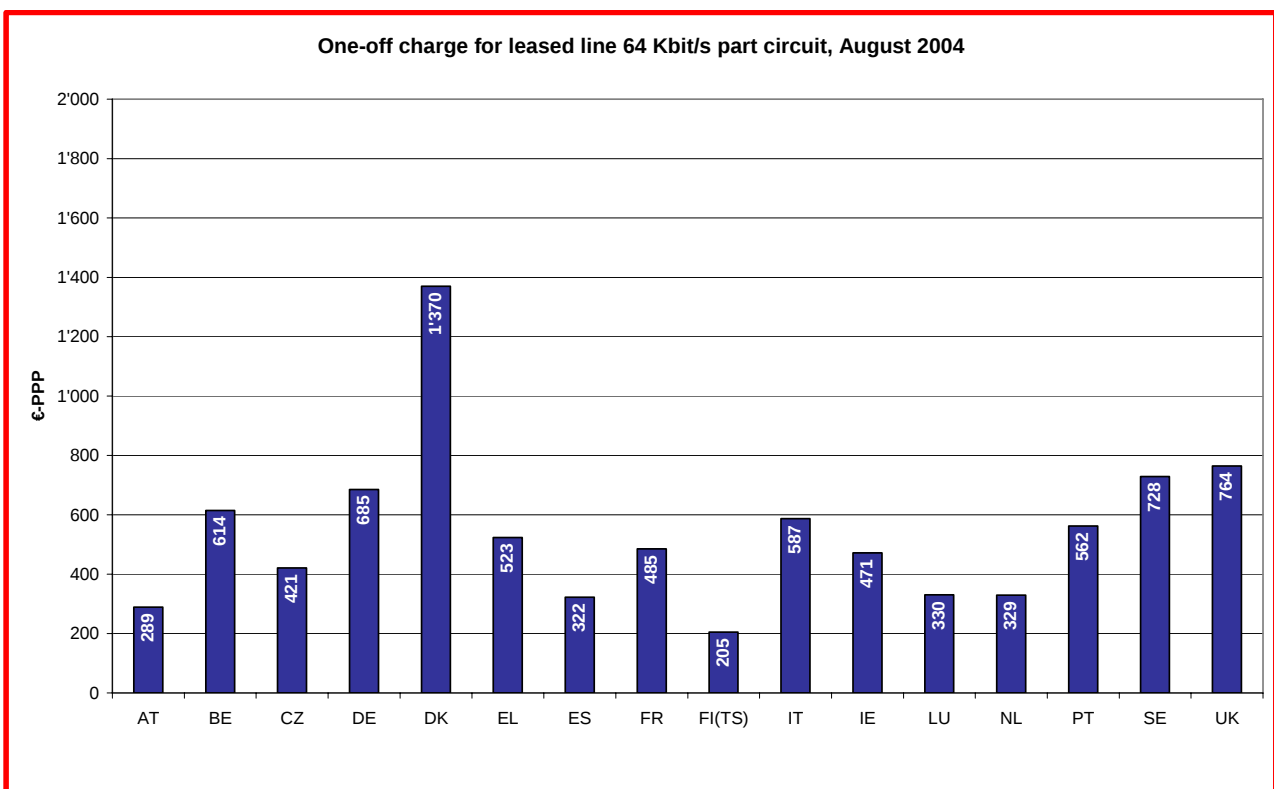
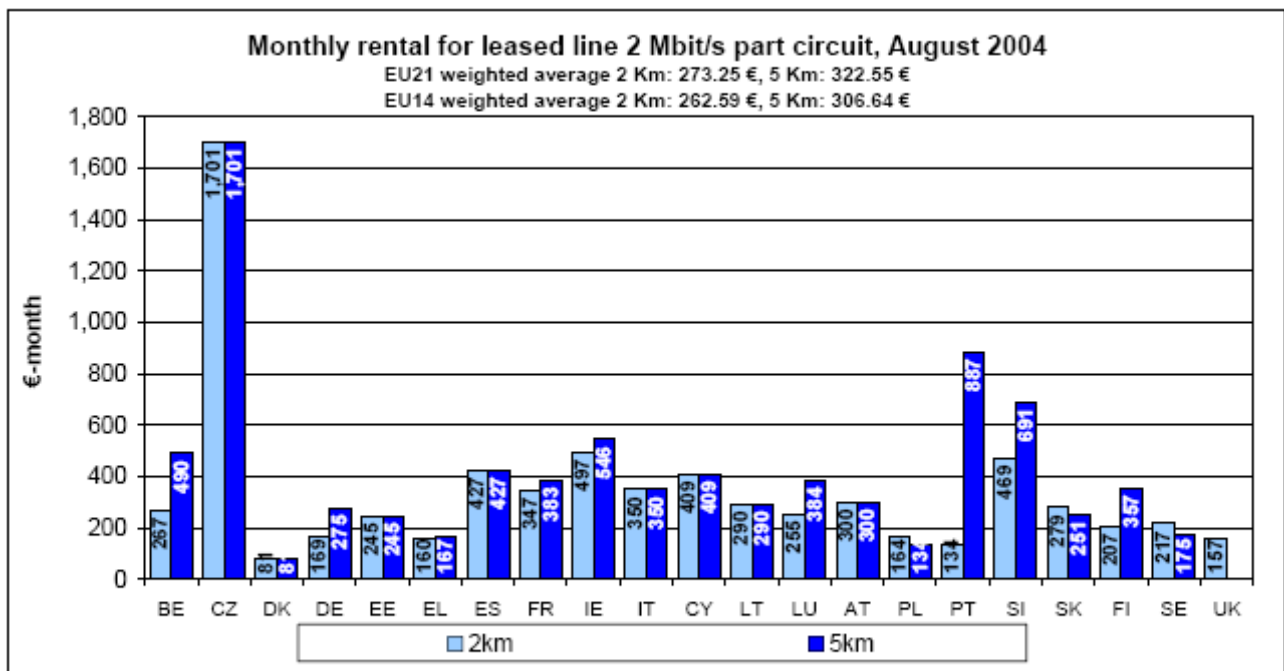


Figure 38



Hungary, Malta: Data not available

Latvia: IC circuits not offered

Lithuania: The price does not depend on the length of the line

The Netherlands: Price per local access (not per Km)

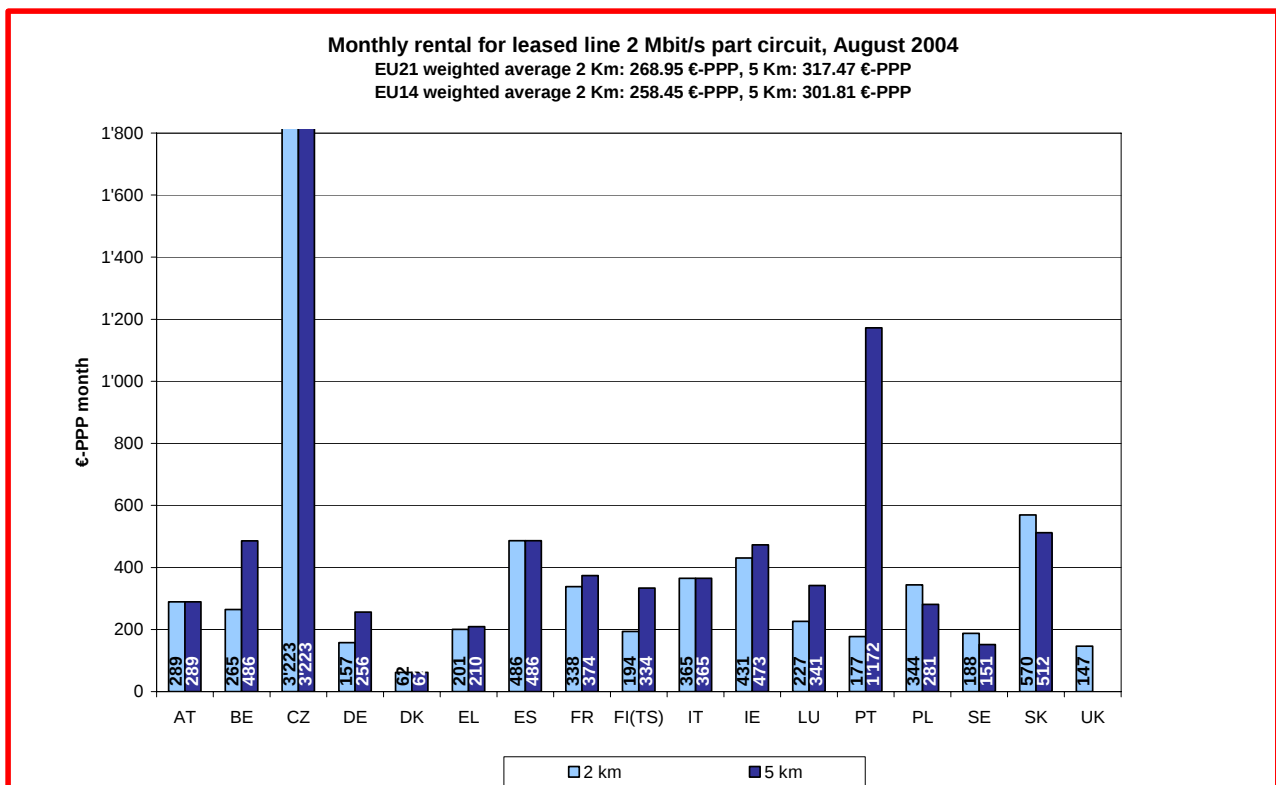
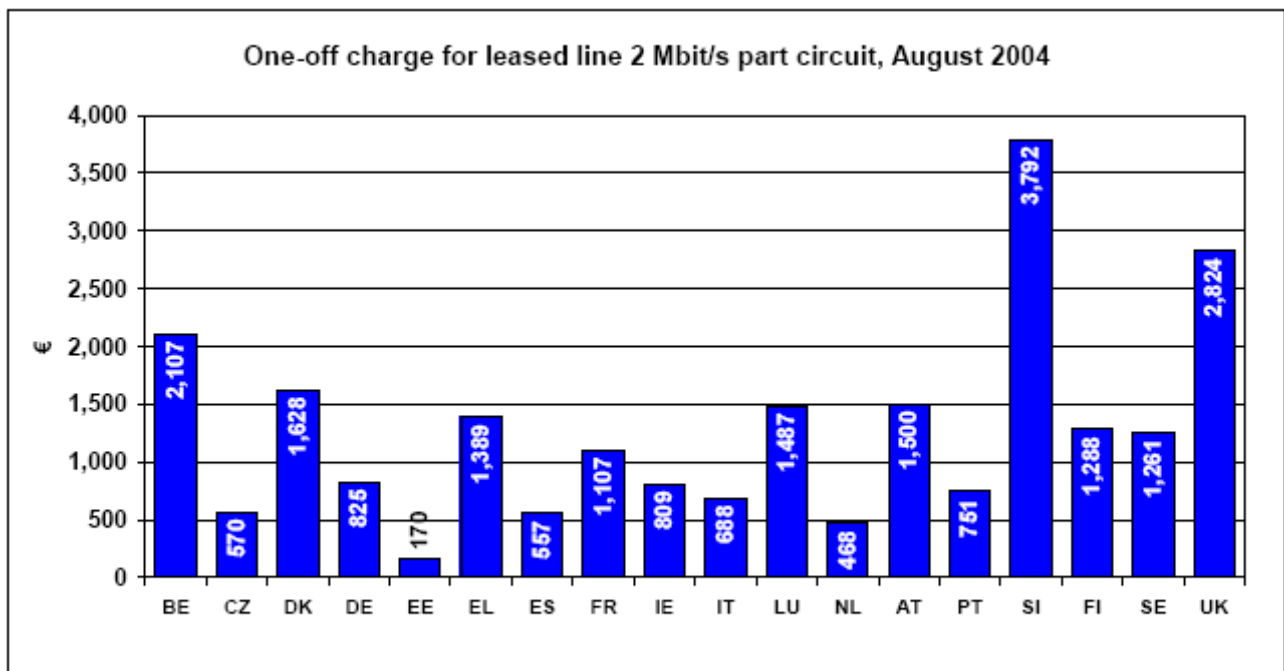


Figure 39



Denmark: Weighted average of the one-off connection costs

Latvia: IC circuits not offered

Cyprus, Lithuania, Hungary, Malta, Poland, Slovakia: Data not available

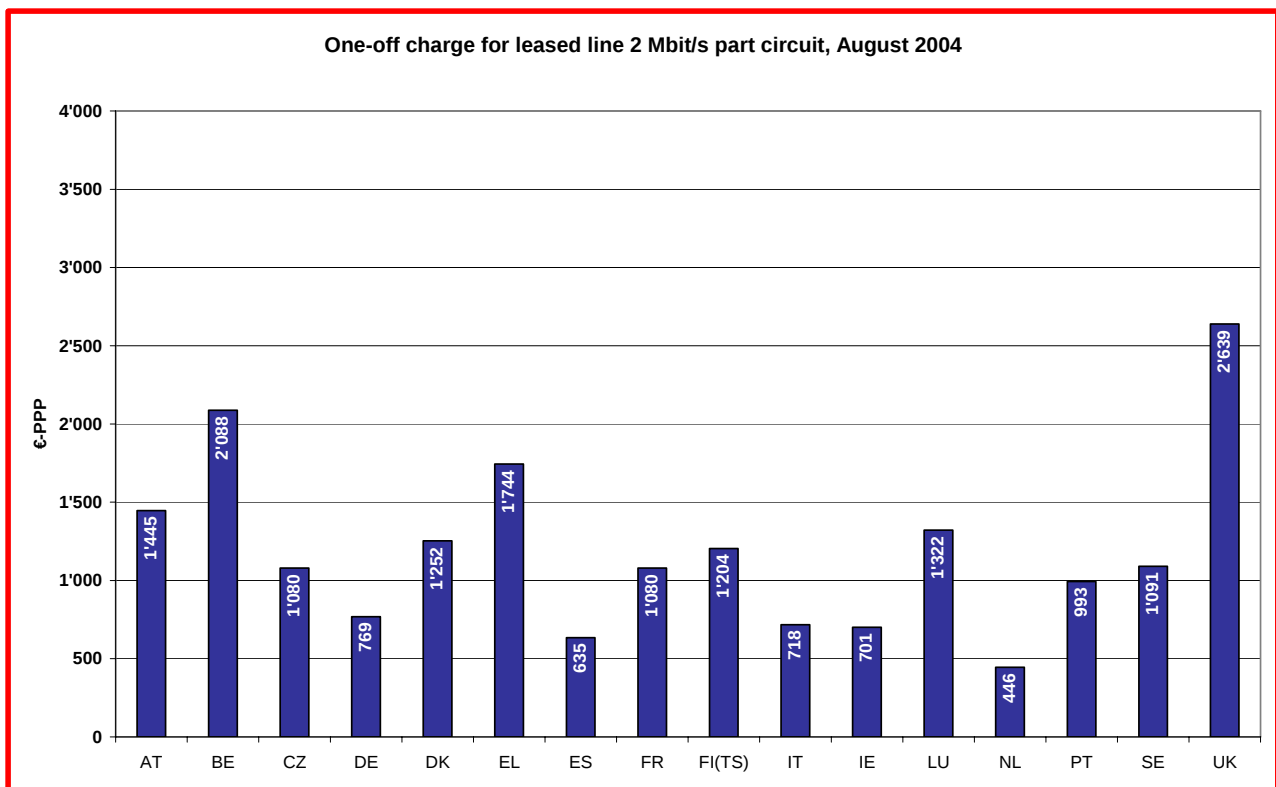
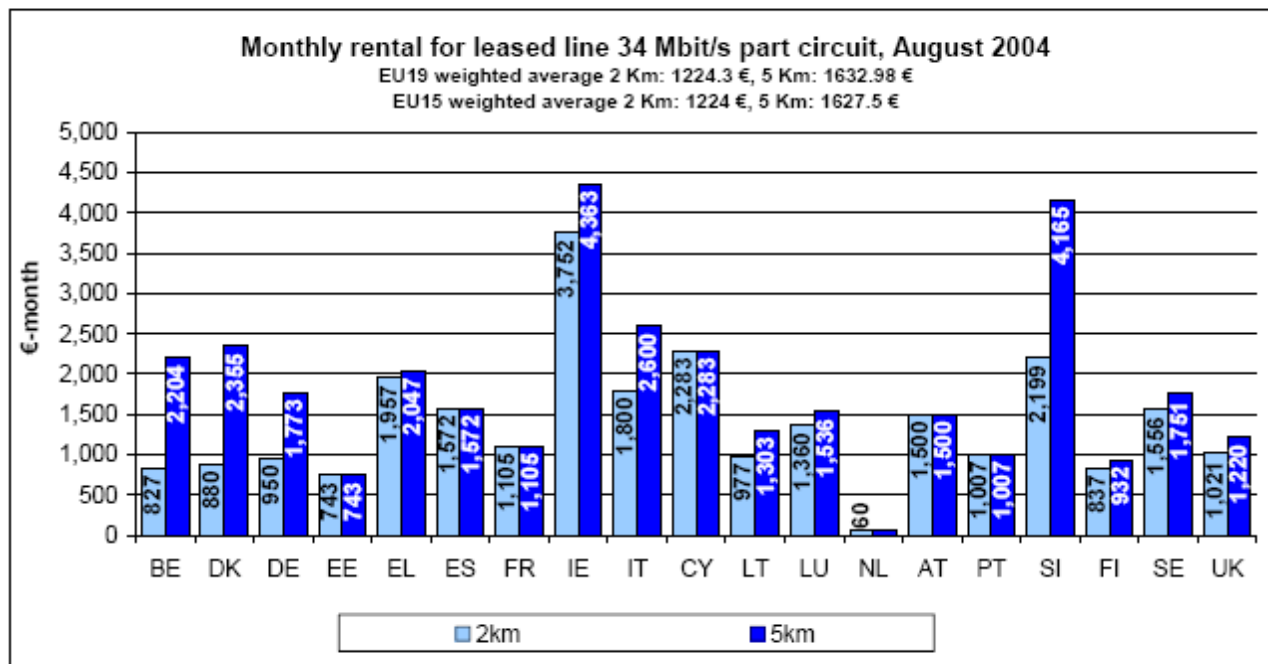


Figure 40



Czech Republic: Individual price

Latvia: IC circuits not offered

The Netherlands: Price excluding (local) fibre access. Fibre access charge is not regulated. Price in the Netherlands is an average of 2 times 34 Mbit/s in a 155 Mbit/s fibre access service and a 155 Mbit/s broadband access group.

Hungary, Malta, Poland: Data not available

Slovakia: 34 Mb/s IC circuits not available

There is no 34 Mbit/s standard price offer in France

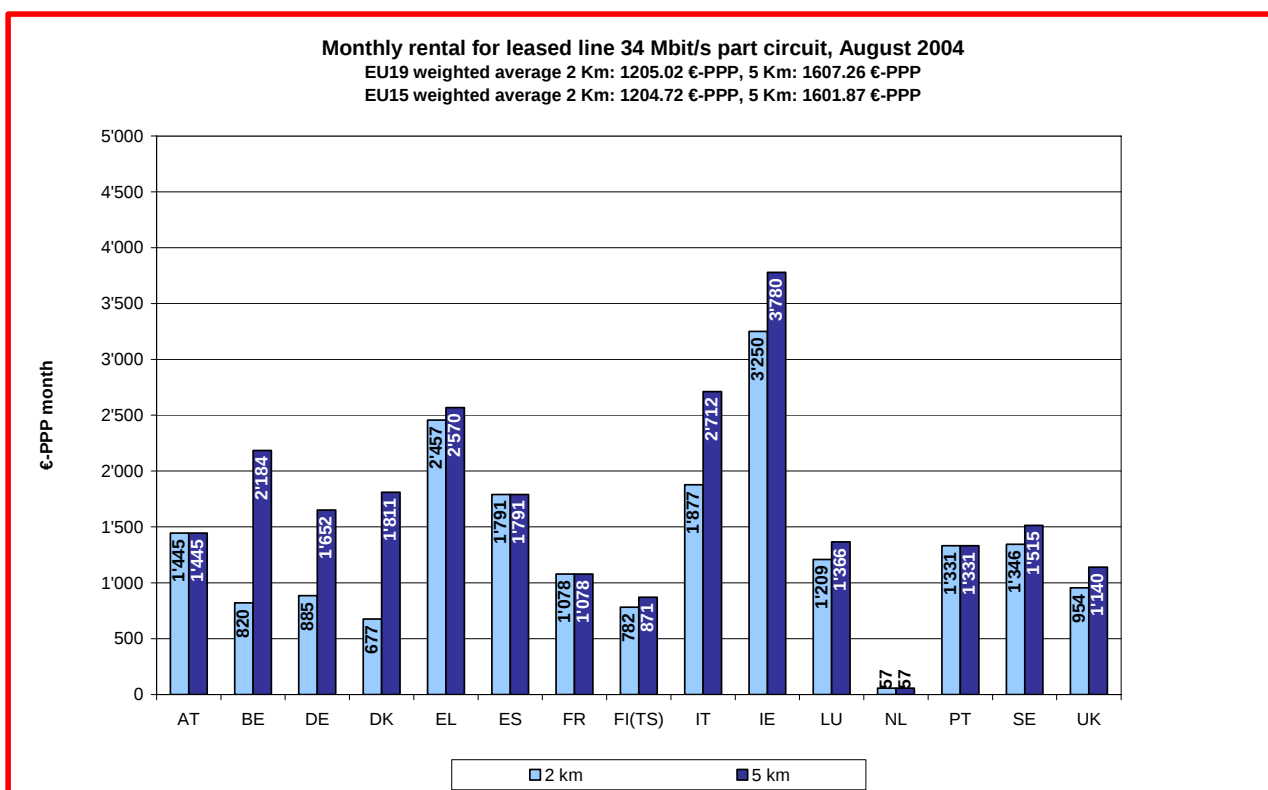
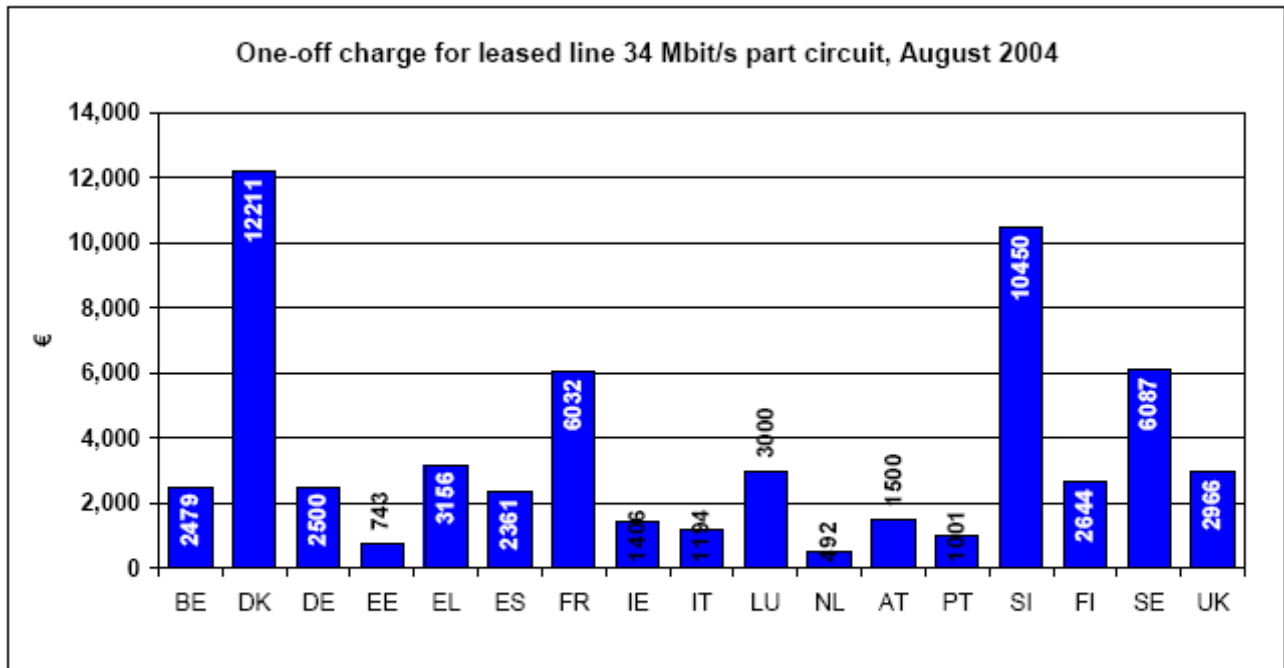


Figure 41



Denmark: Weighted average of the one-off connection costs

There is no 34 Mbit/s standard price offer in France

Price in the Netherlands is an average of 2 times 34 Mbit/s in a 155 Mbit/s fibre access service and a 155 Mbit/s broadband access group.

Czech Republic, Cyprus, Lithuania, Hungary, Malta, Poland: Data not available

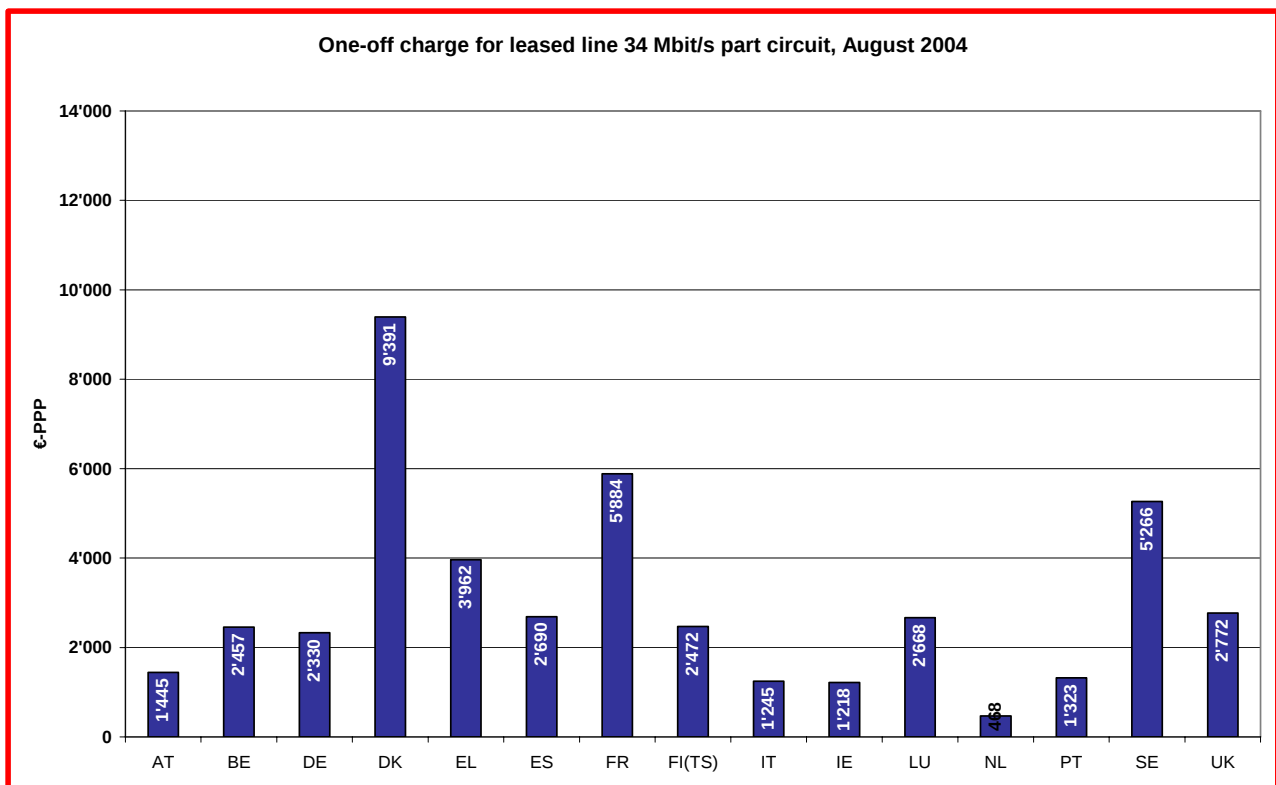
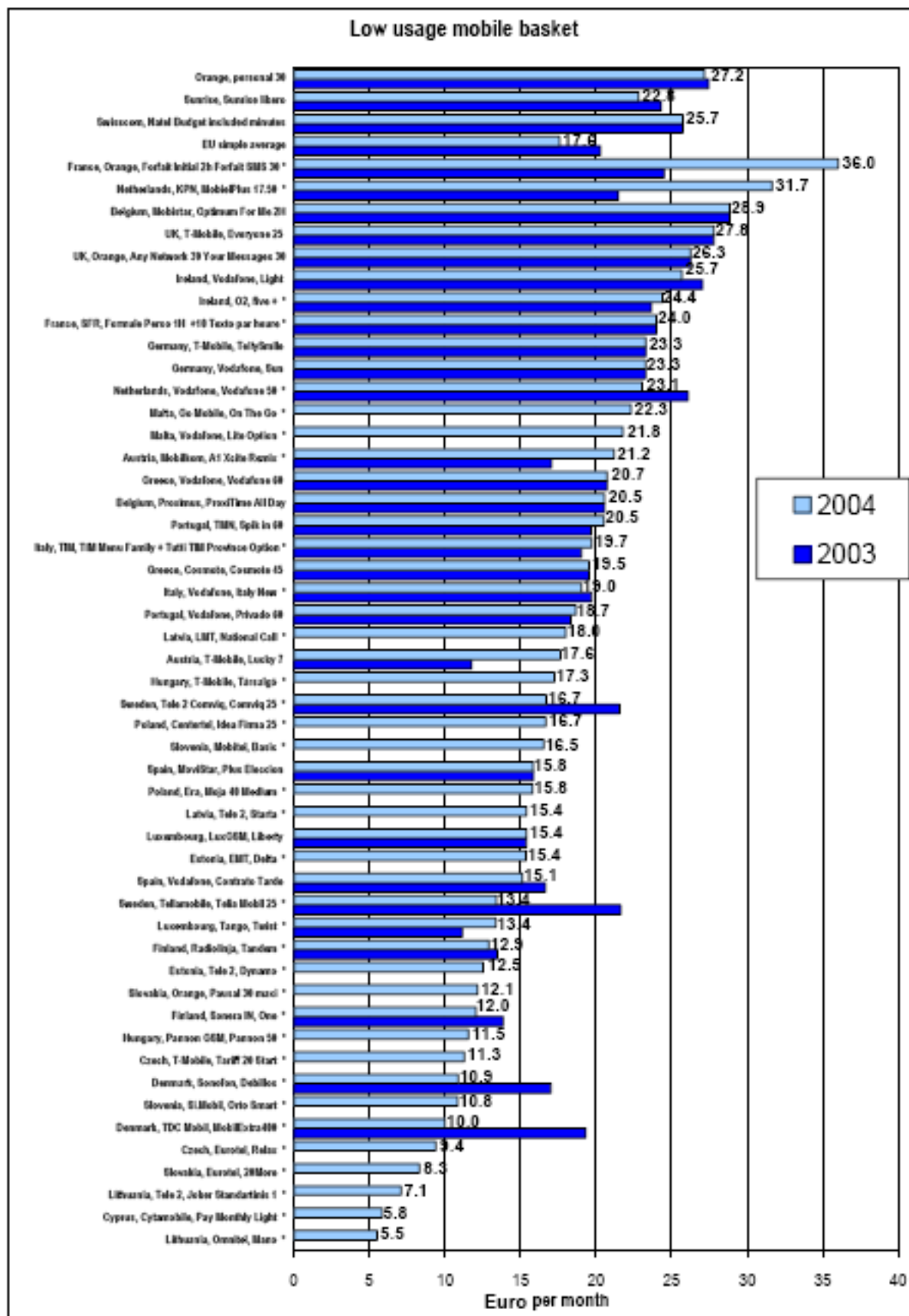


Figure 55



Entries with an asterisk (*) after the name have changed the package name and structure since last year.

Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

Low usage mobile basket

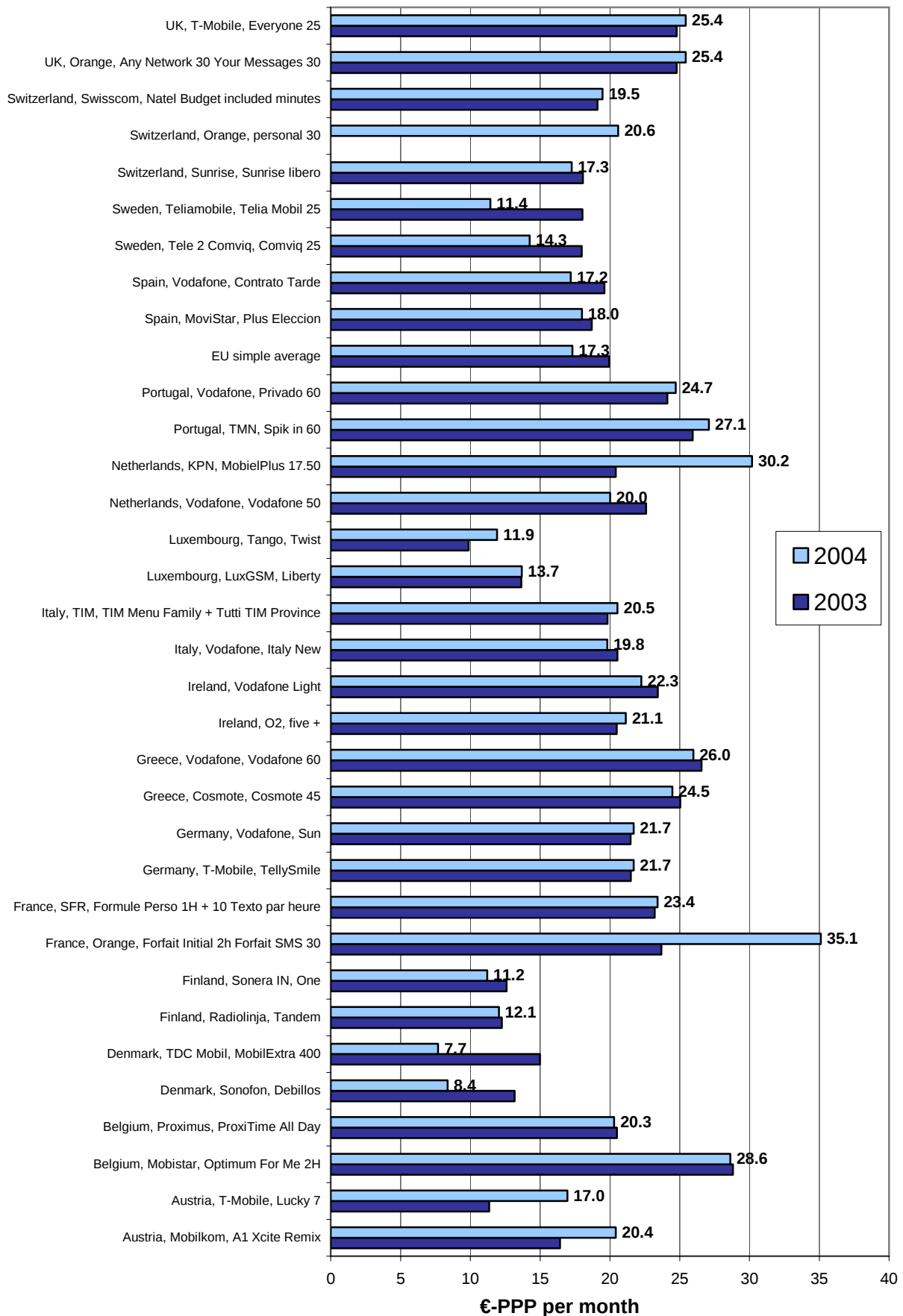
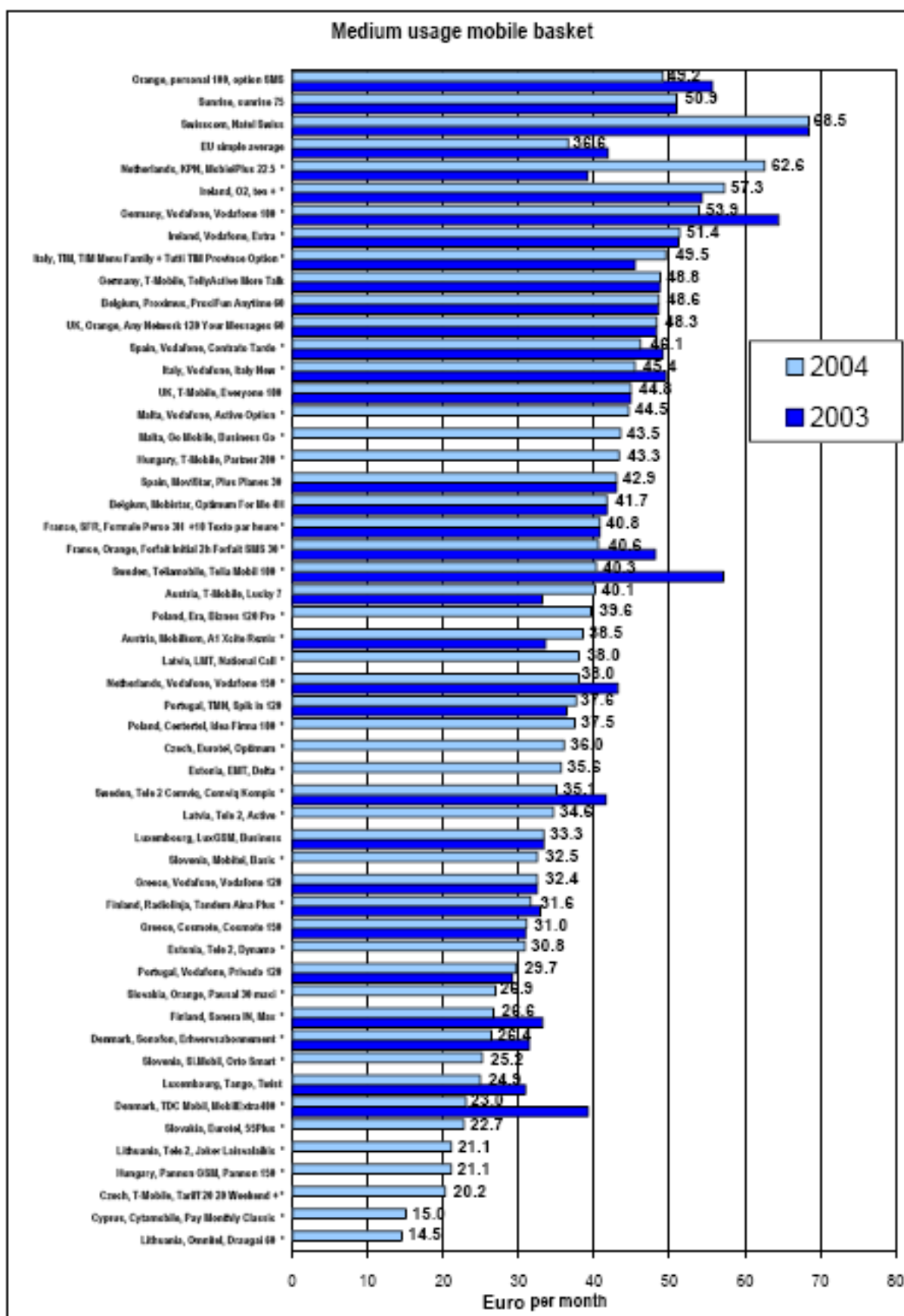


Figure 56



Entries with an asterisk (*) after the name have changed the package name and structure since last year.

Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

Medium usage mobile basket

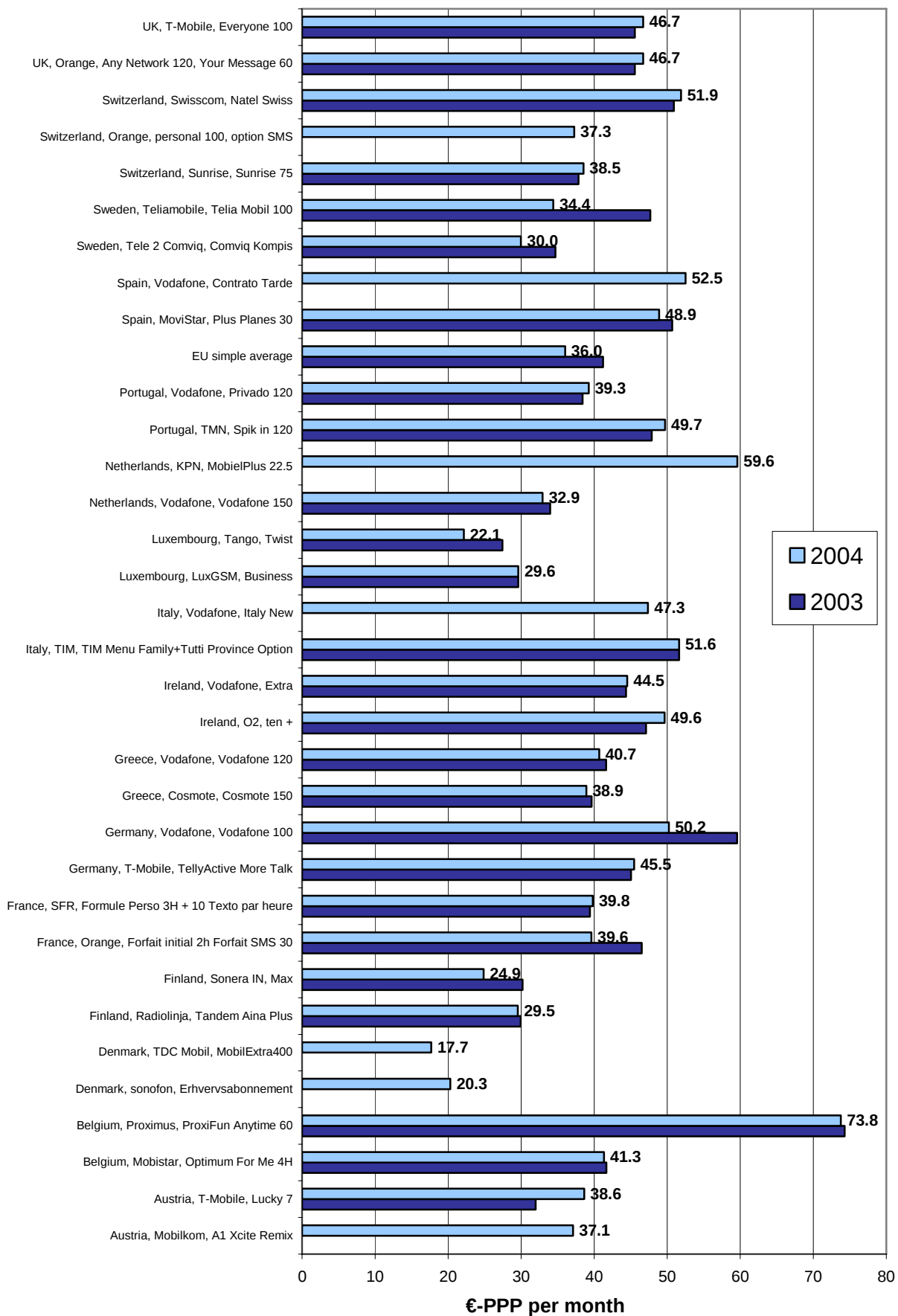
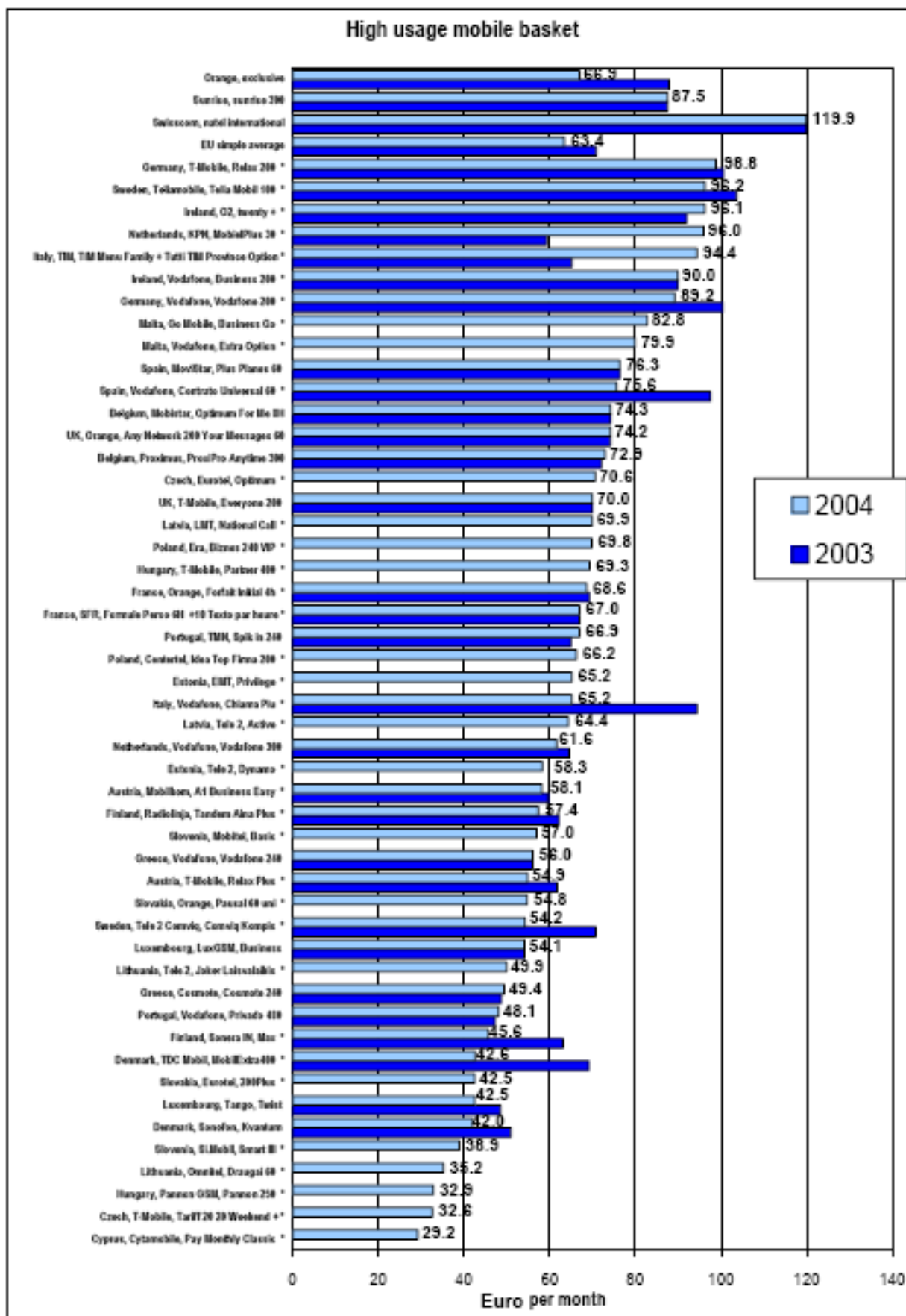


Figure 57



Entries with an asterisk (*) after the name have changed the package name and structure since last year

Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

High usage mobile basekt

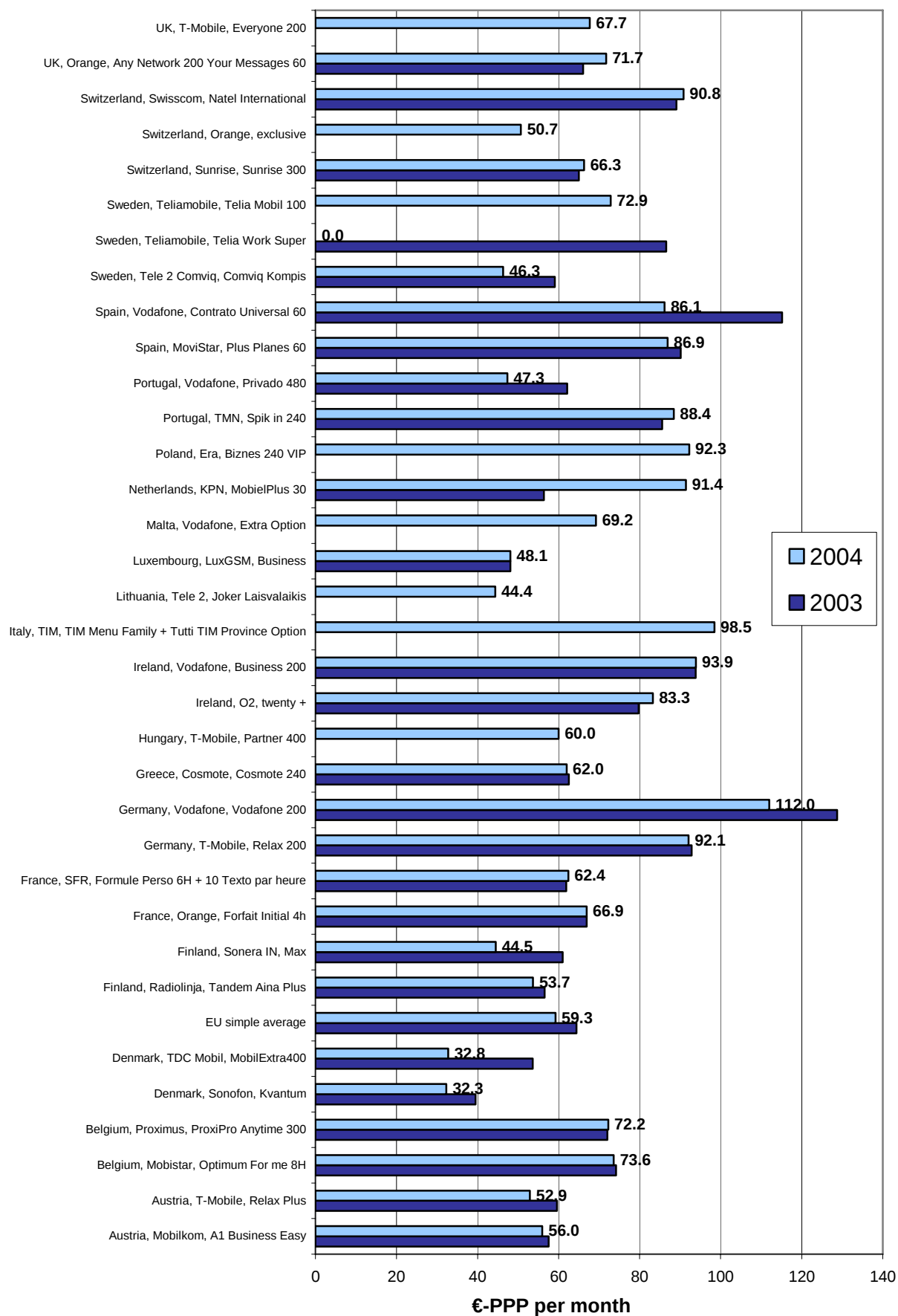


Figure 76

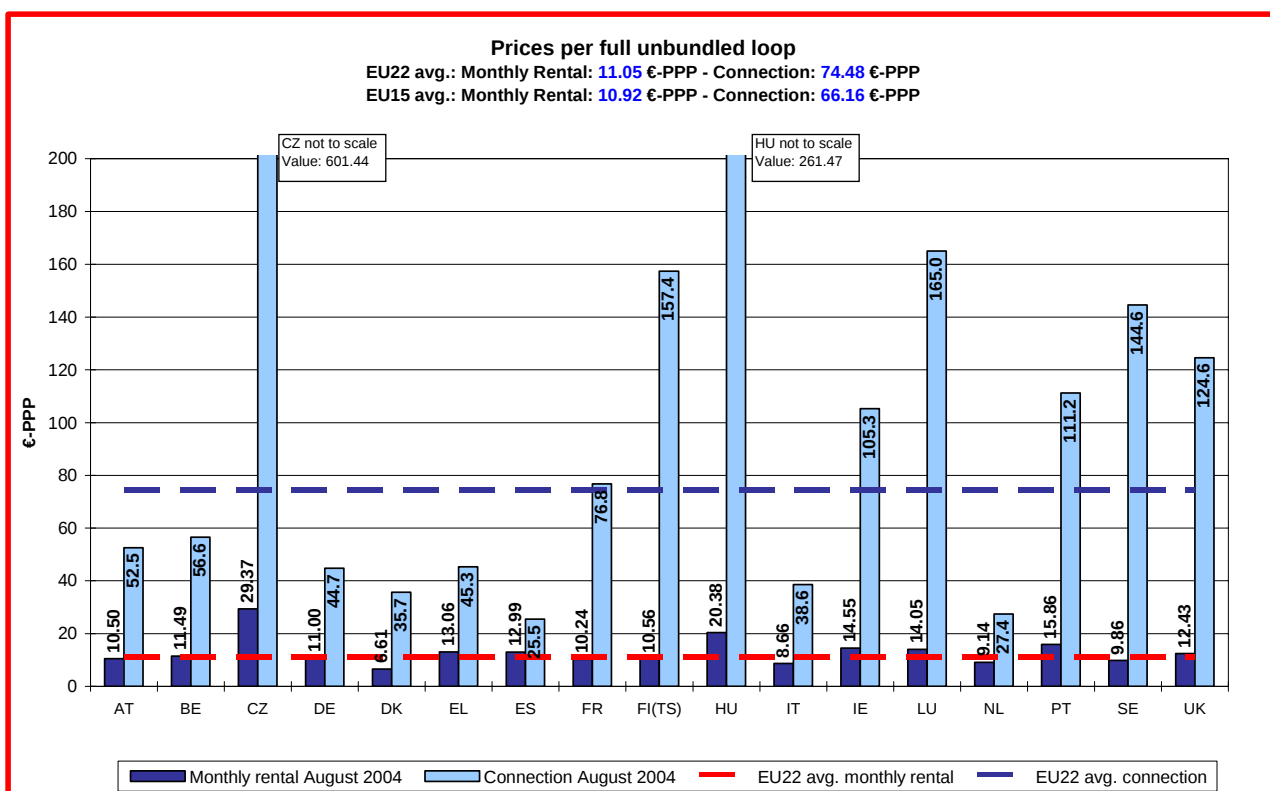
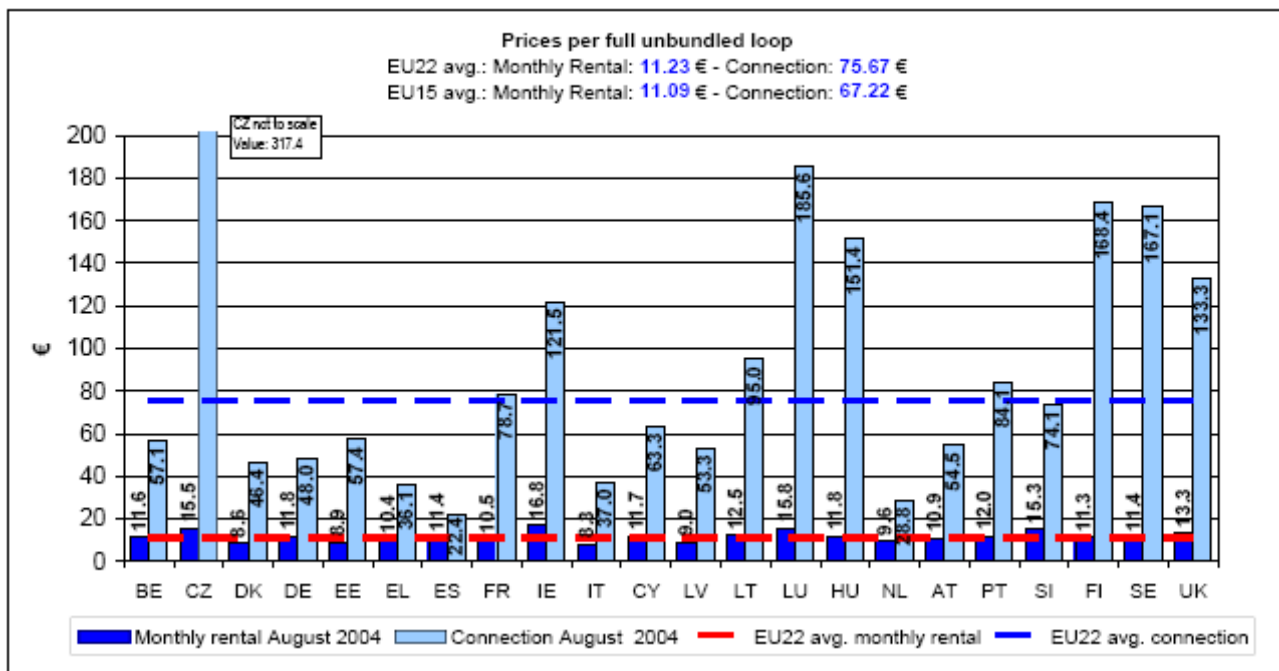
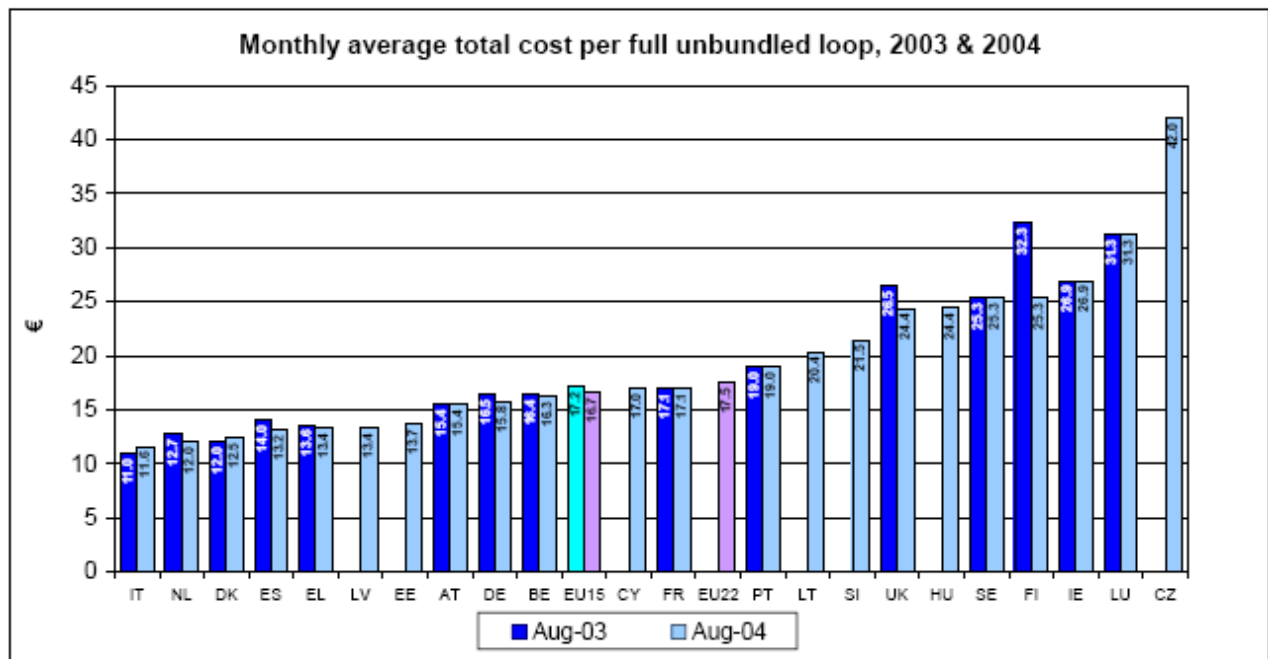


Figure 77



Estimates are based on the total cost for the loop for the first year.

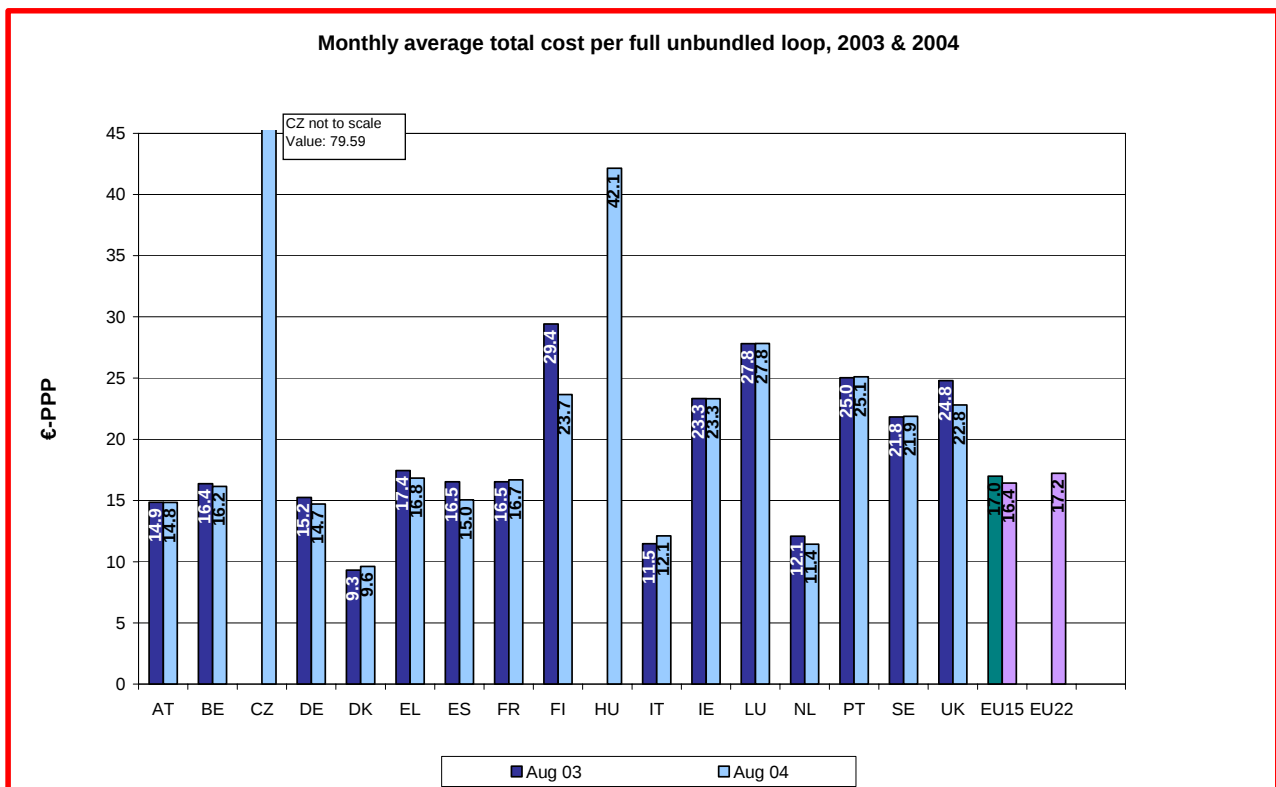


Figure 78

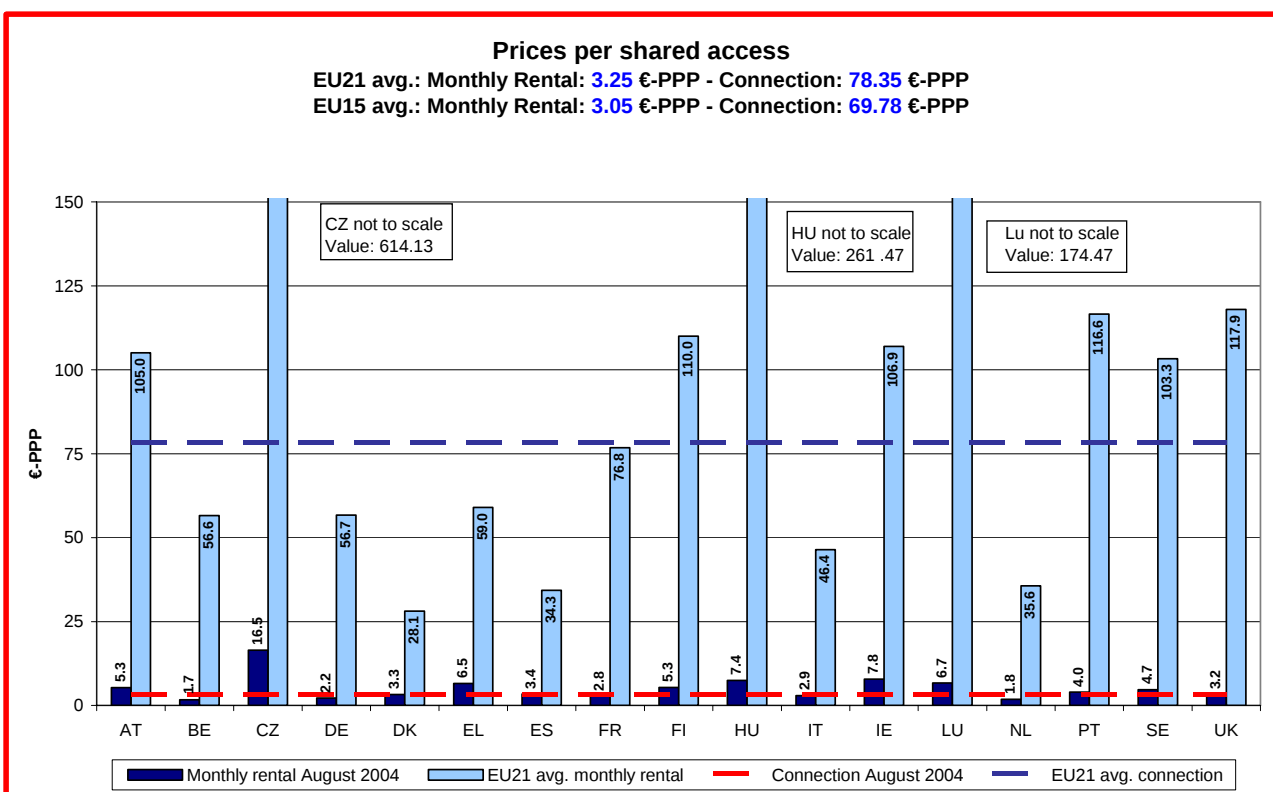
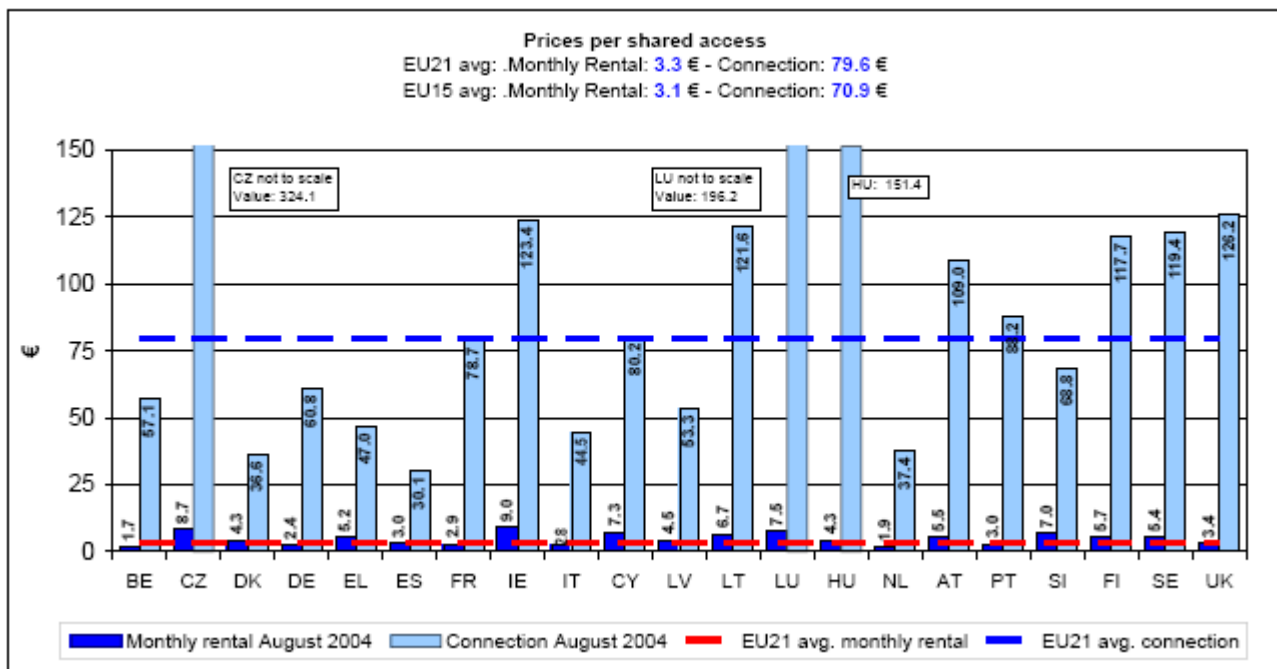
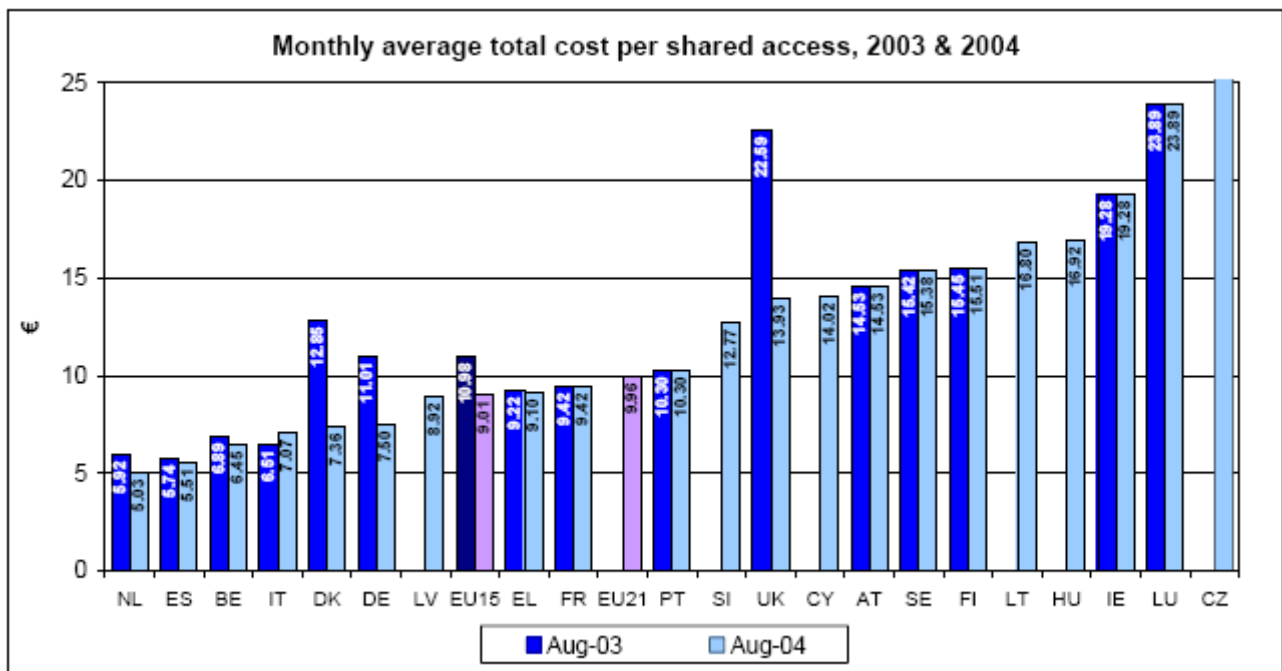


Figure 79



Estimates are based on the total cost for the loop for the first year.

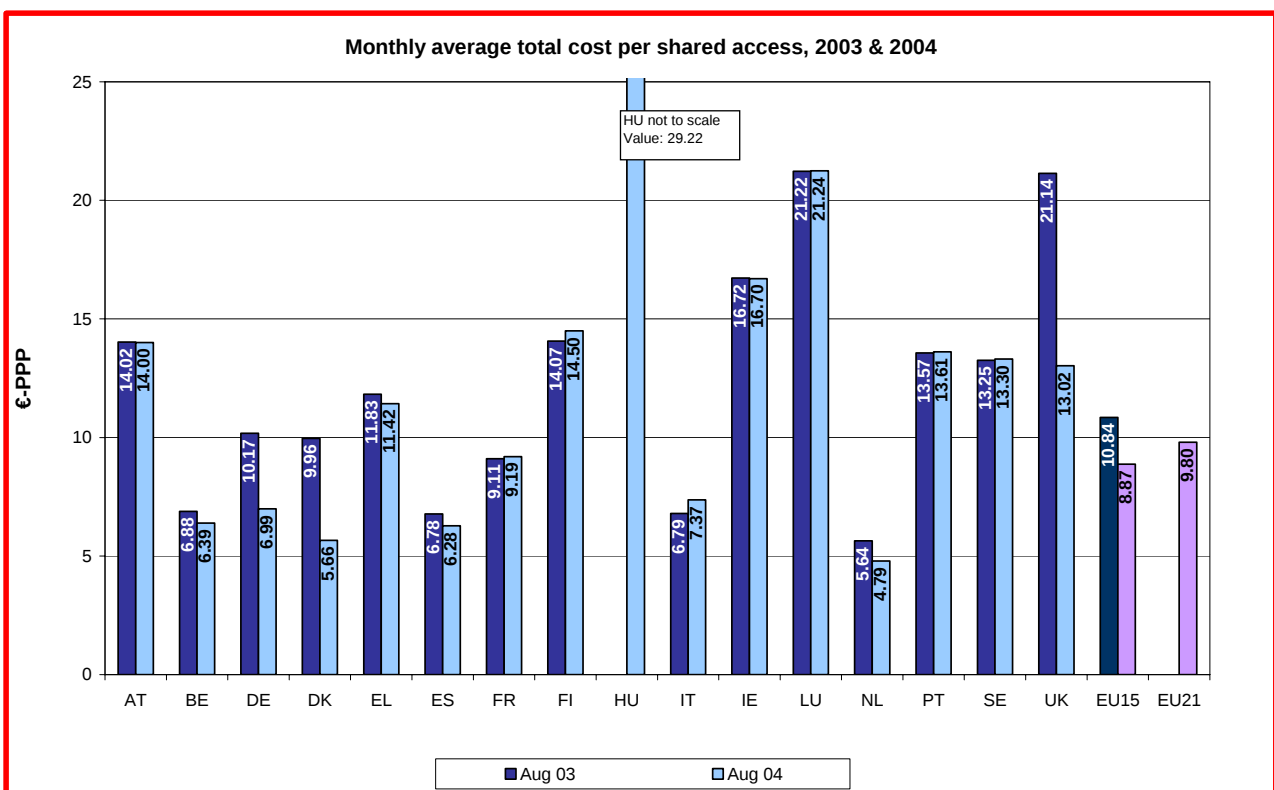
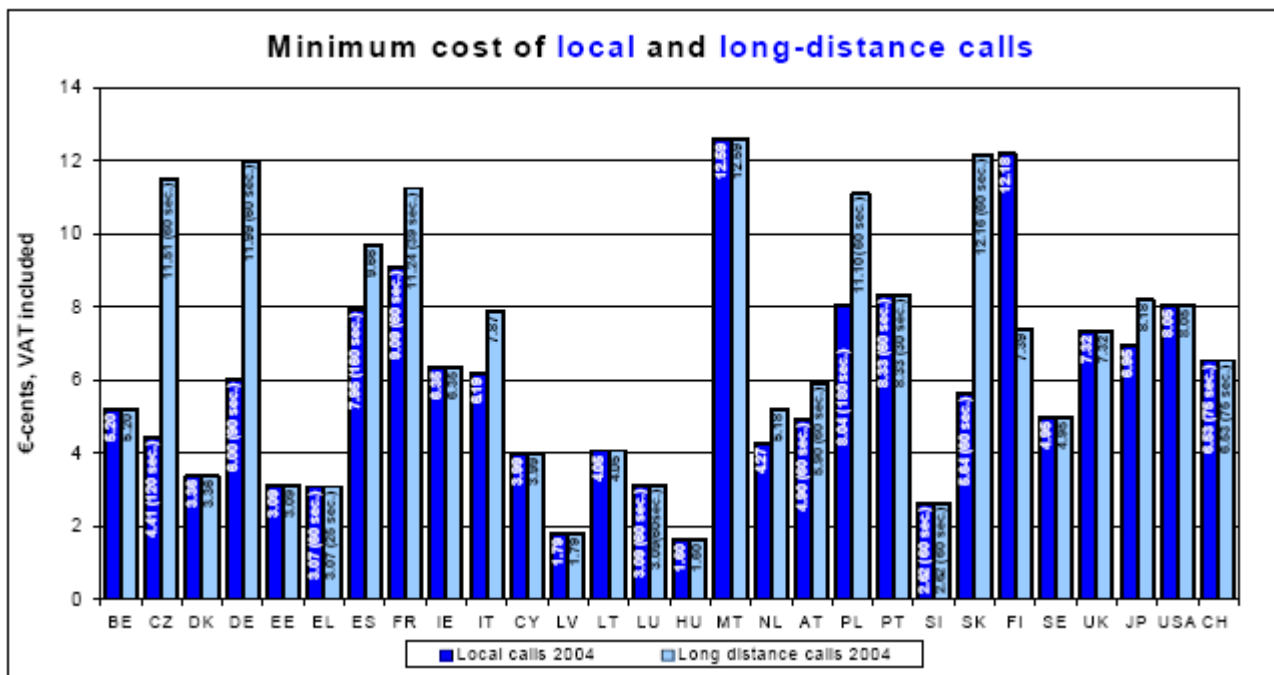


Figure 80



There is no difference for the minimum cost of a local and a long-distance call in Belgium, Cyprus, Denmark, Estonia, Hungary, Ireland, Latvia, Lithuania, Slovenia, Sweden, United Kingdom and US.

Source for Switzerland: OFCOM Switzerland.

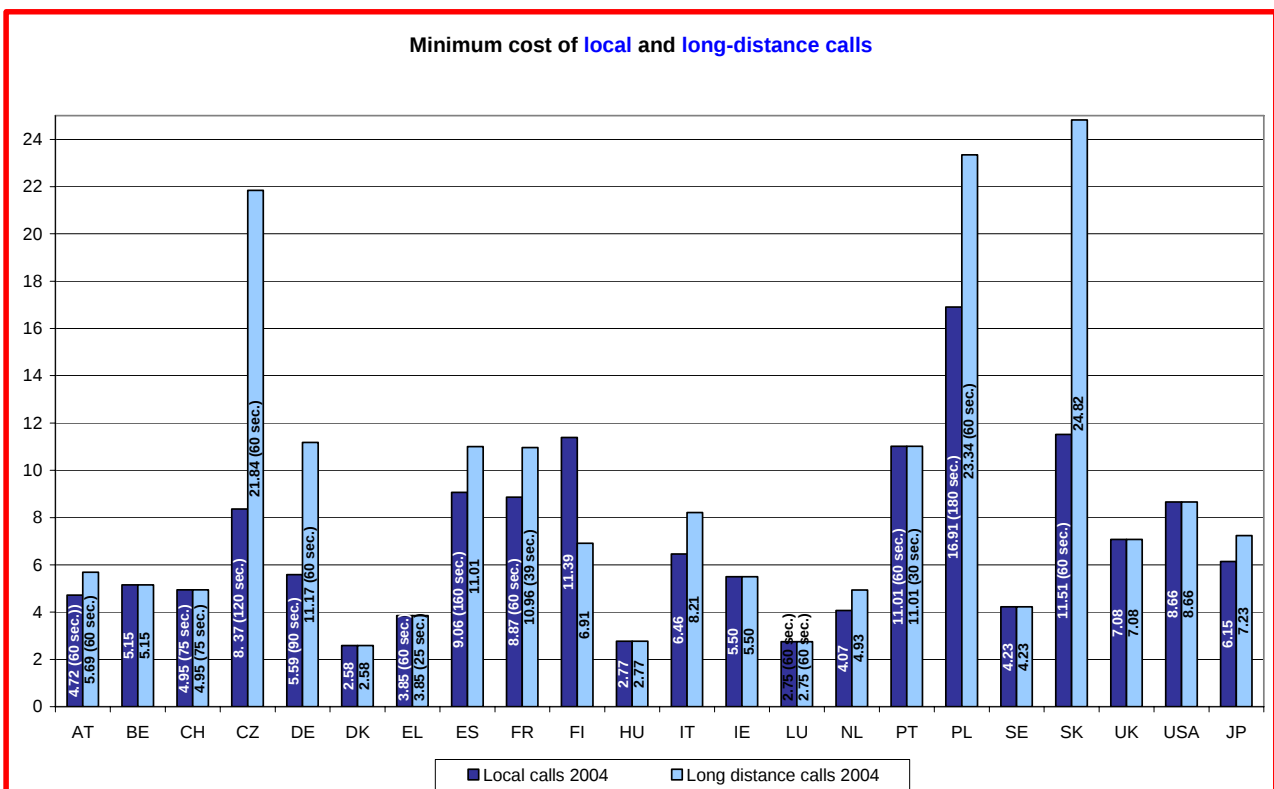
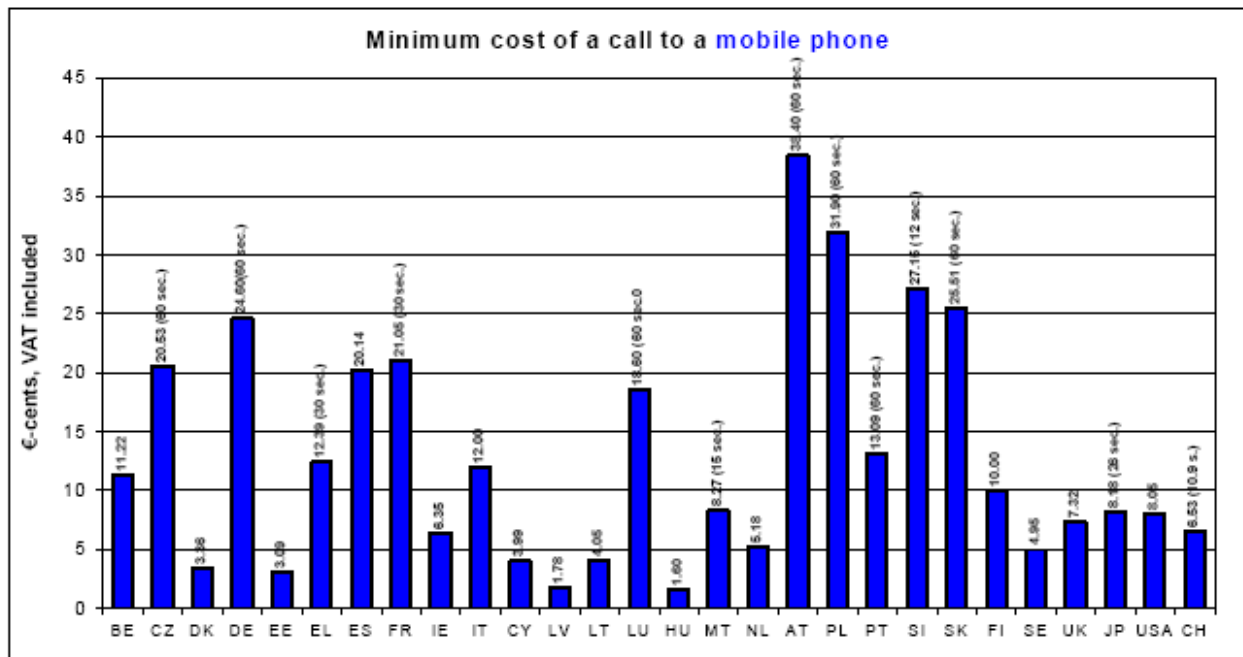


Figure 81



Source for Switzerland: OFCOM Switzerland.

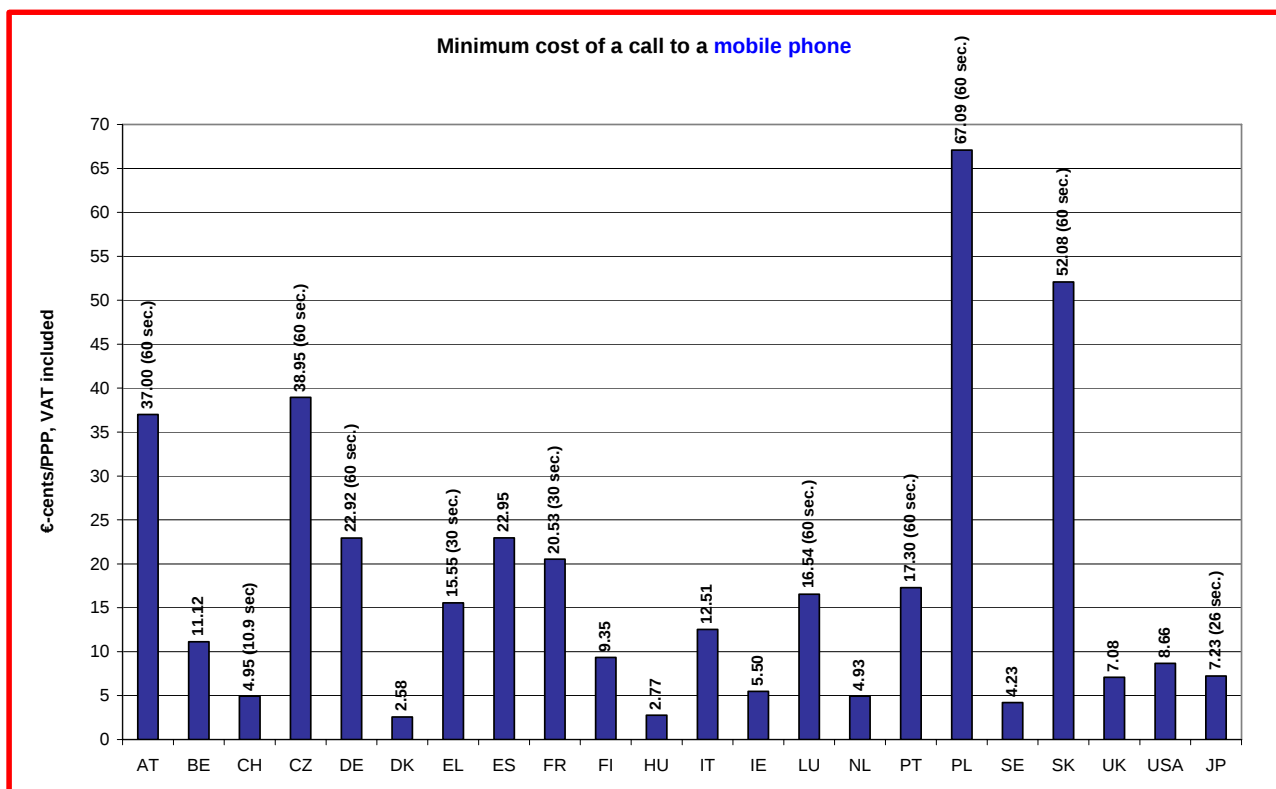
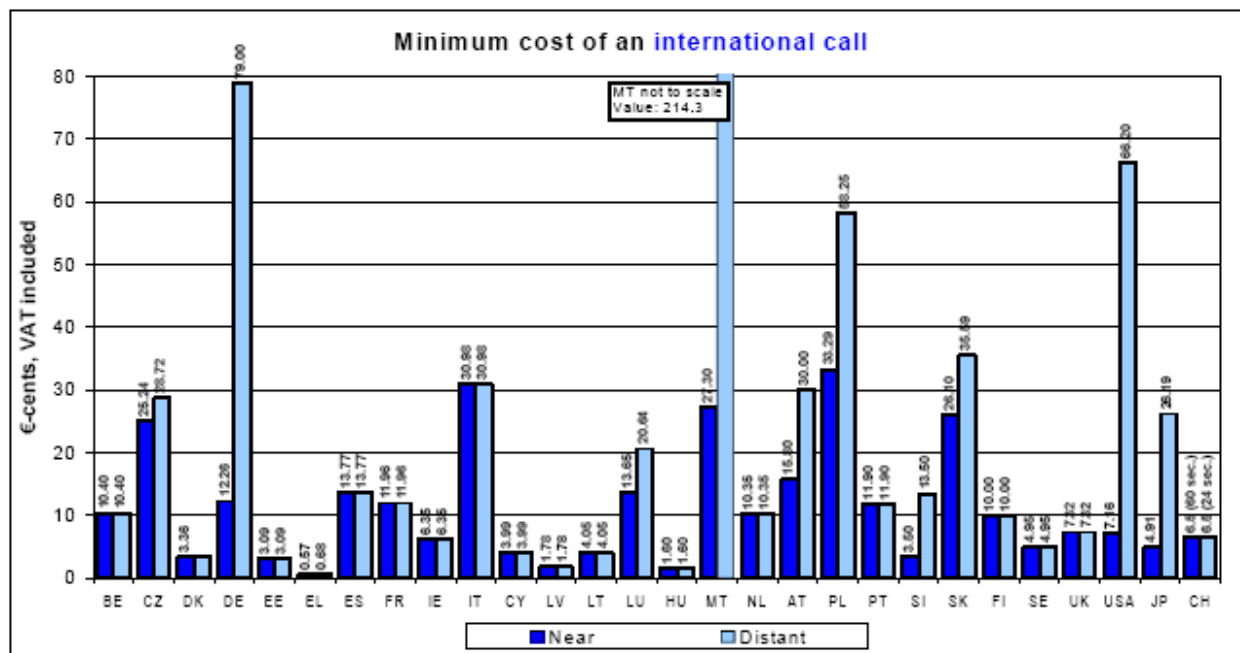


Figure 82



Source for Switzerland: OFCOM Switzerland.

Note: the maximum amount (as well as the seconds referring to it) corresponds to the highest amount for a call to a European country.

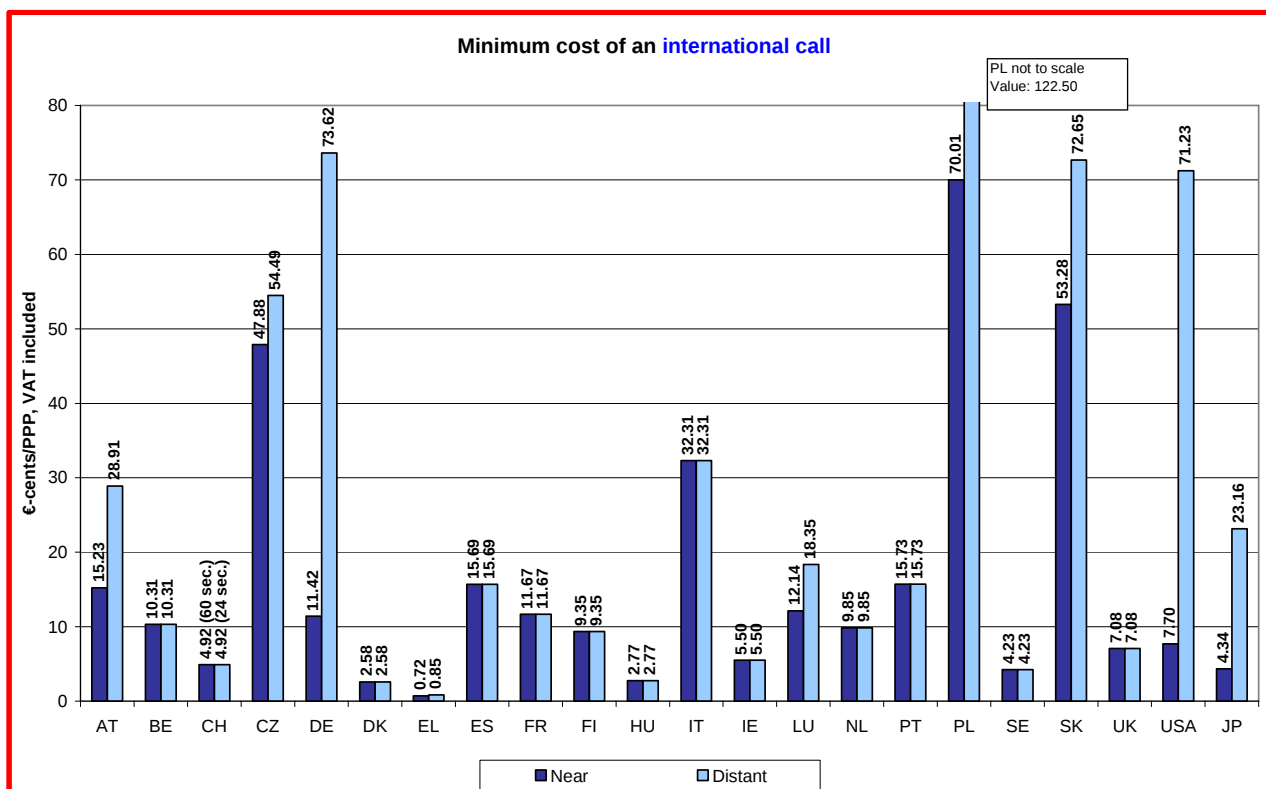
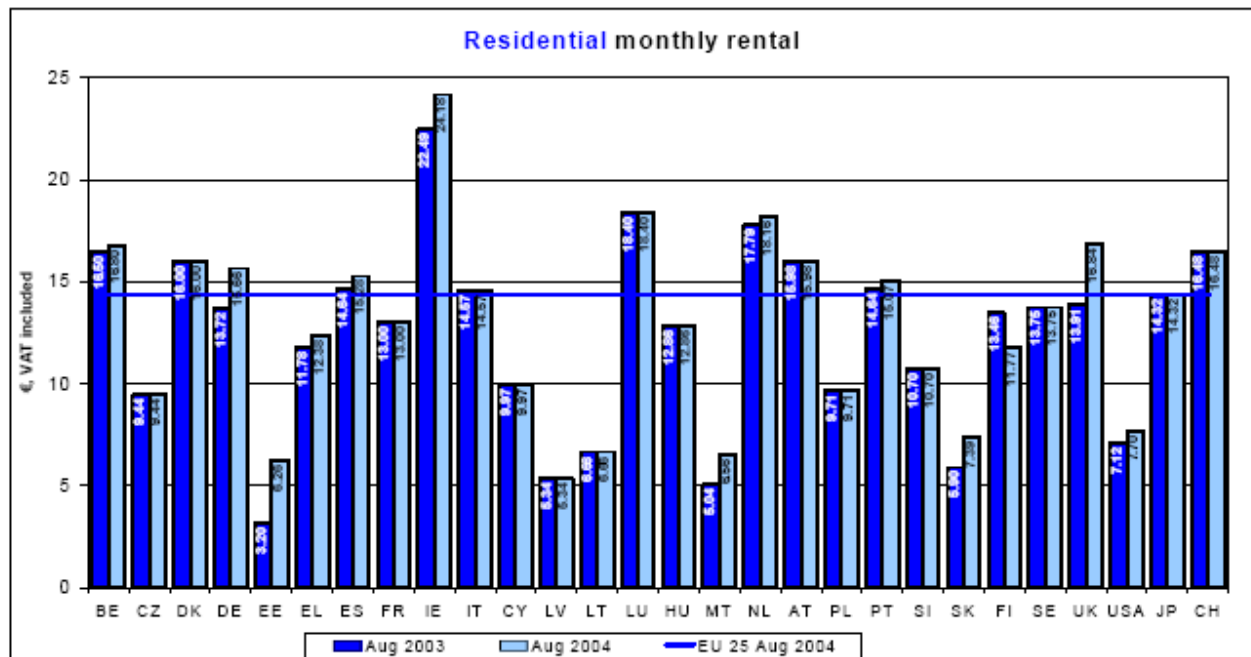


Figure 83



Source for Switzerland: OFCOM Switzerland.

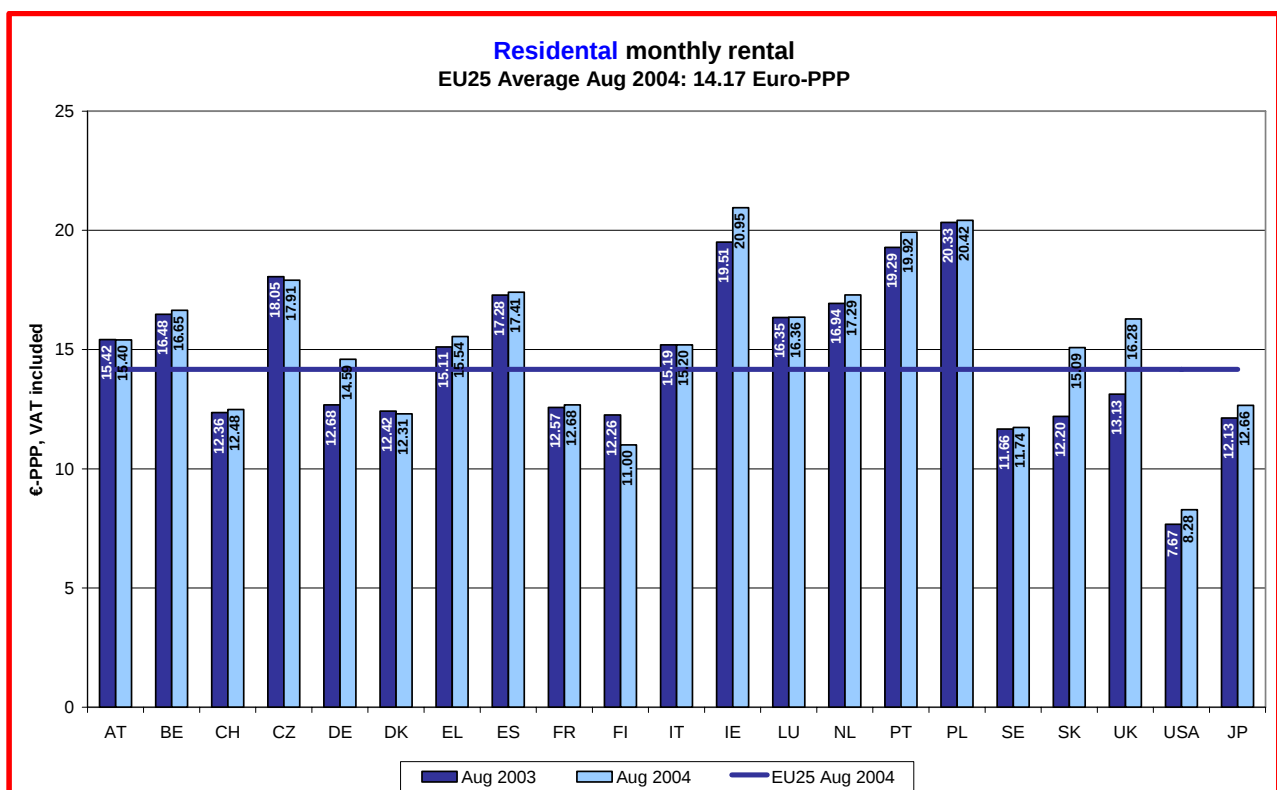
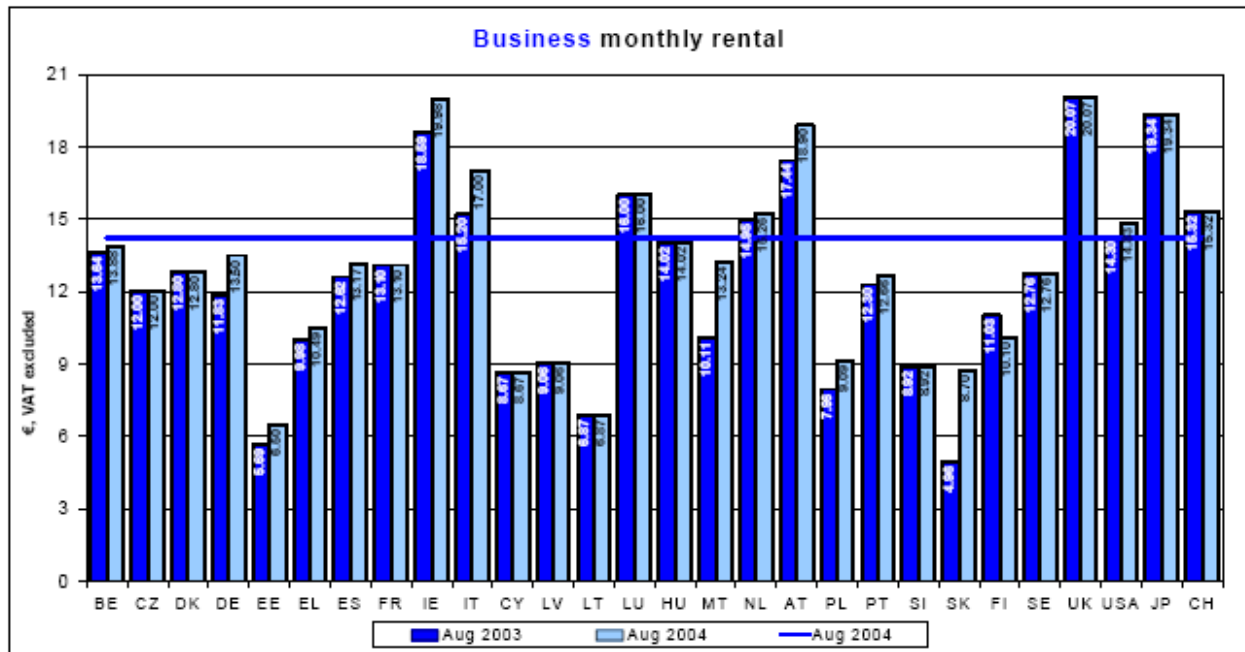


Figure 84



Source for Switzerland: OFCOM Switzerland.

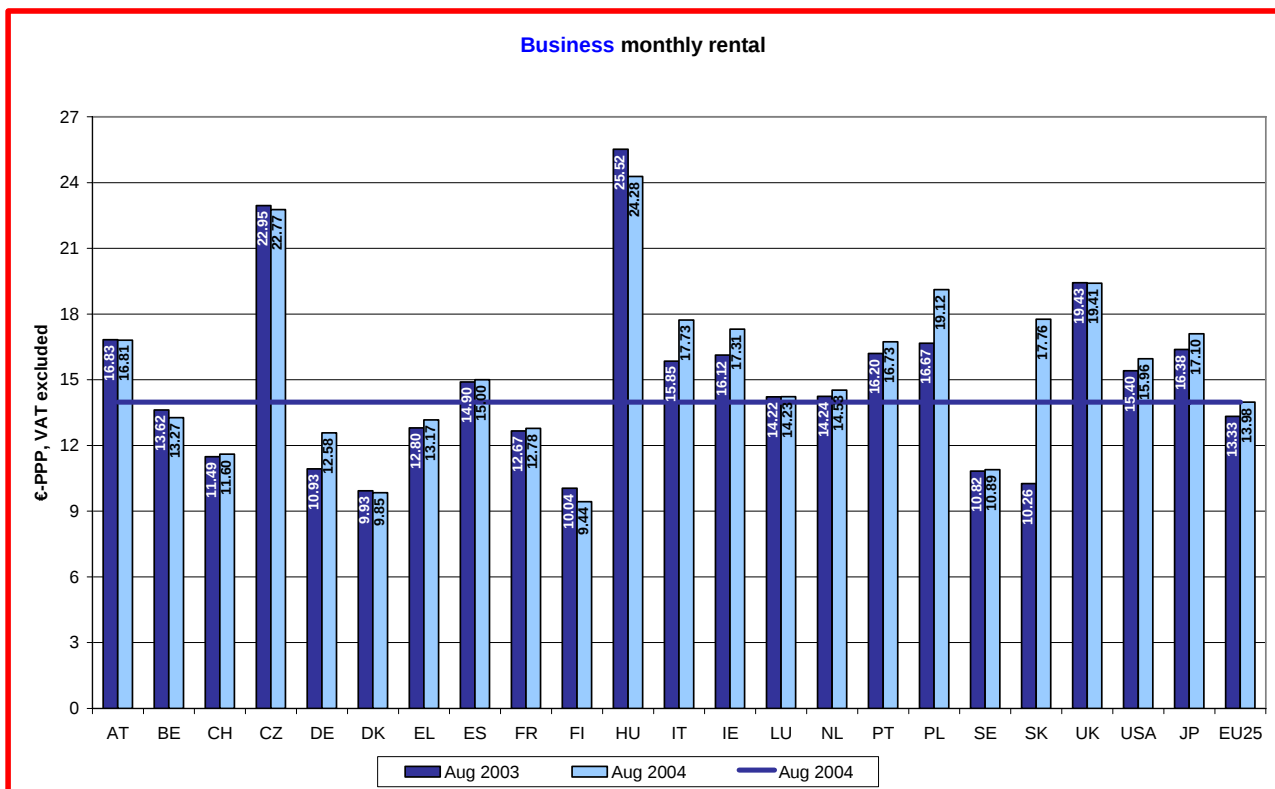
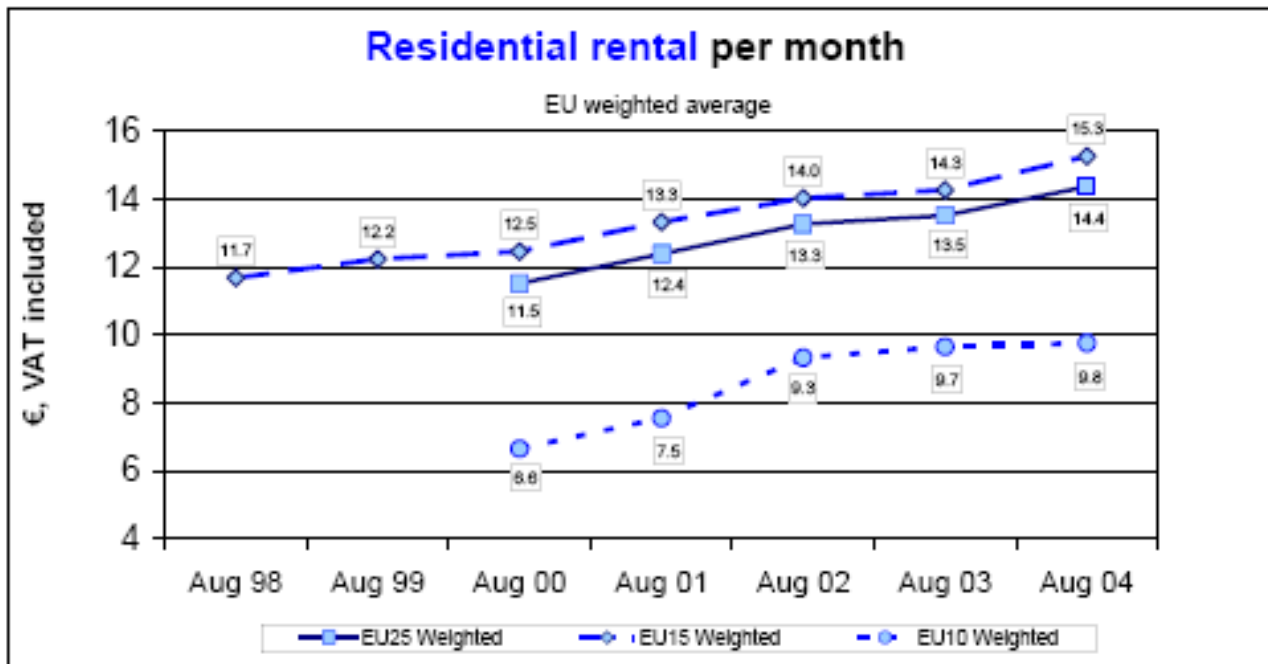


Figure 85



Source for Switzerland: OFCOM Switzerland.

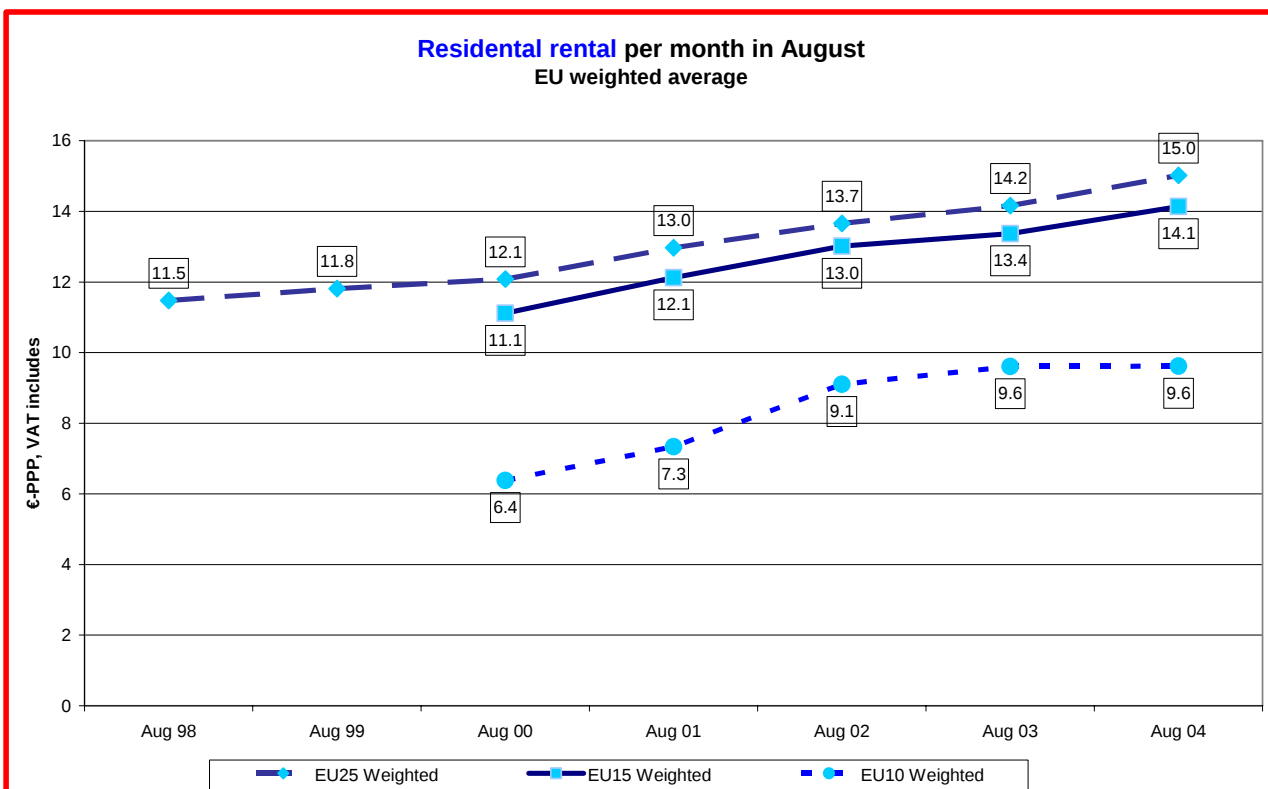
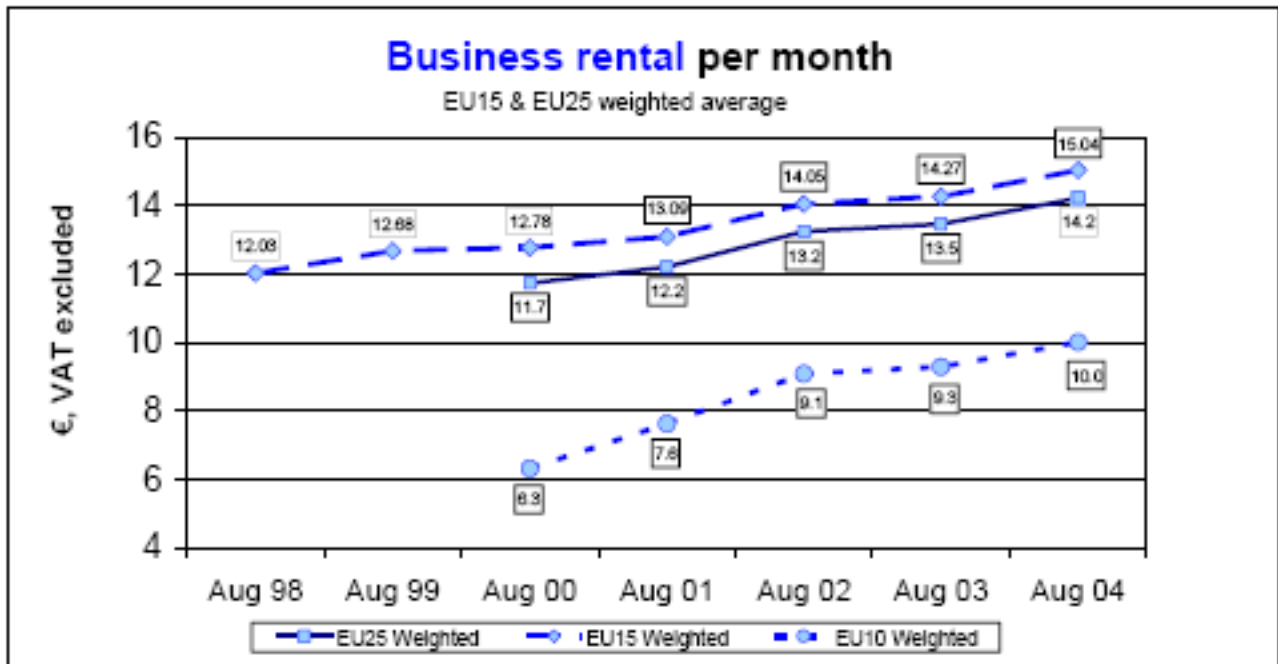


Figure 86



Source for Switzerland: OFCOM Switzerland.

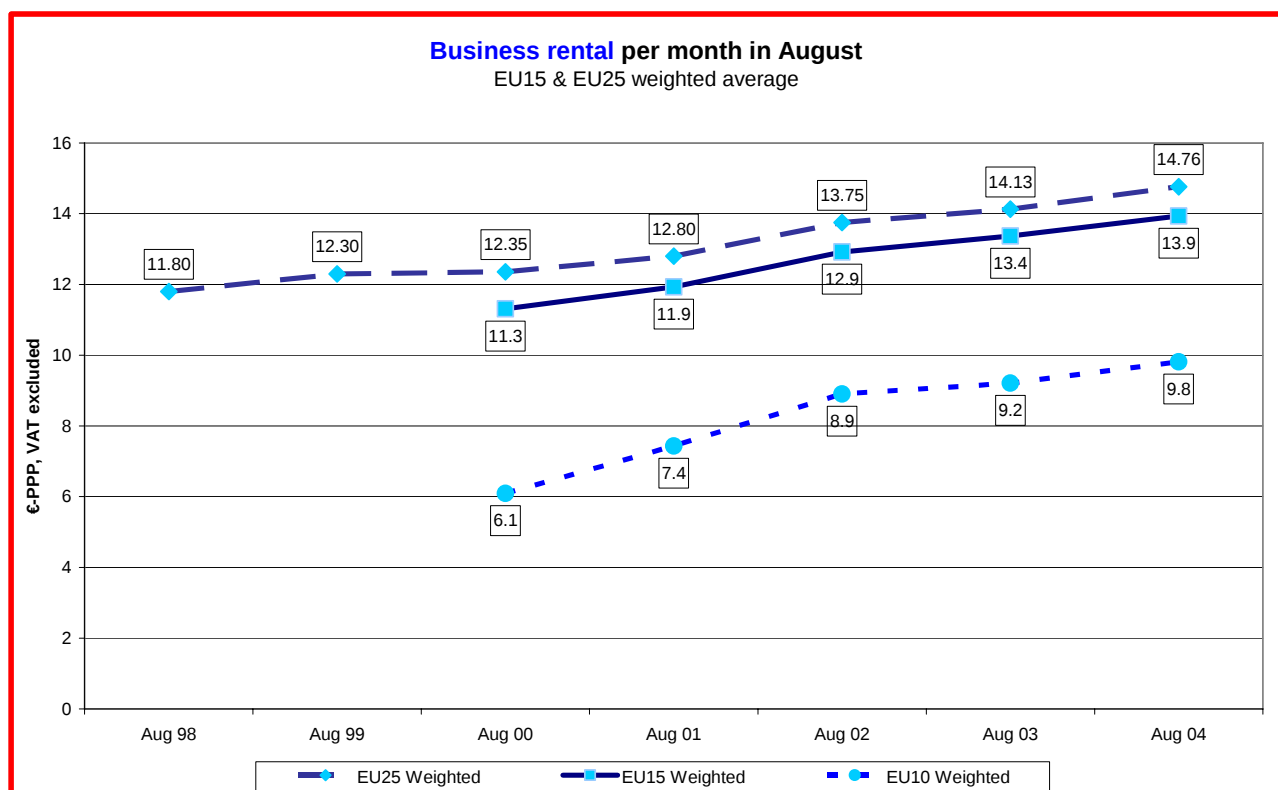
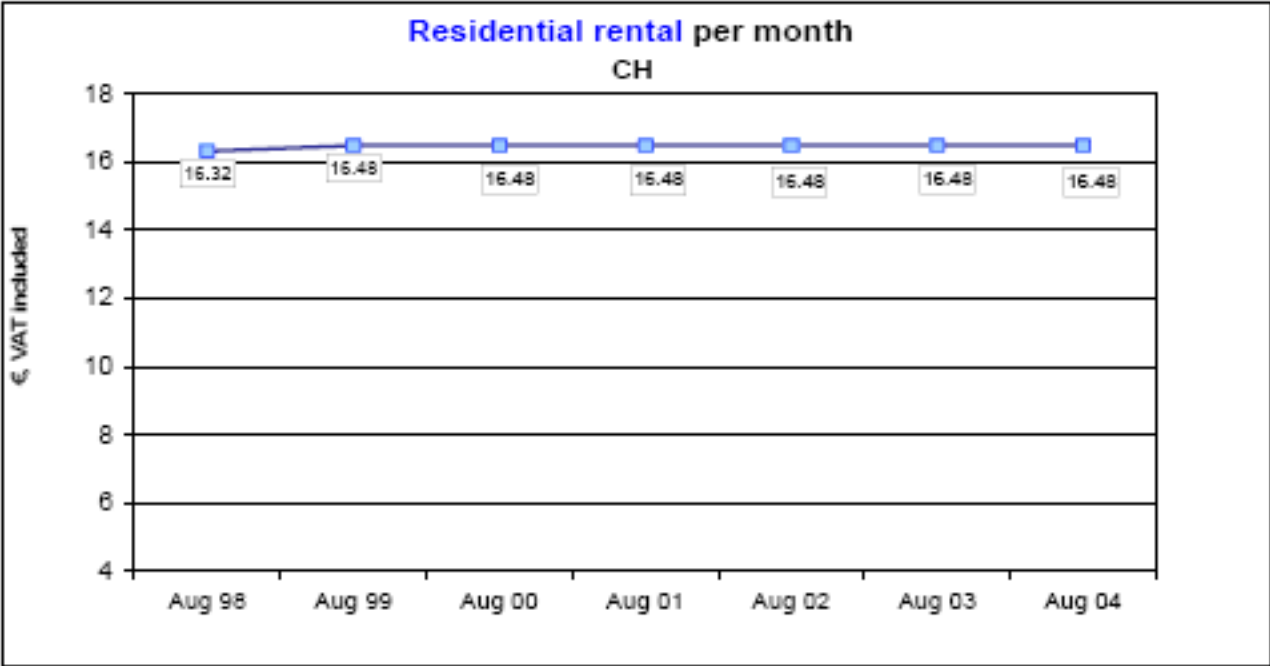


Figure 85a



Source for Switzerland: OFCOM Switzerland.

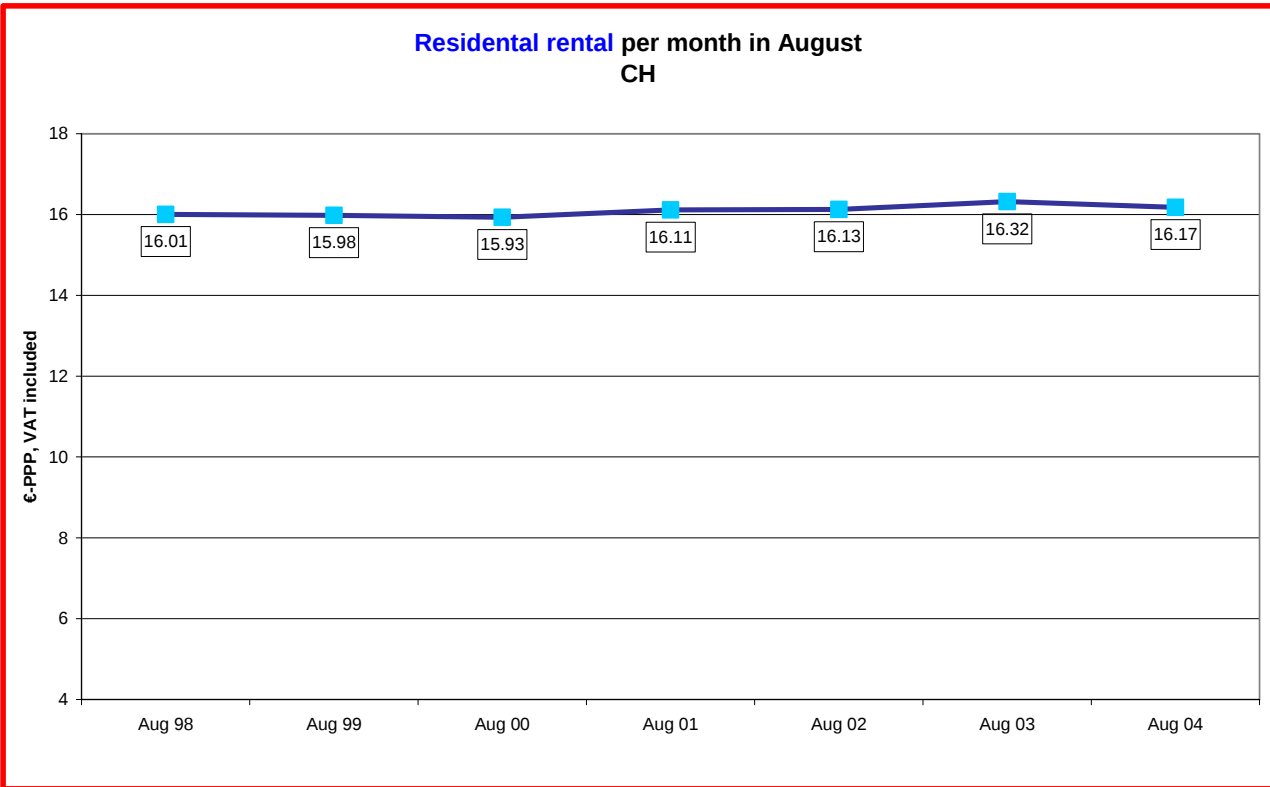
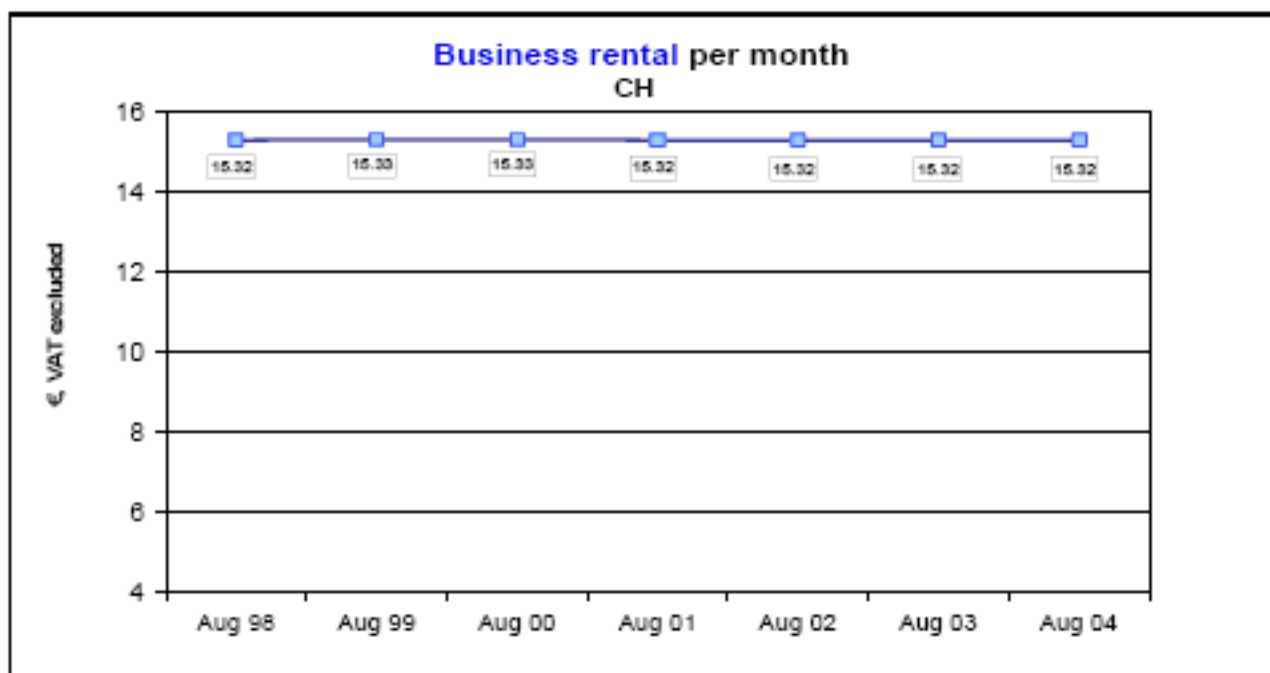


Figure 86a



Source for Switzerland: OFCOM Switzerland.

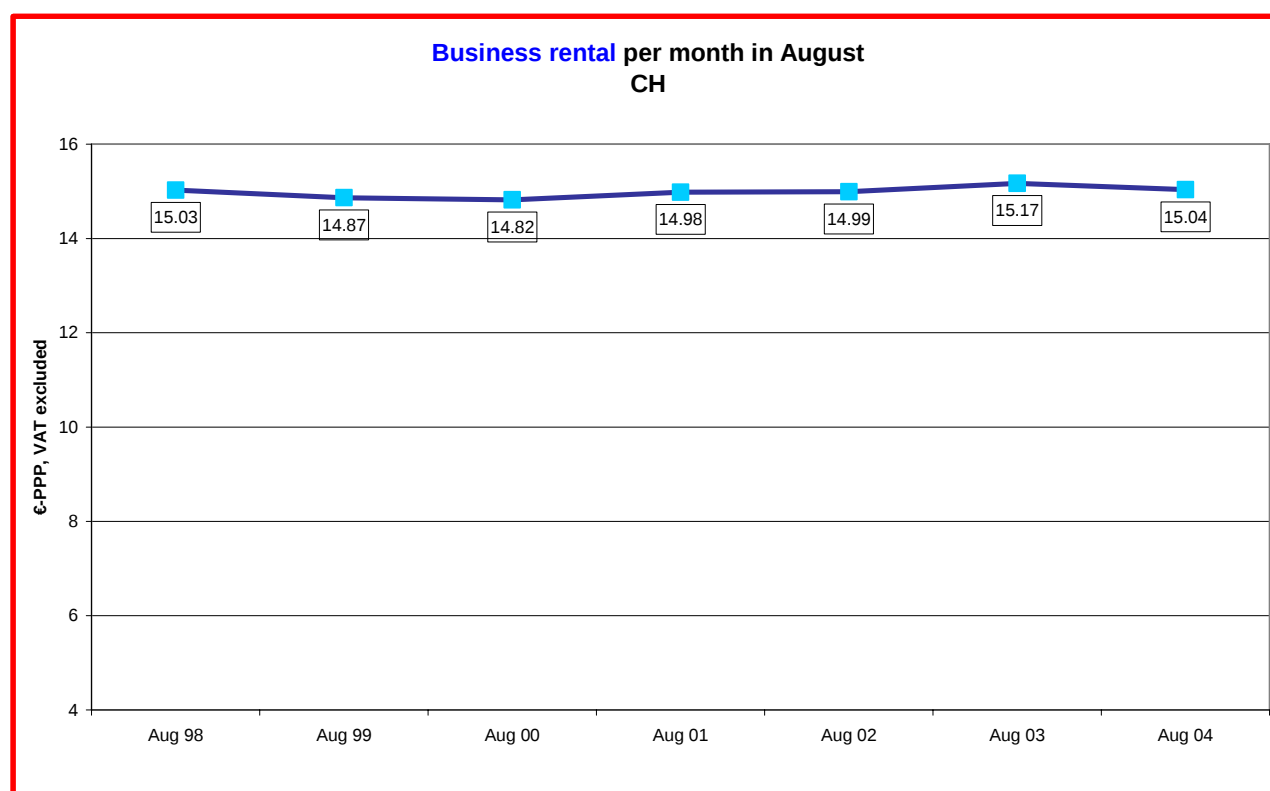
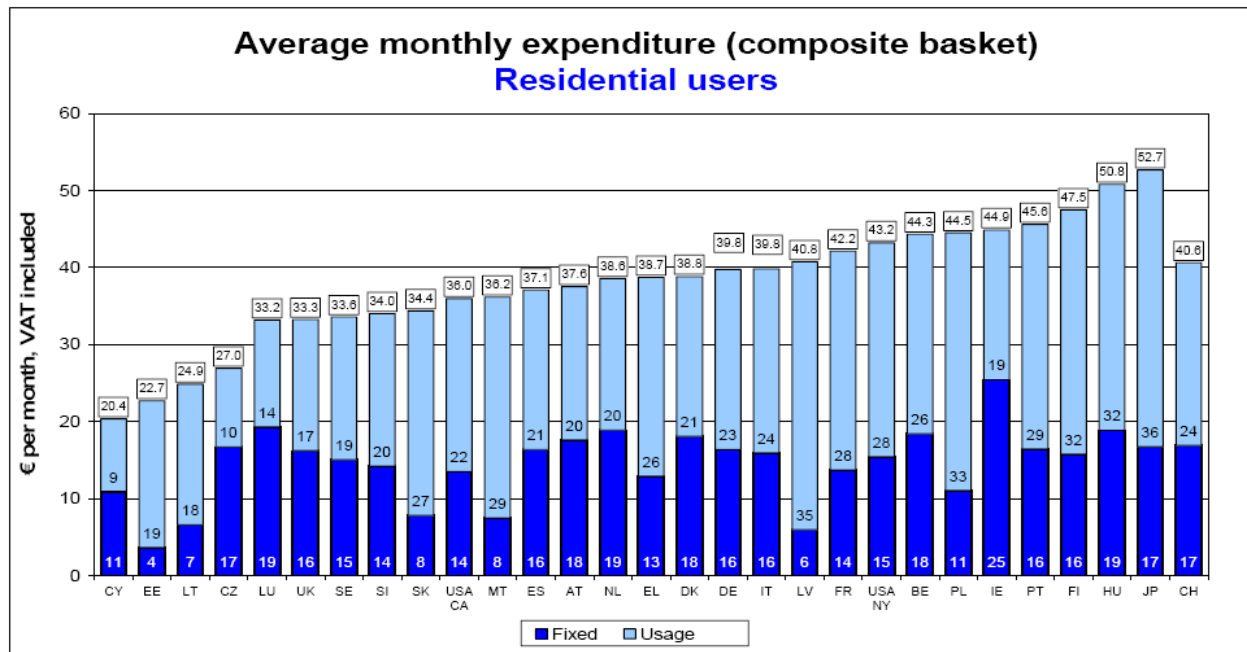


Figure 87



Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

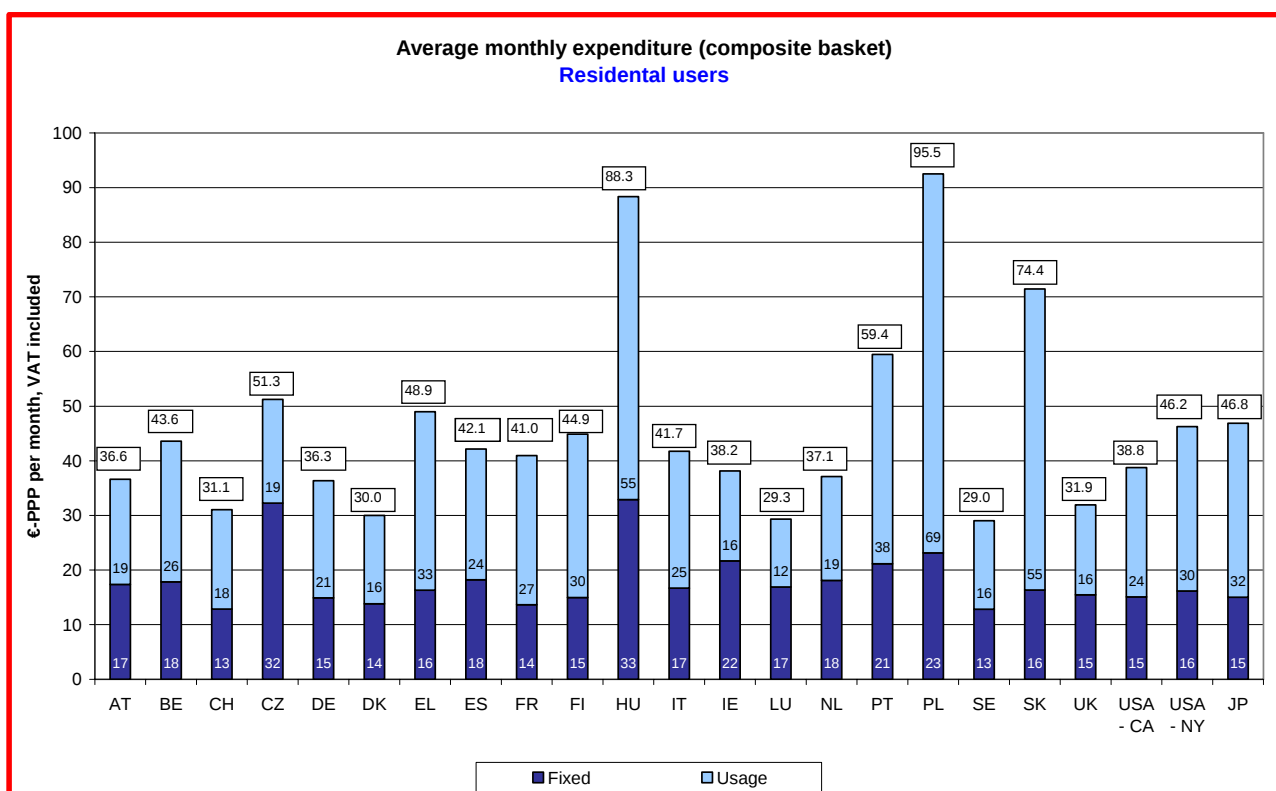
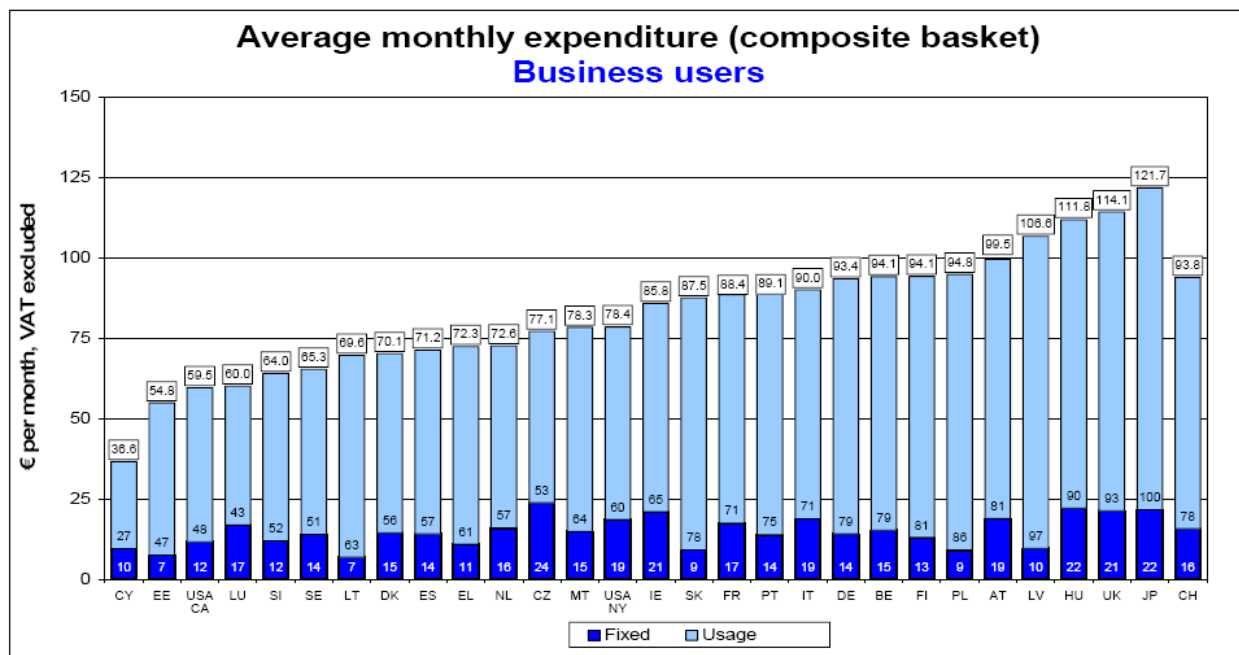


Figure 88



Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

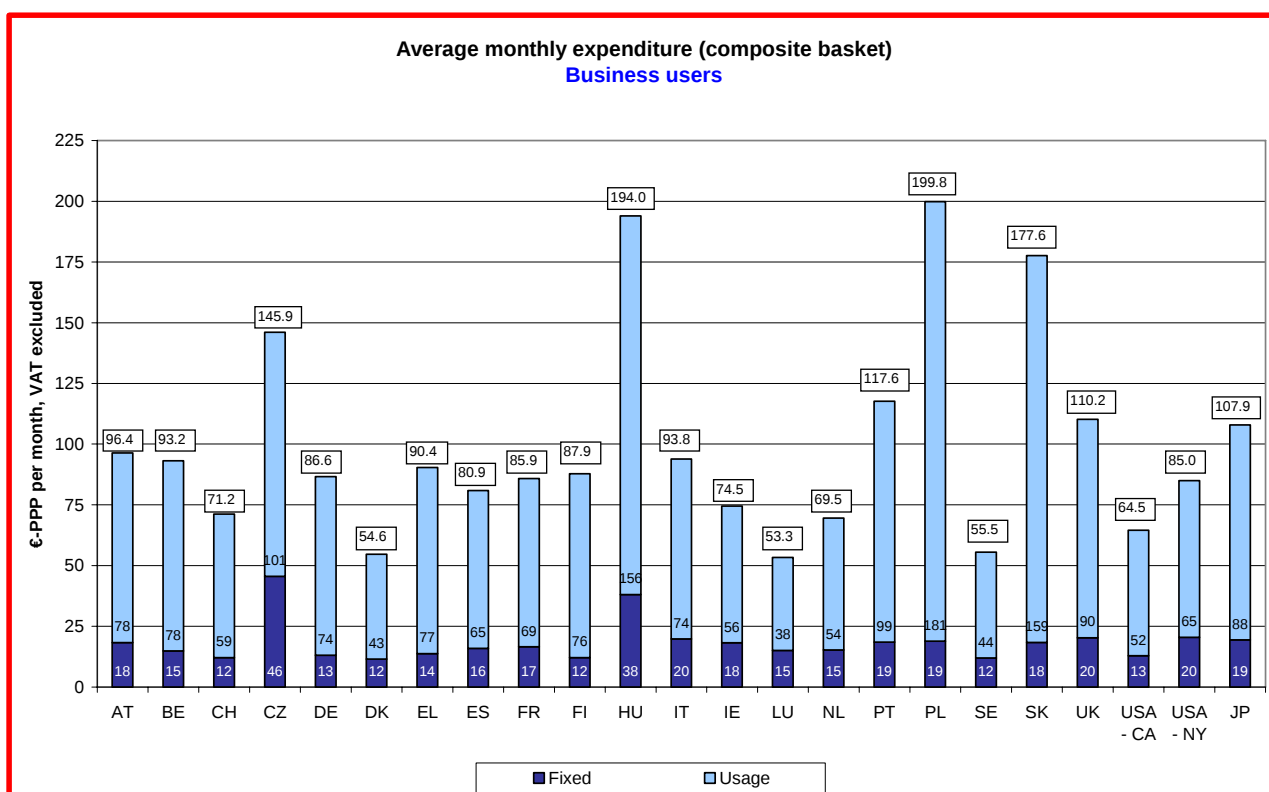


Figure 89

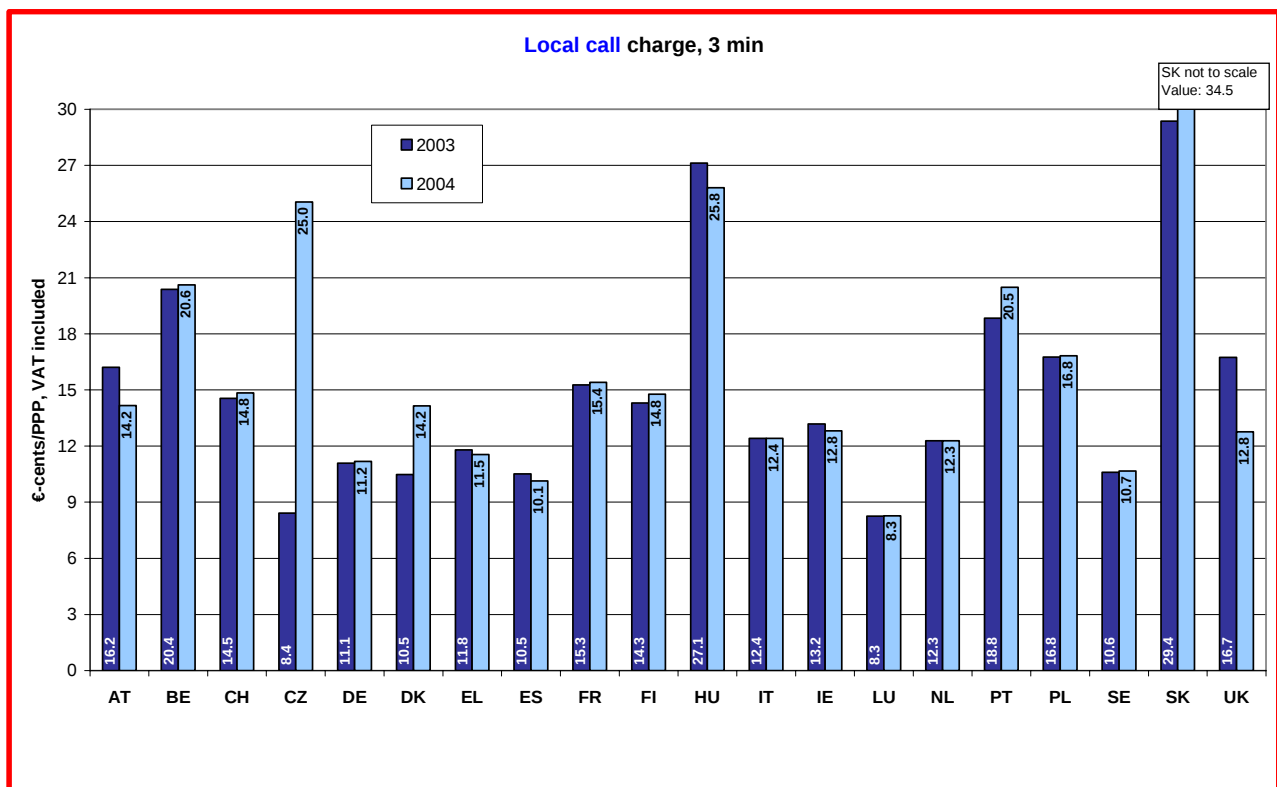
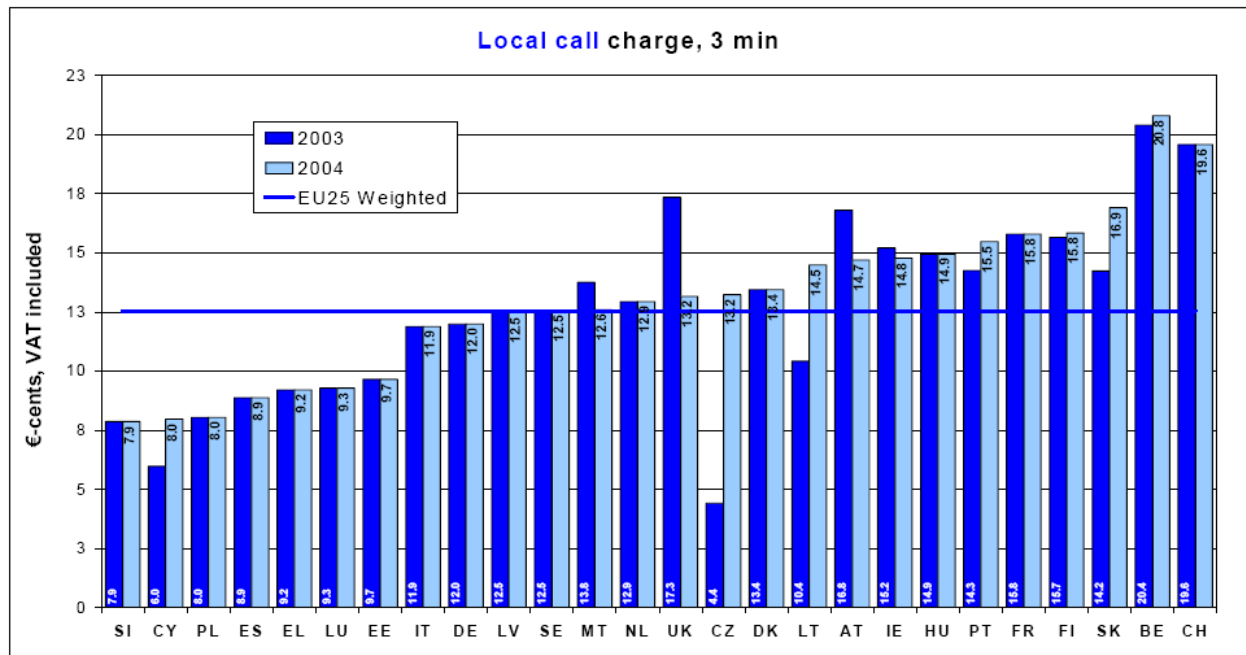
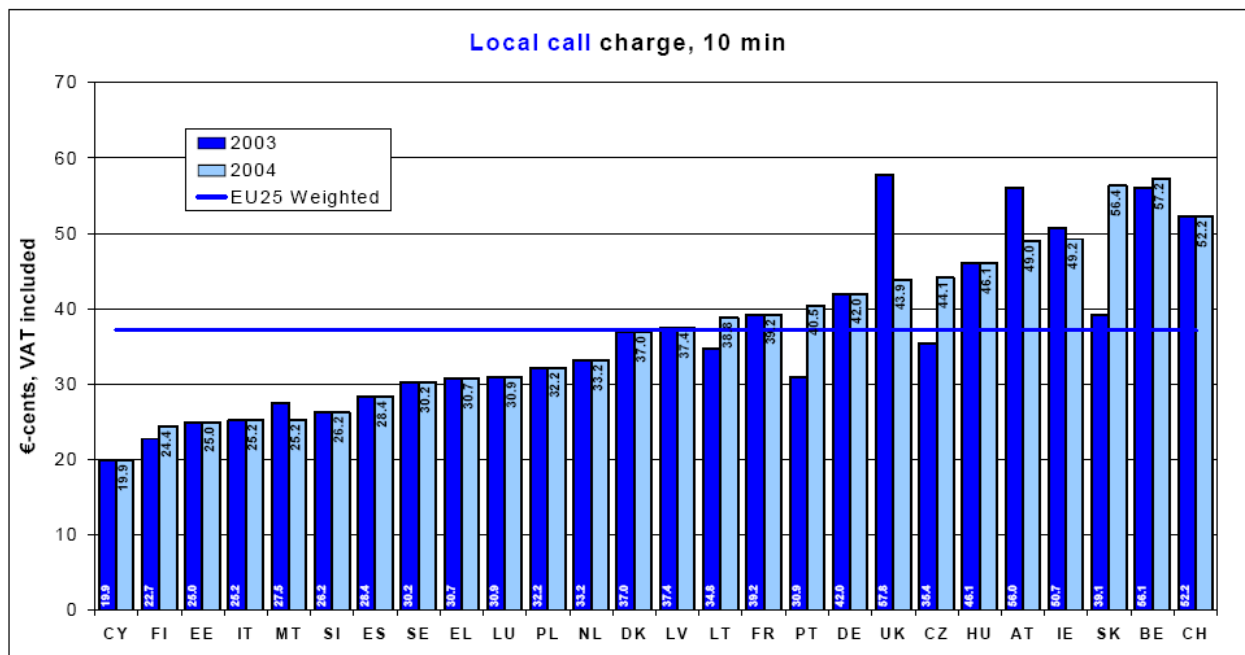


Figure 90



Source for Switzerland: OFCOM Switzerland.

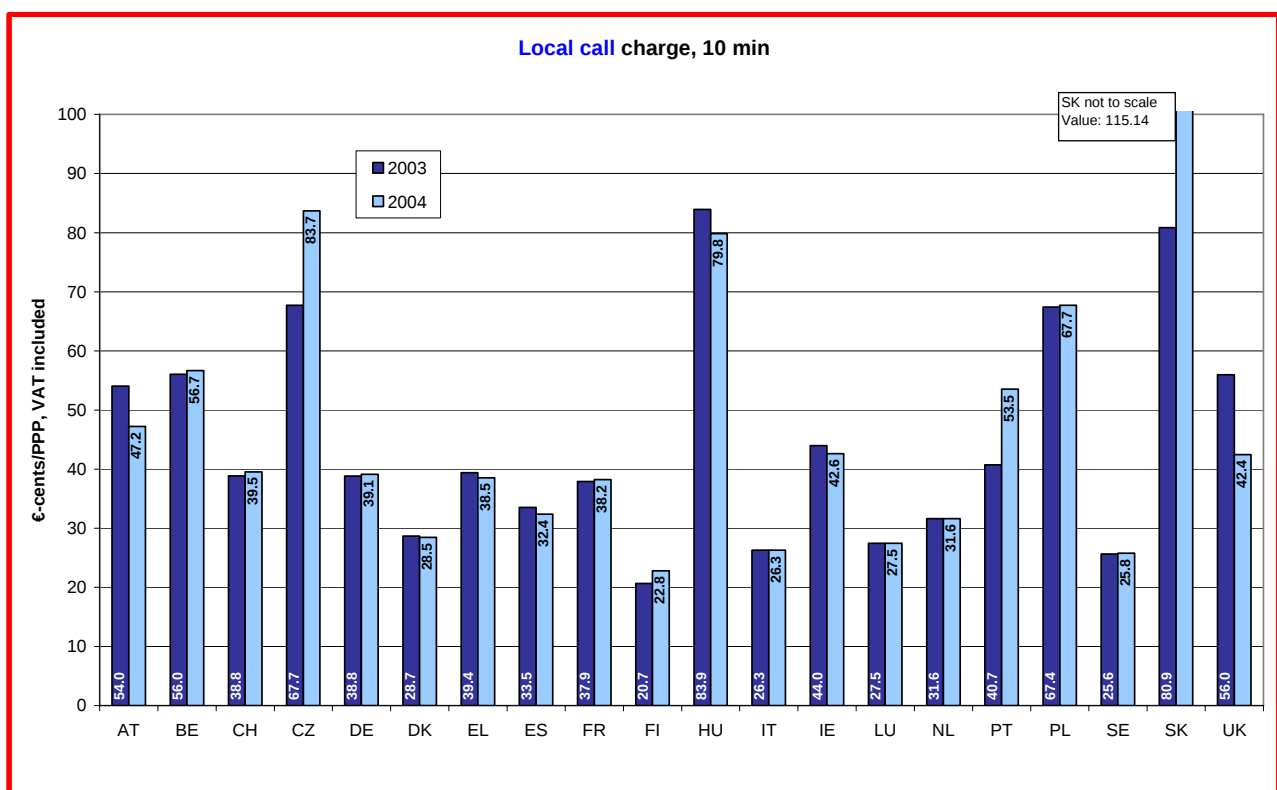
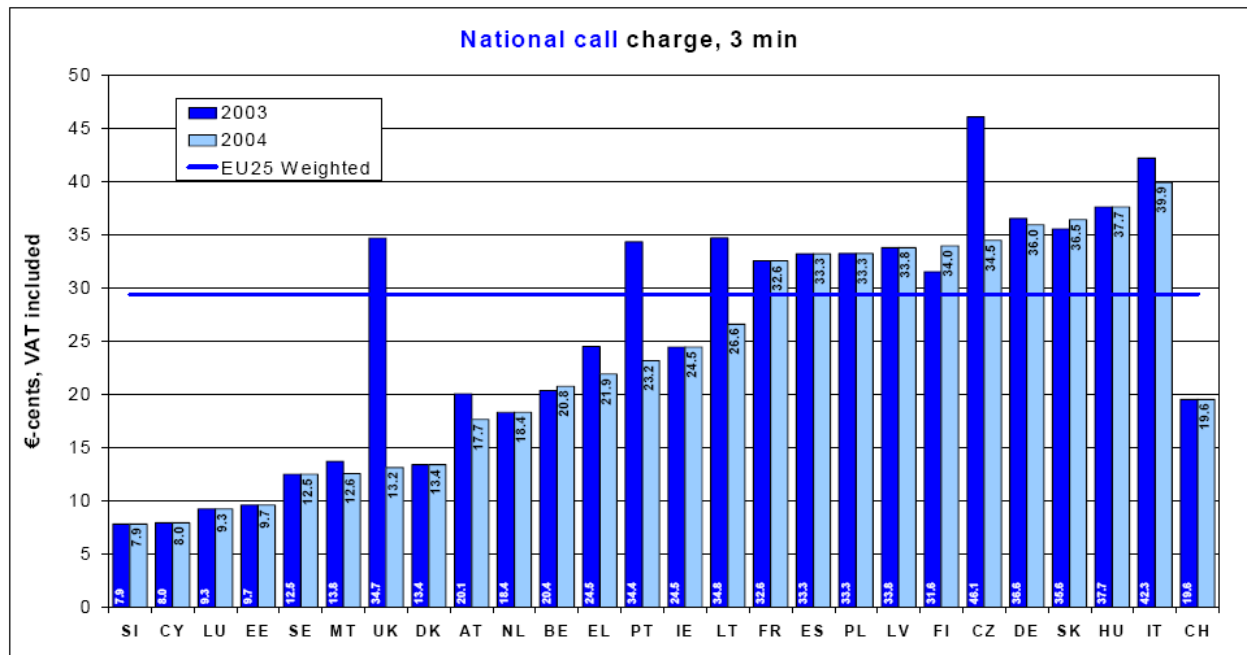


Figure 91



Source for Switzerland: OFCOM Switzerland.

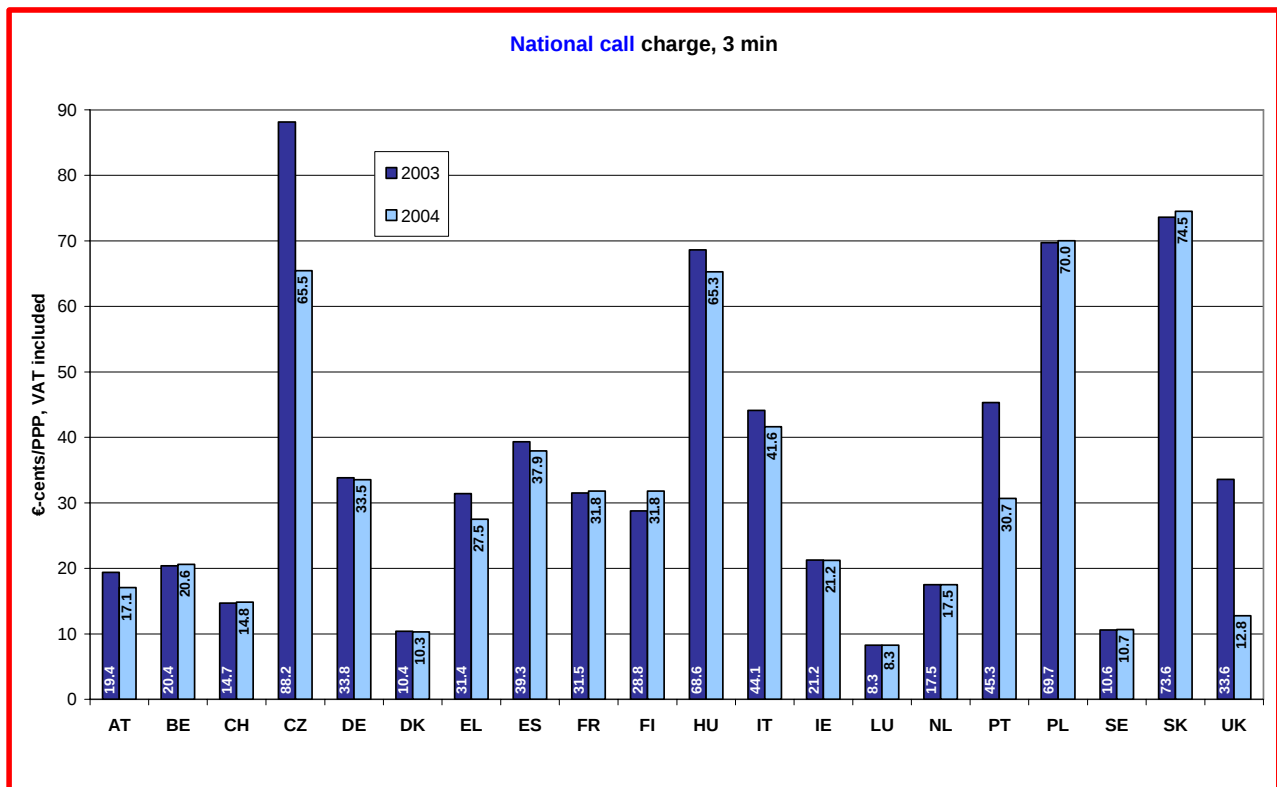
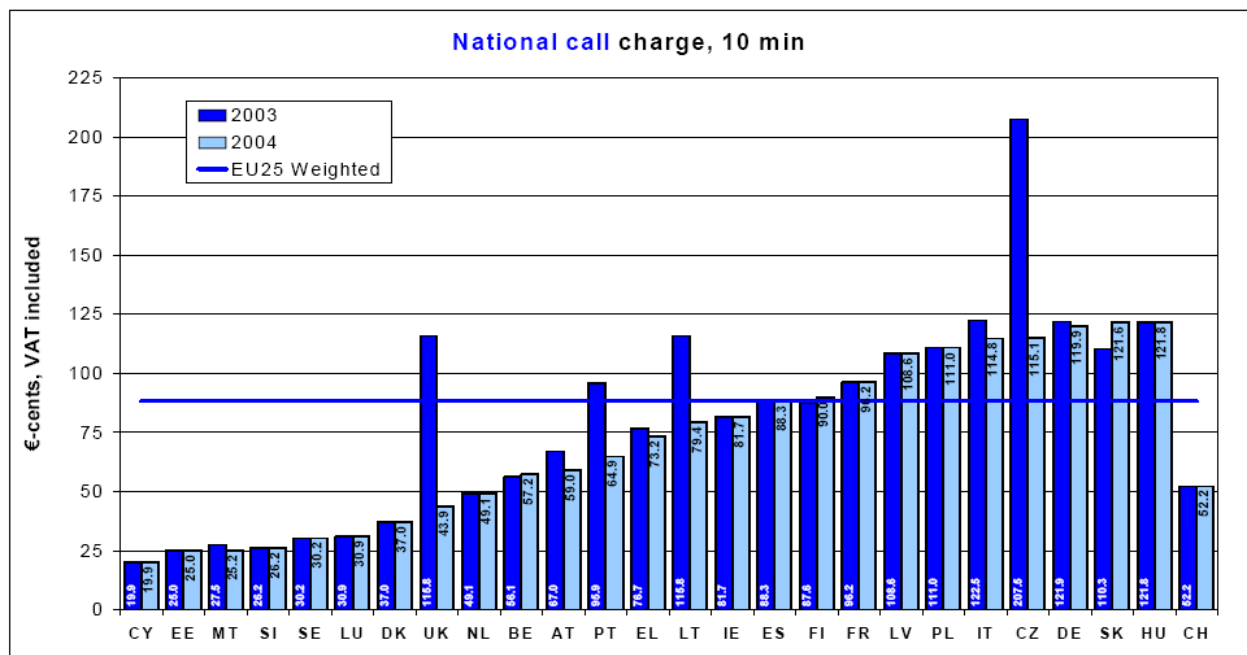


Figure 92



Source for Switzerland: OFCOM Switzerland.

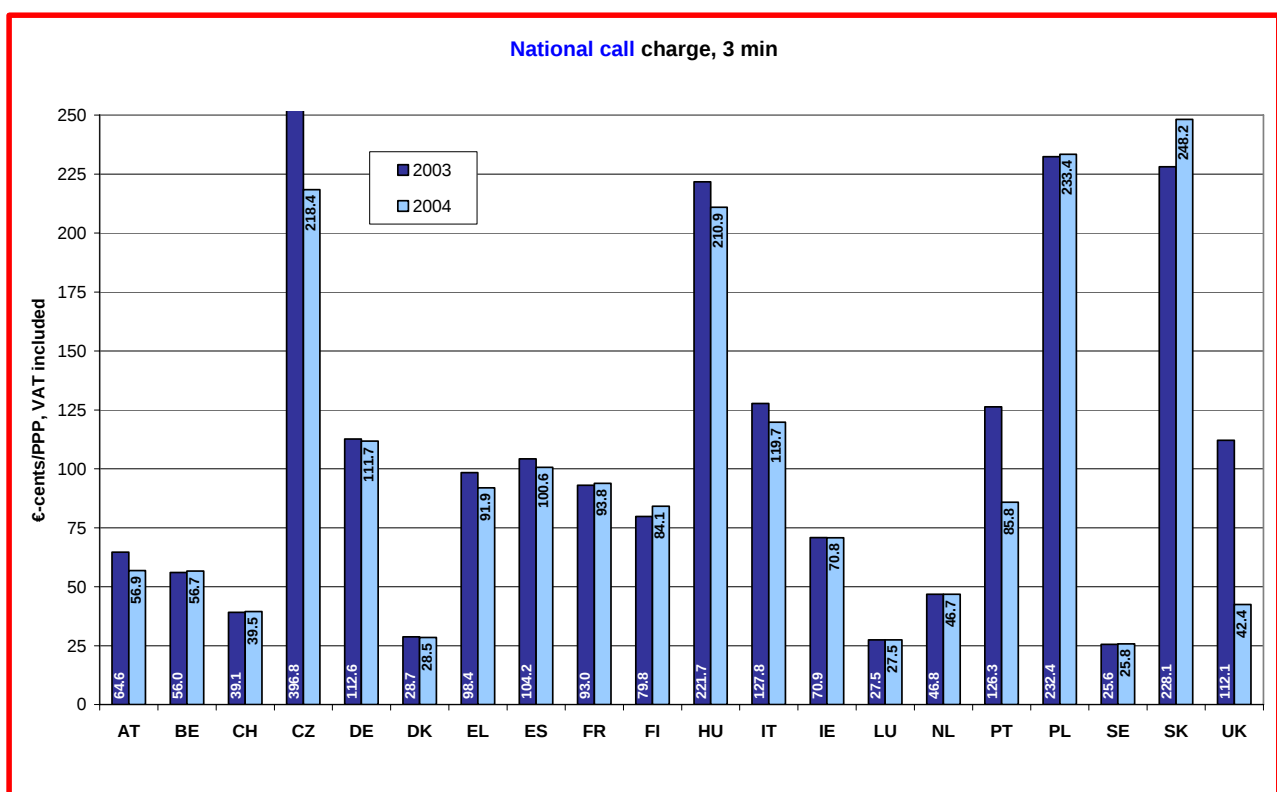


Figure 93

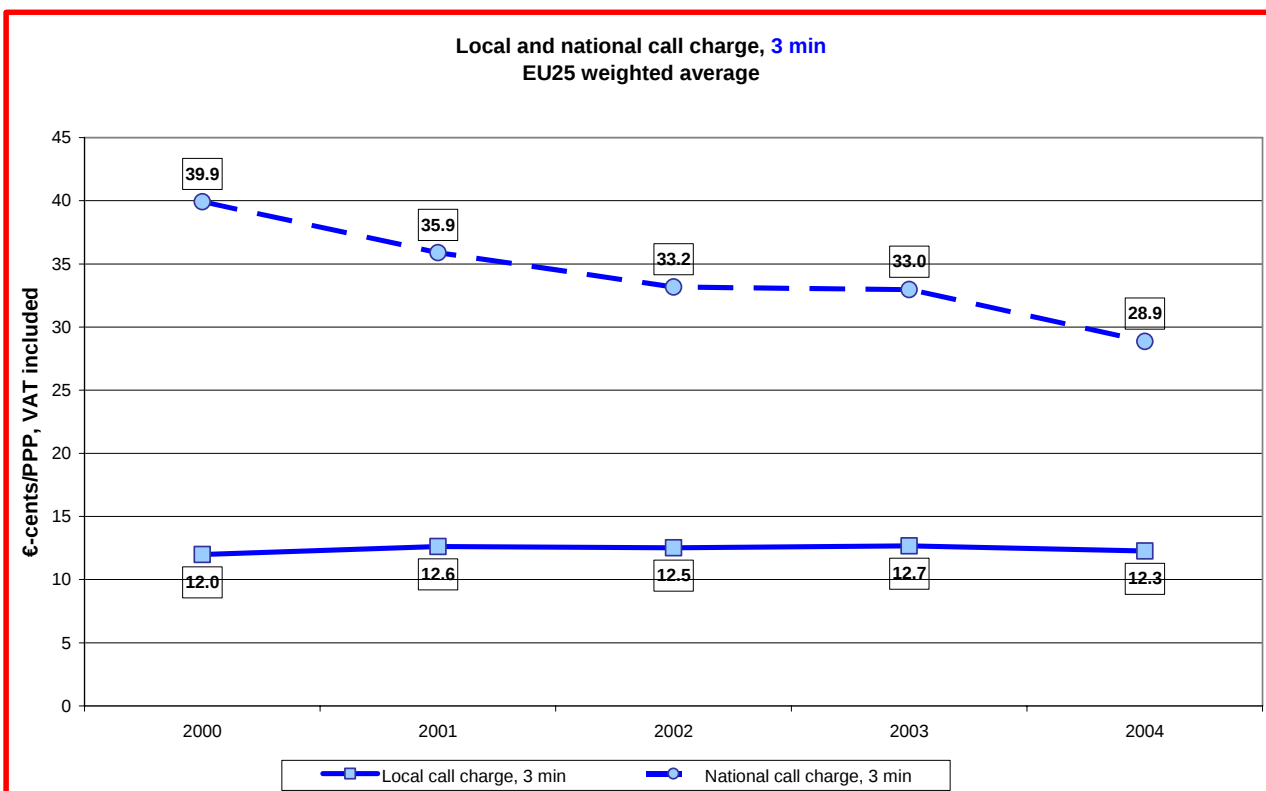
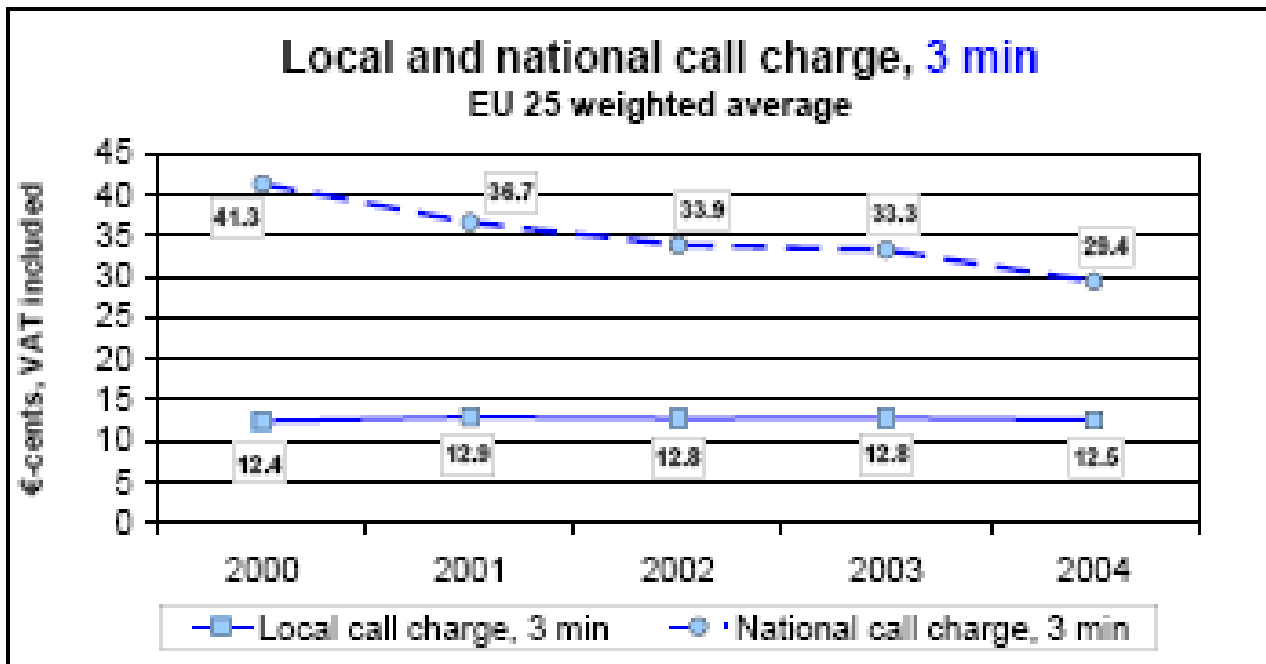


Figure 94

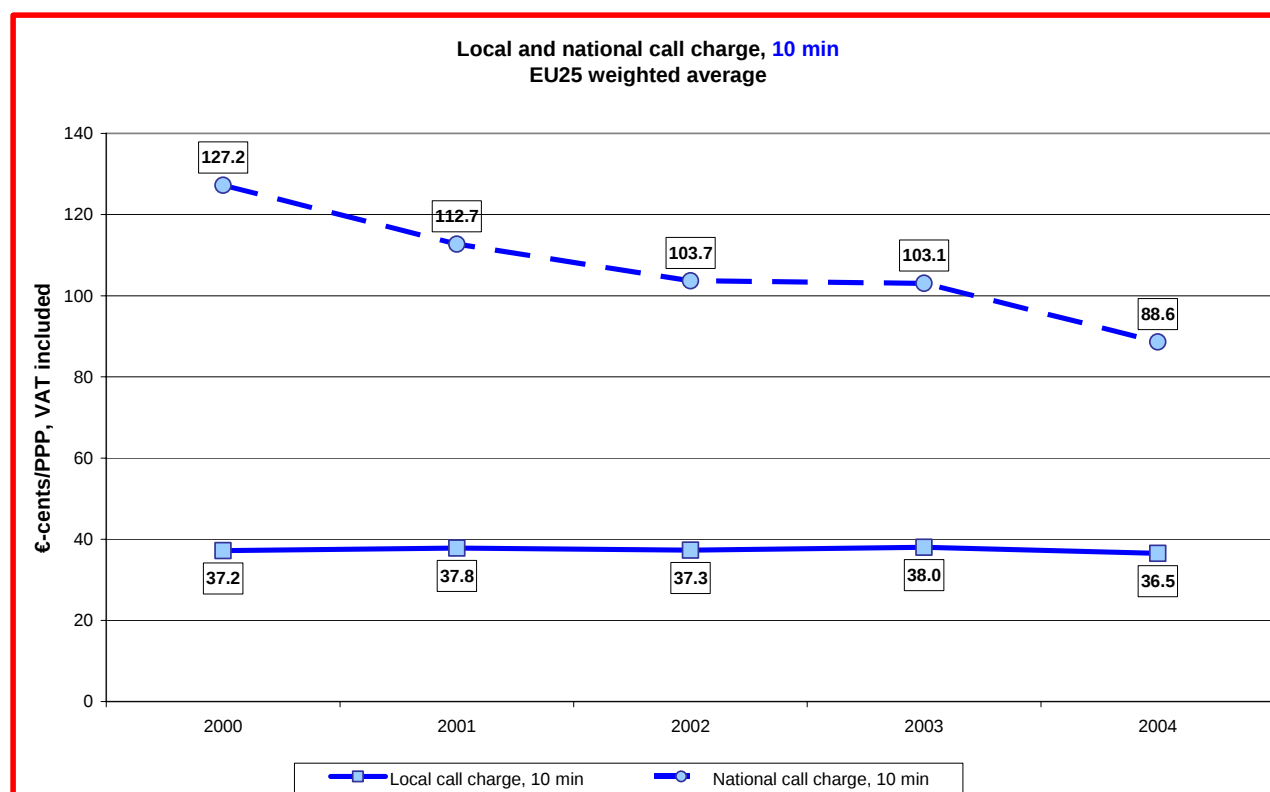
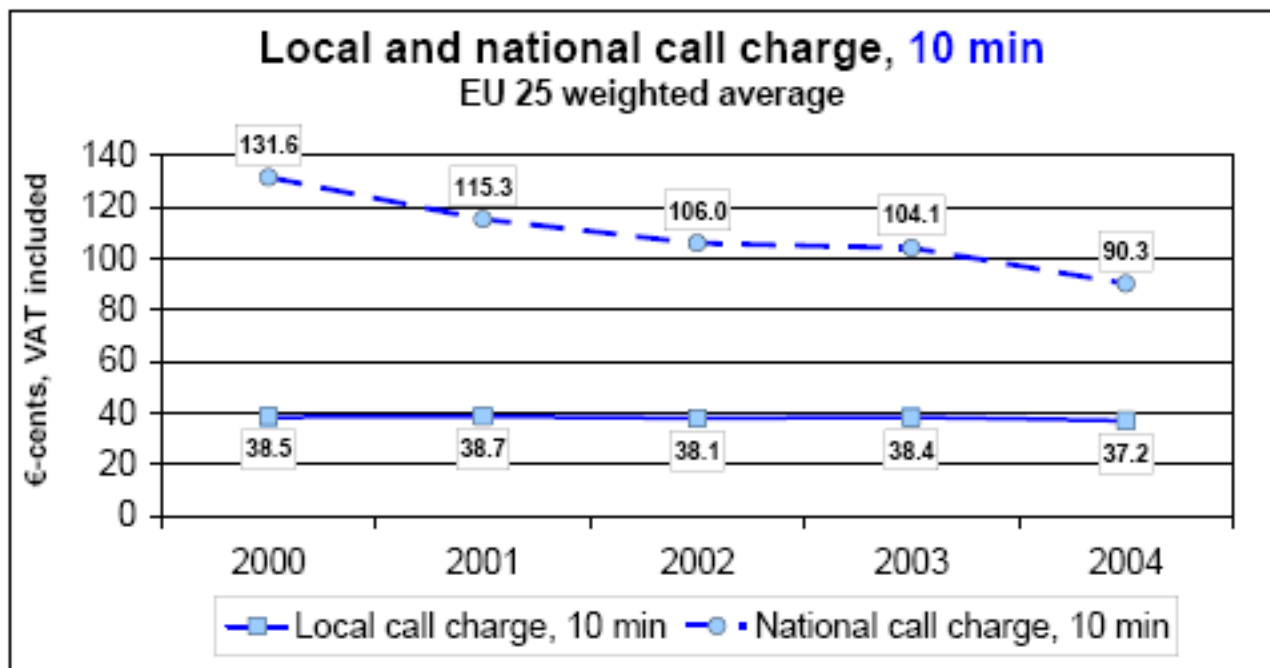


Figure 93a

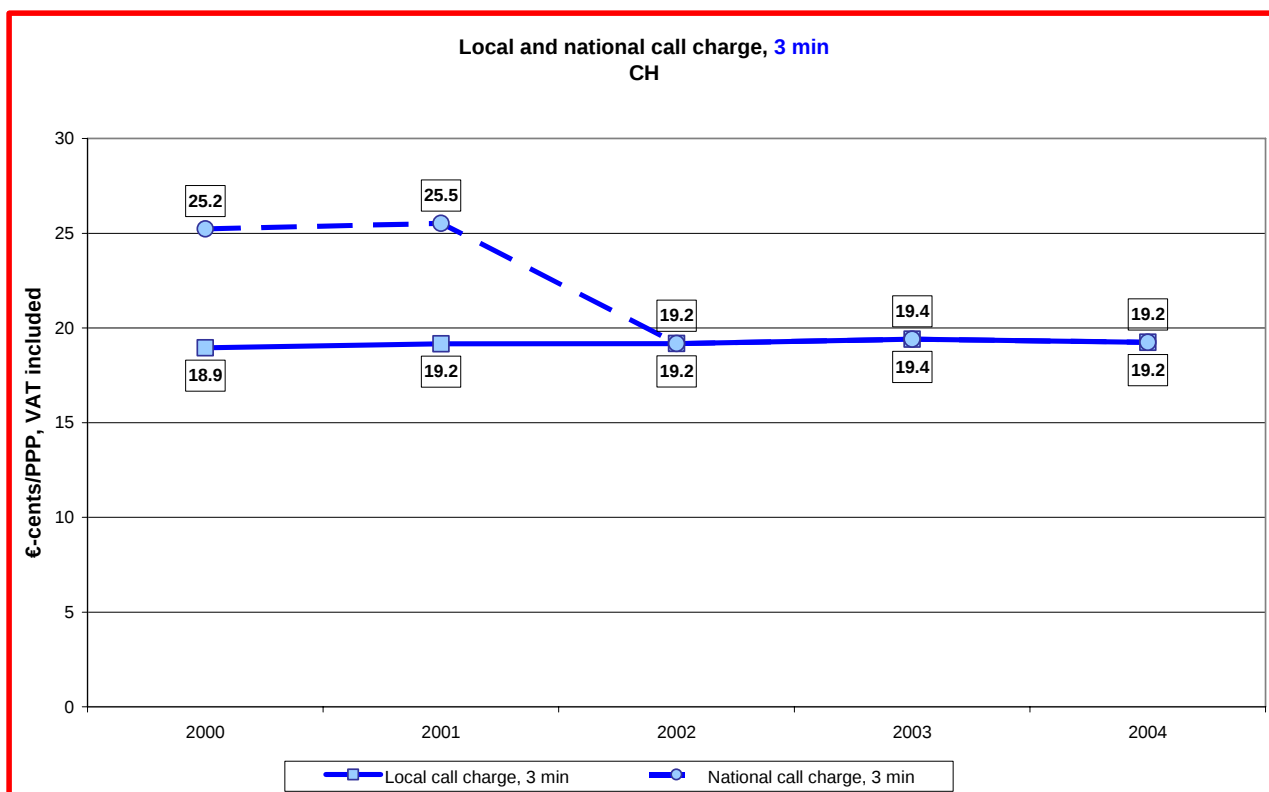
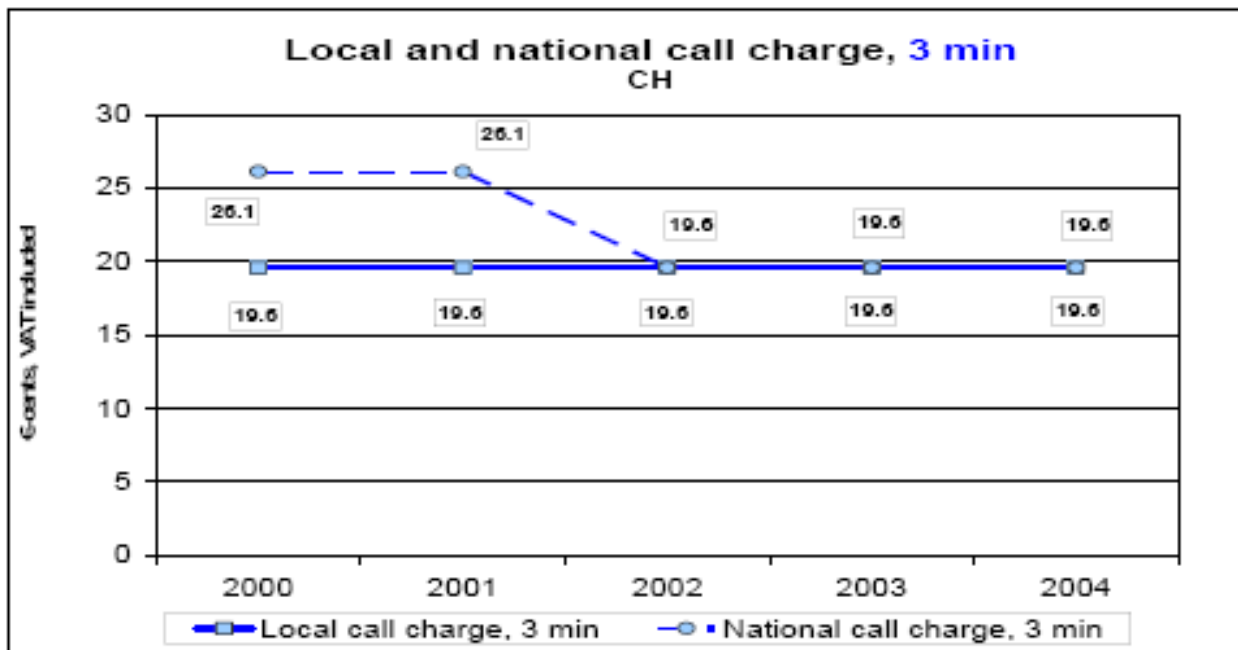


Figure 94a

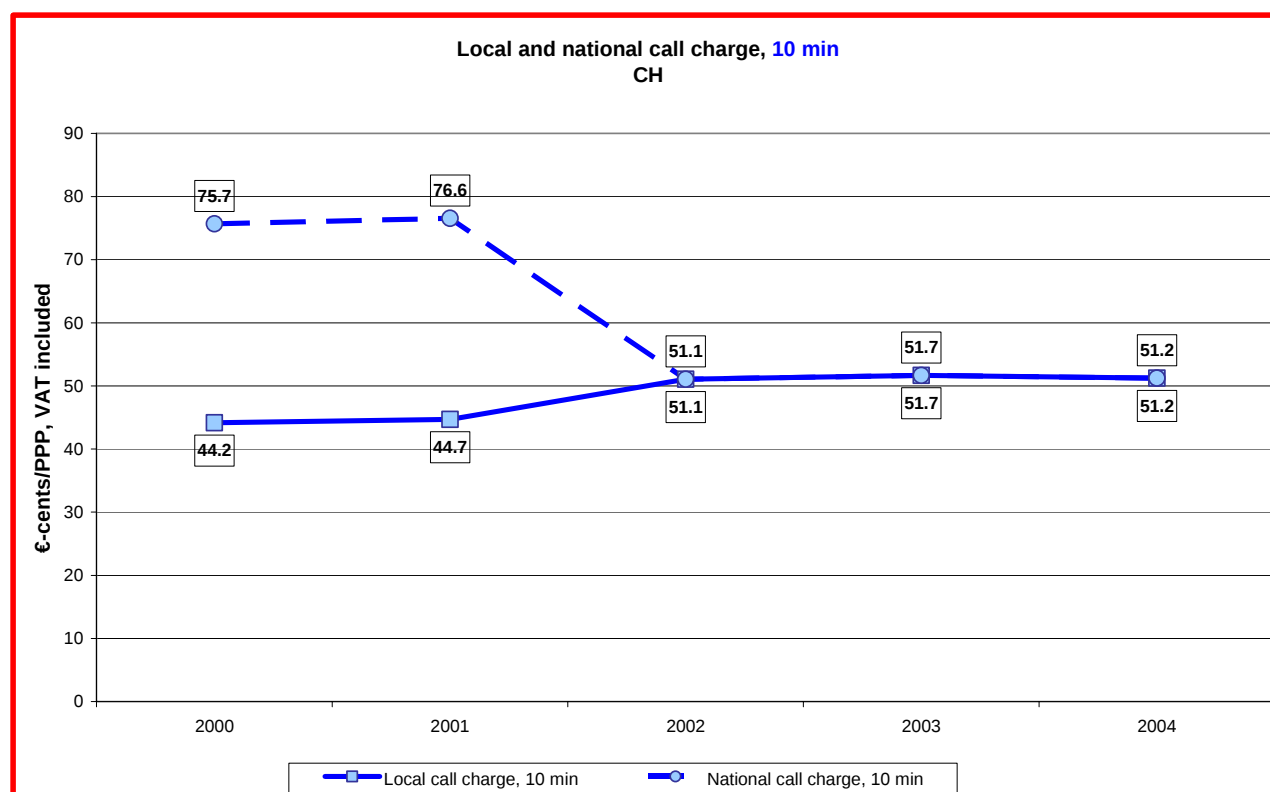
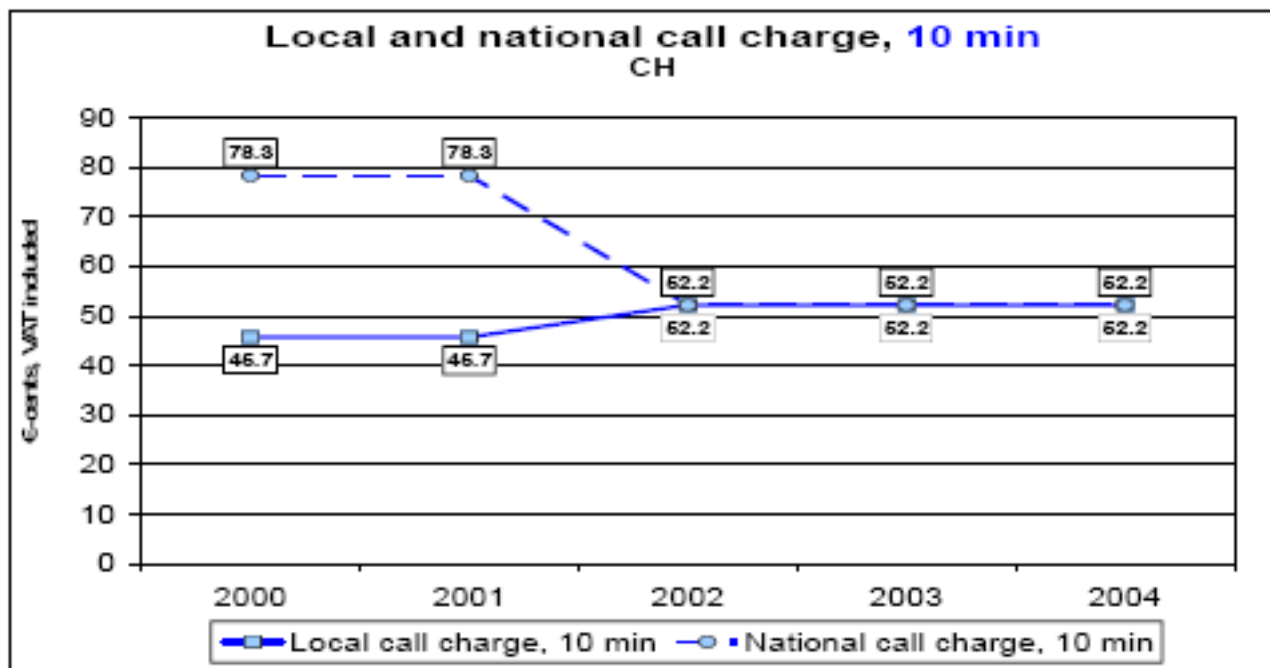


Figure 95

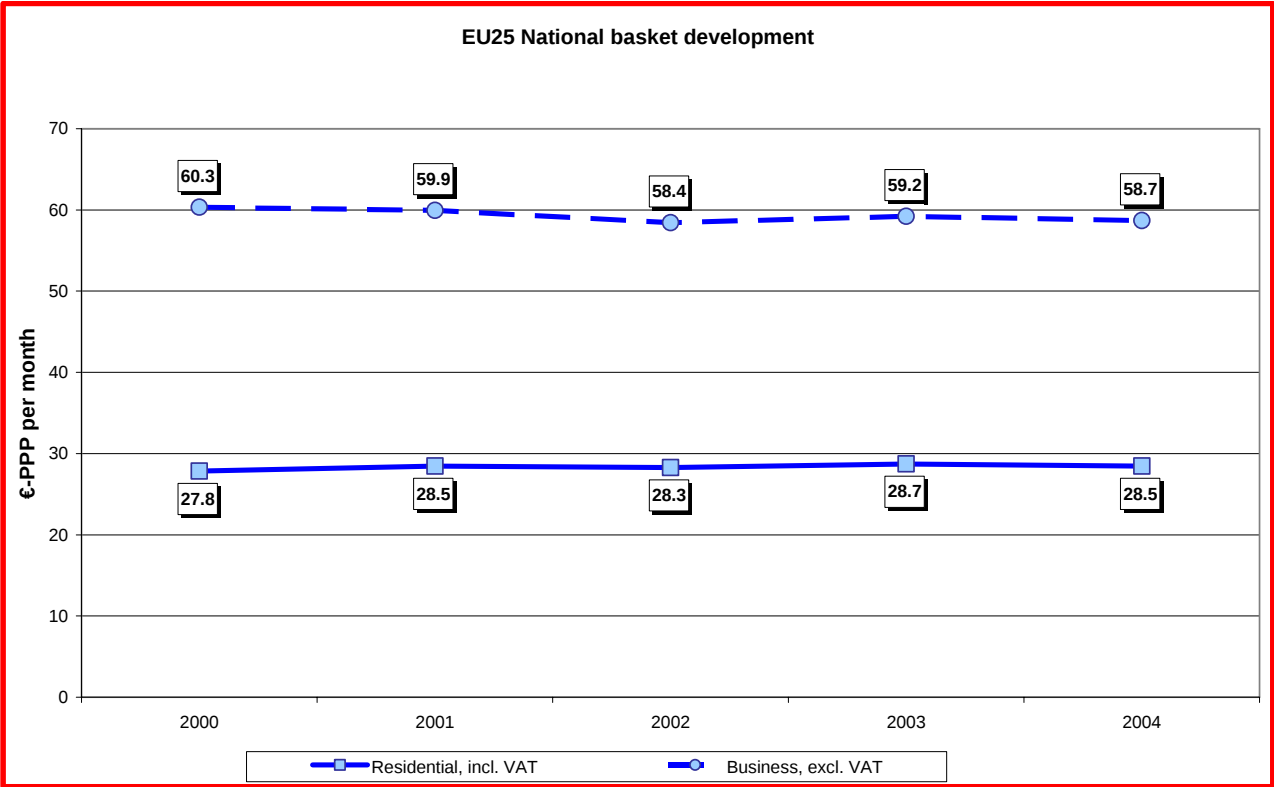
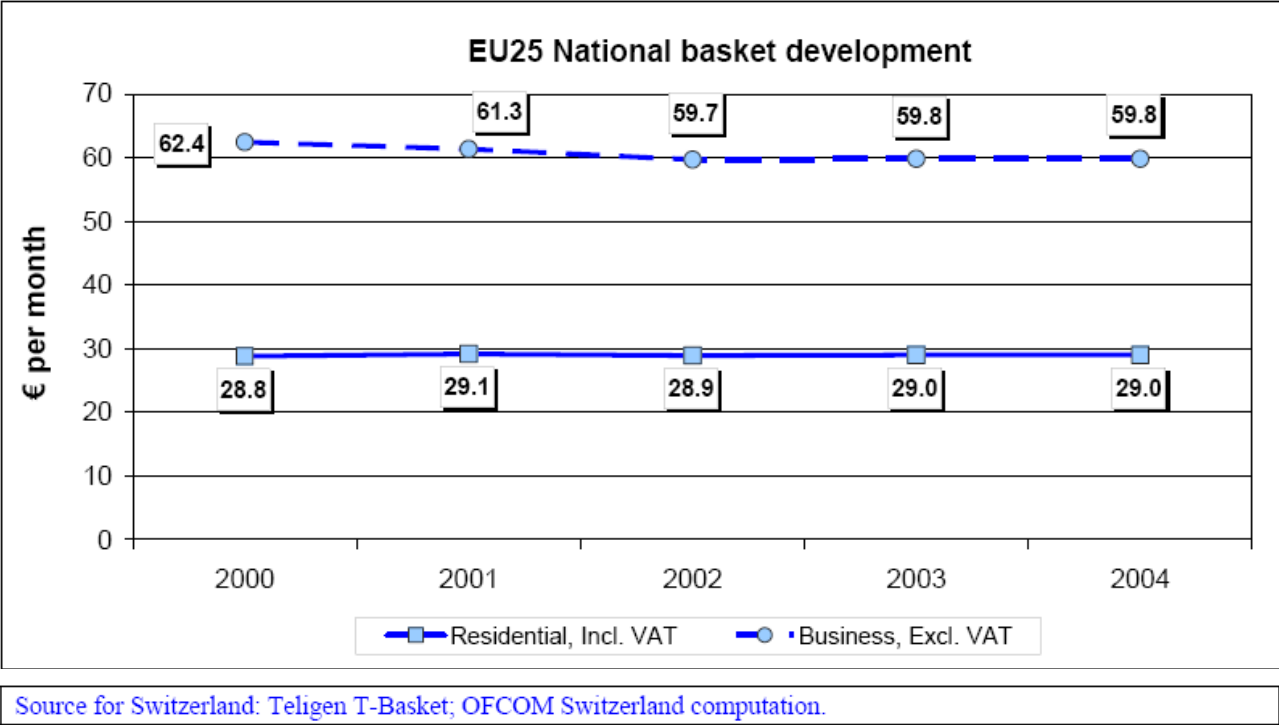
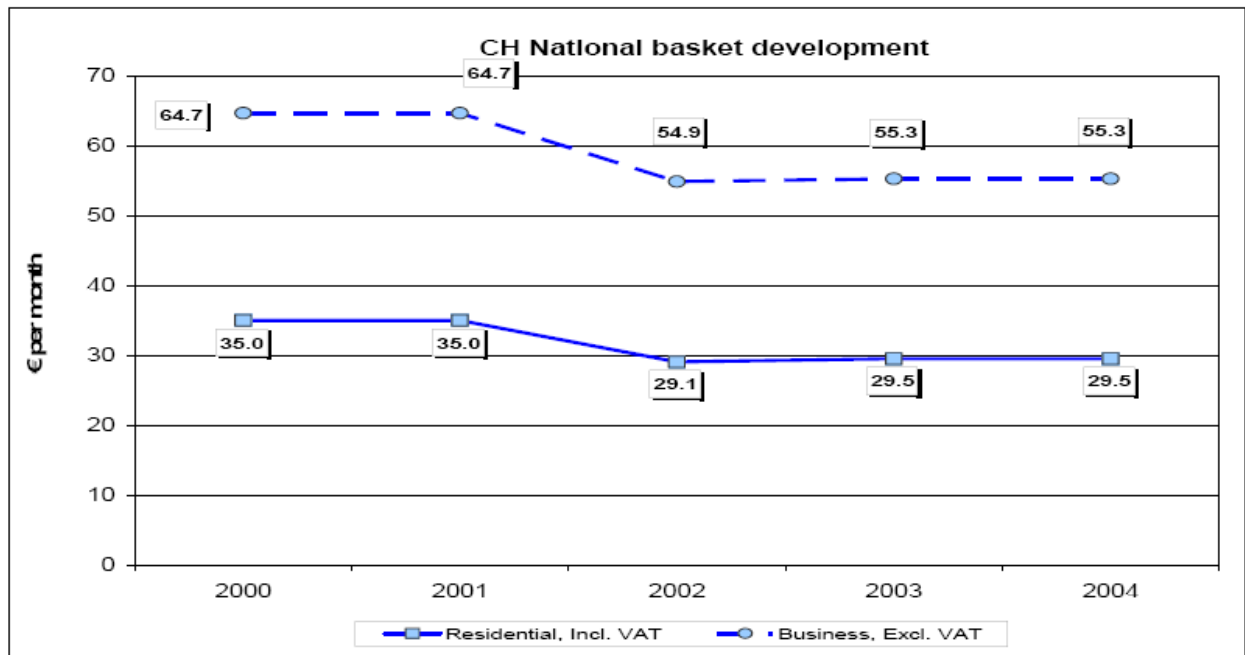


Figure 95a



Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

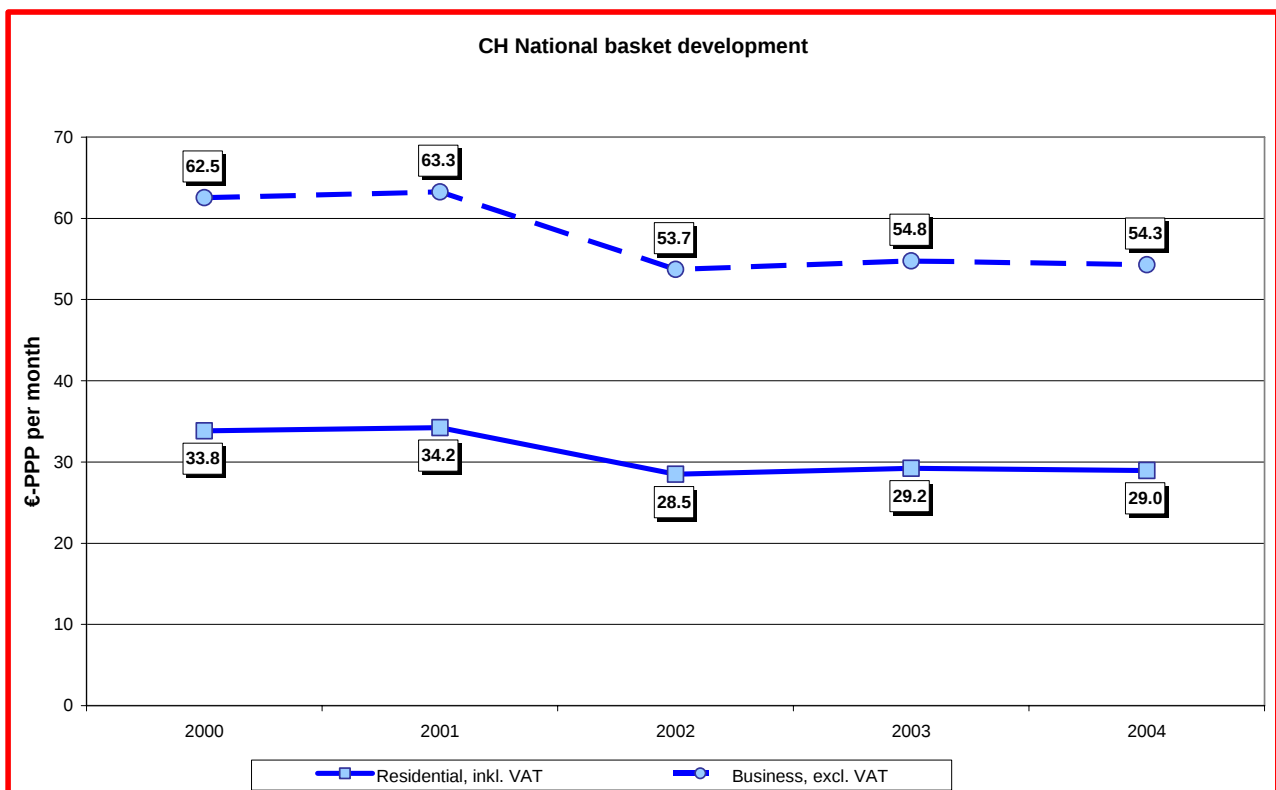
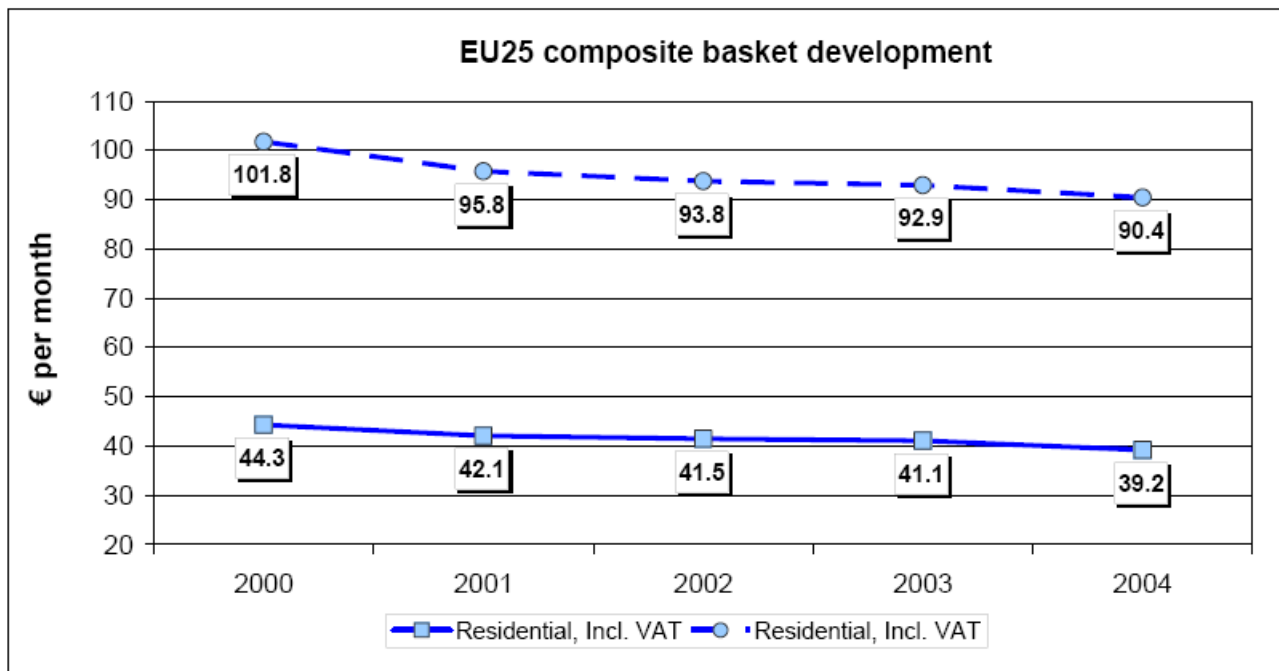


Figure 96



Since 2000 all EU25 MS are included except Malta, which is included since 2003.

Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

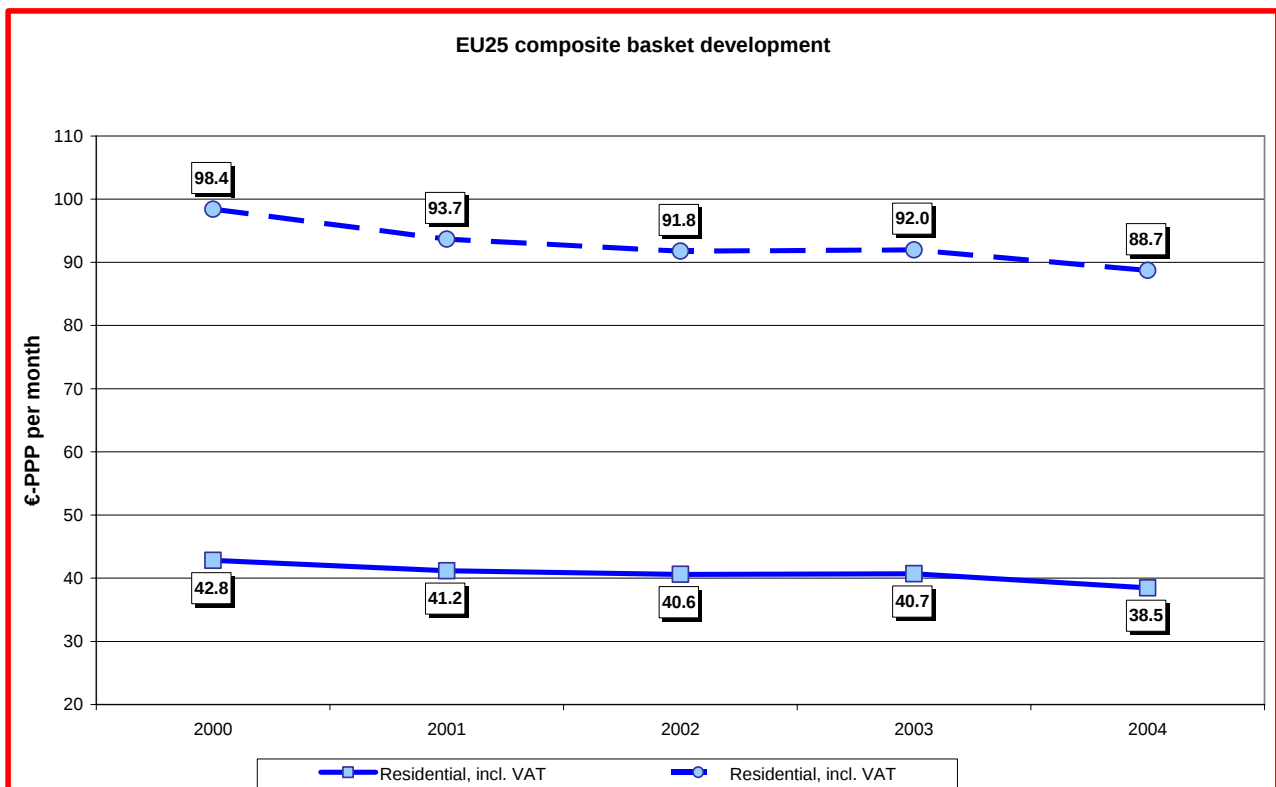
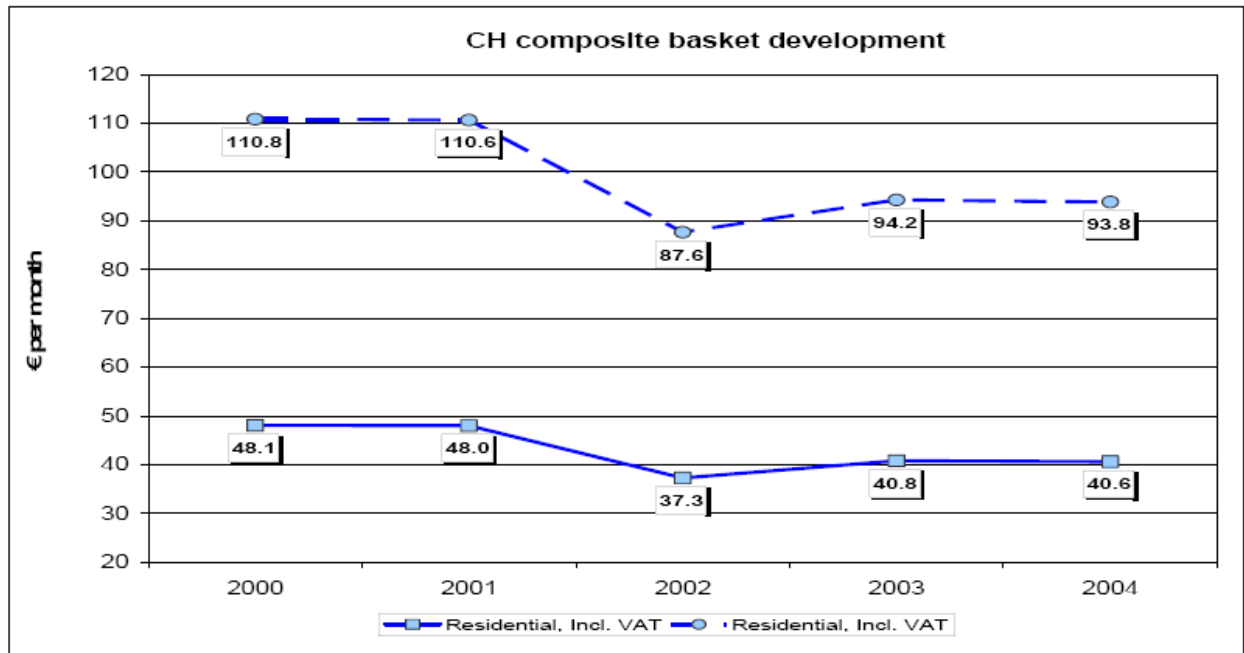


Figure 96a



Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

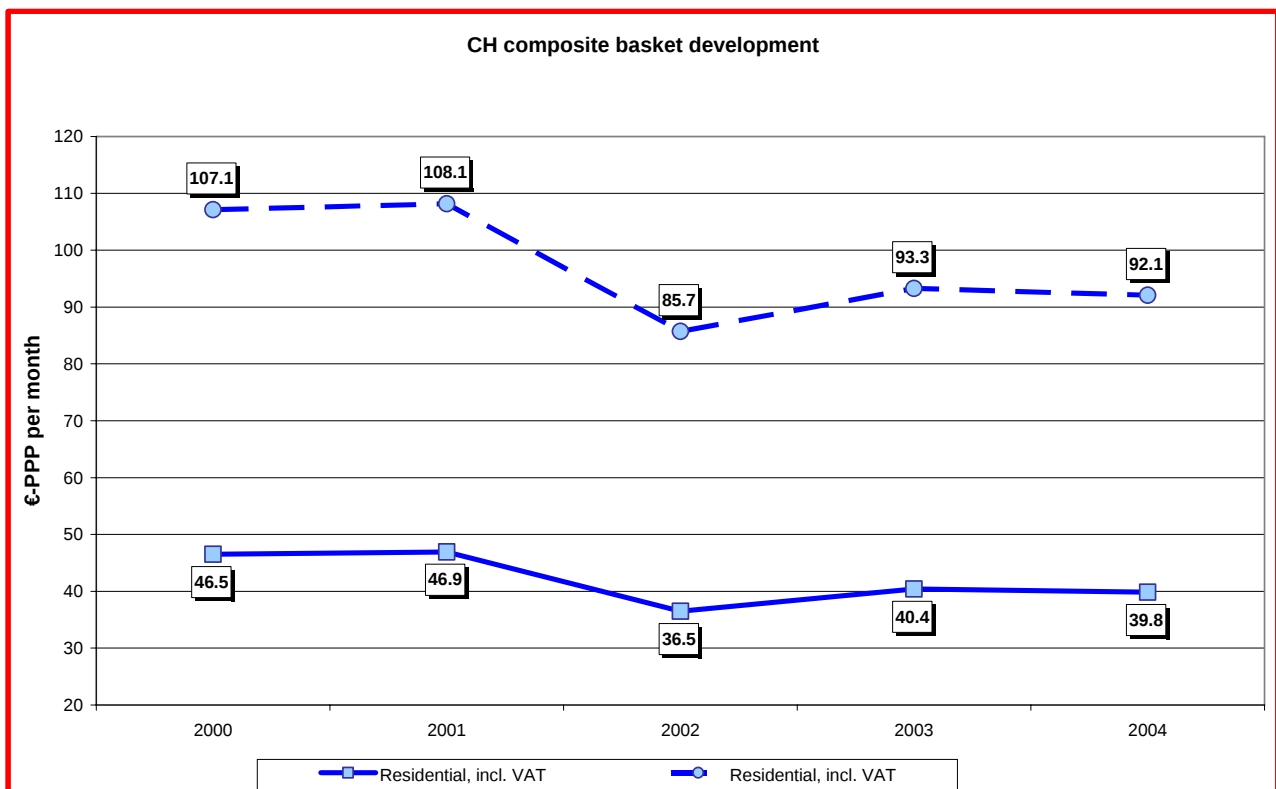


Figure 97

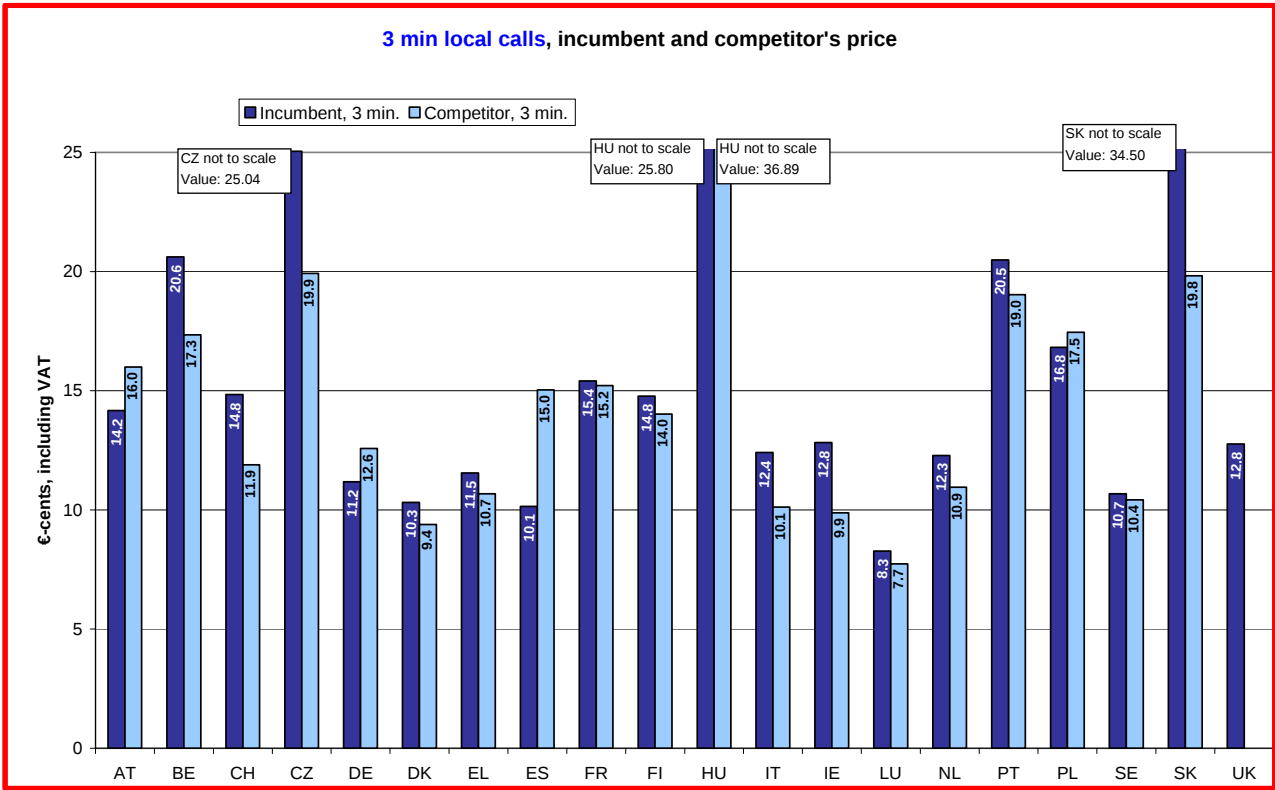
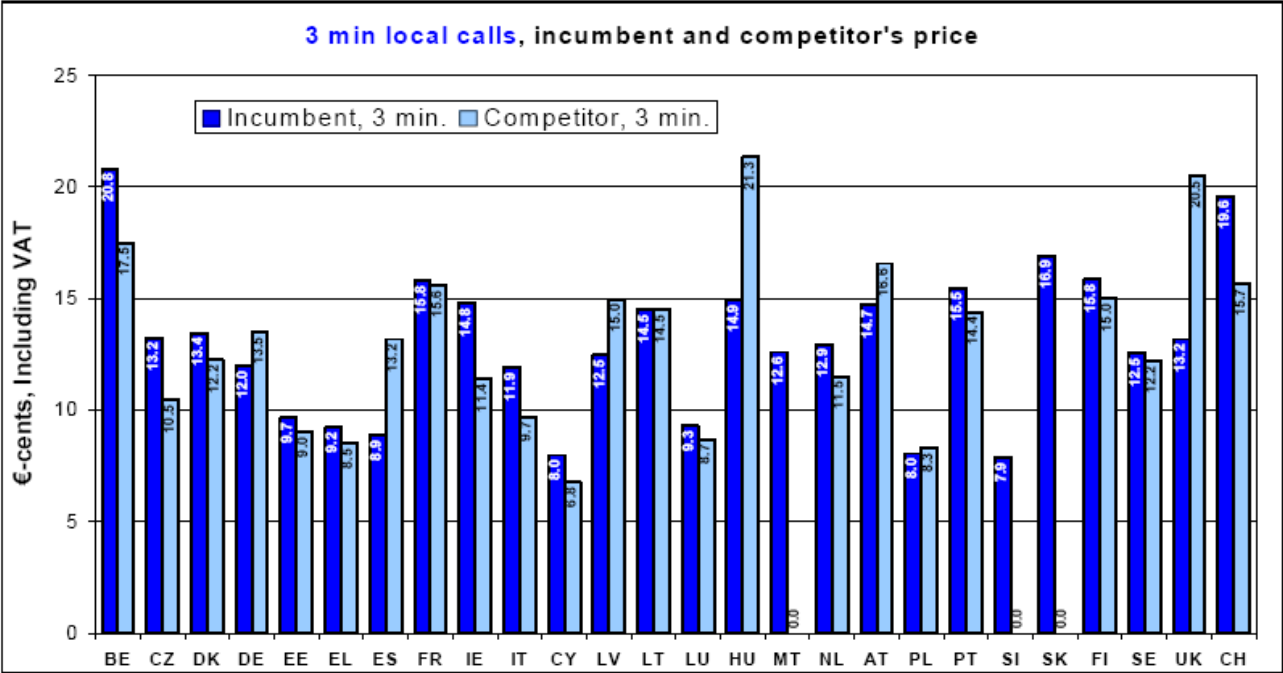
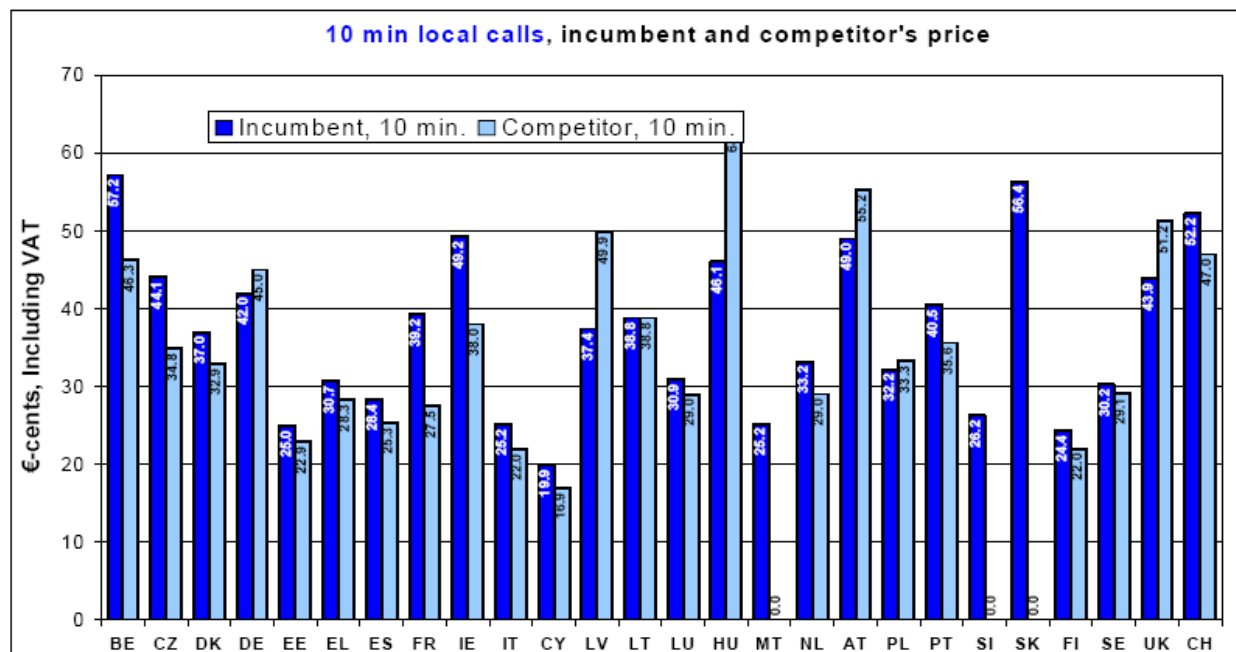


Figure 98



TG in Latvia has charges several times above the incumbent. The representation in the graph has been reduced 5 times to maintain a sensible representation of other countries.

Source for Switzerland: OFCOM Switzerland.

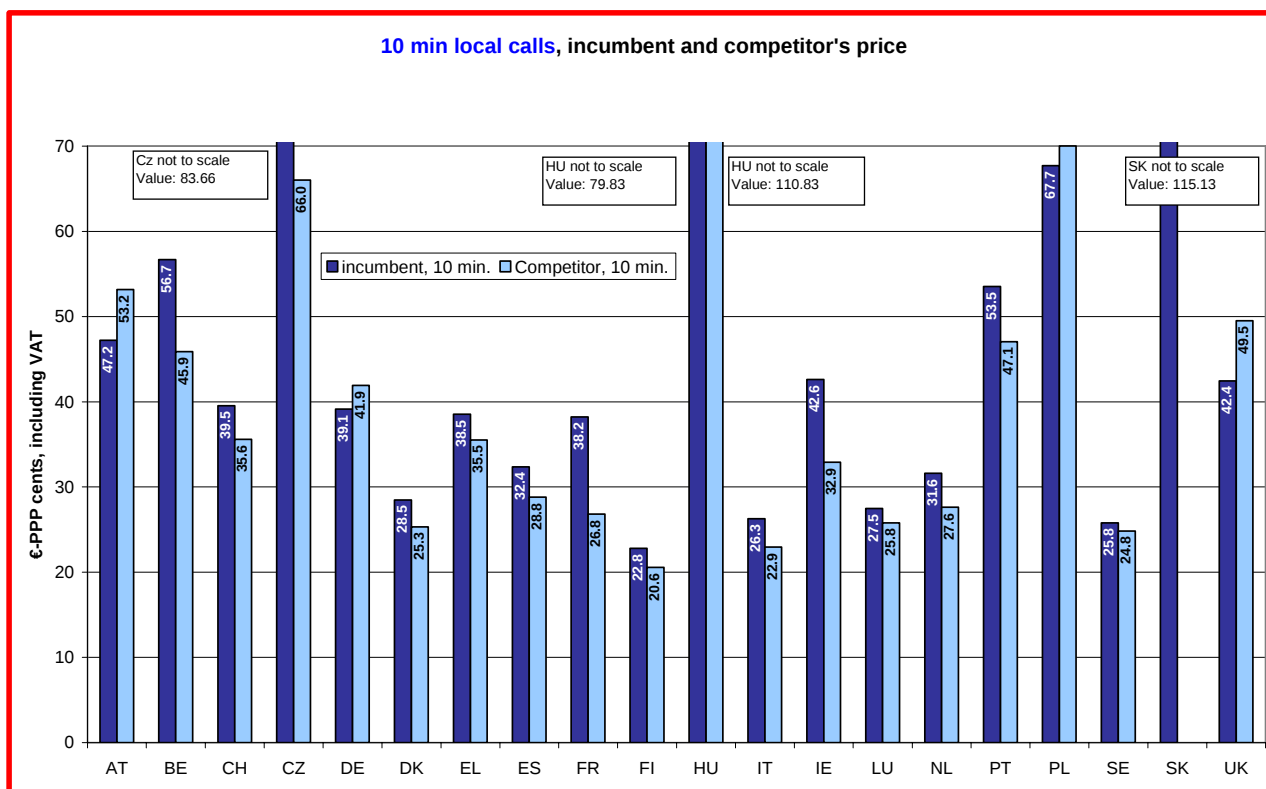
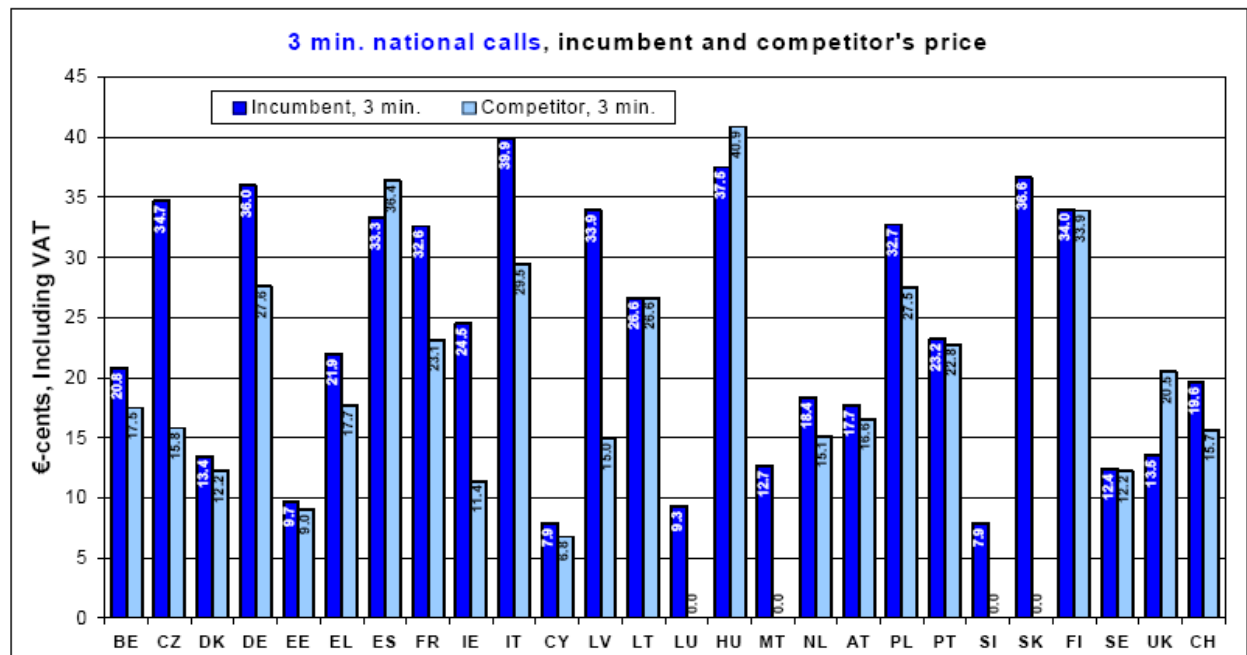


Figure 99



TG in Latvia has charges several times above the incumbent. The representation in the graph has been reduced 5 times to maintain a sensible representation of other countries.

Source for Switzerland: OFCOM Switzerland.

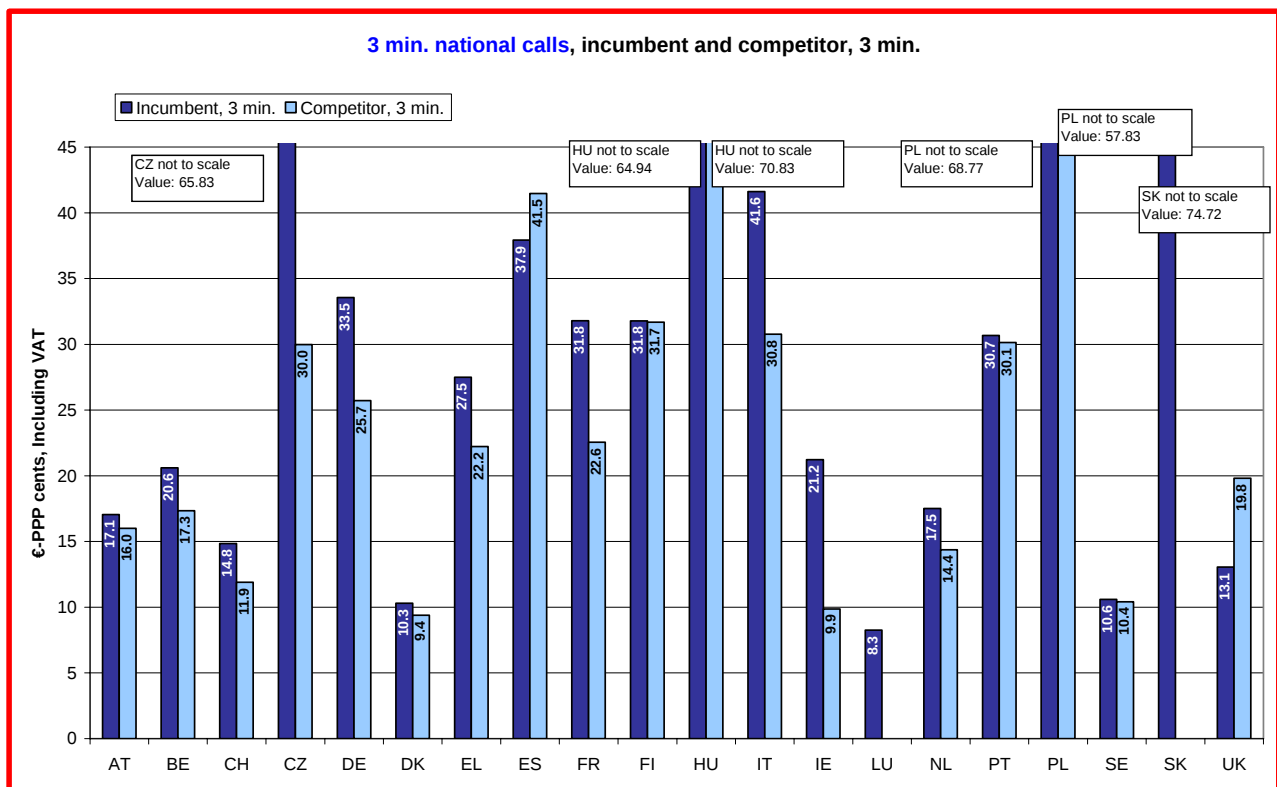
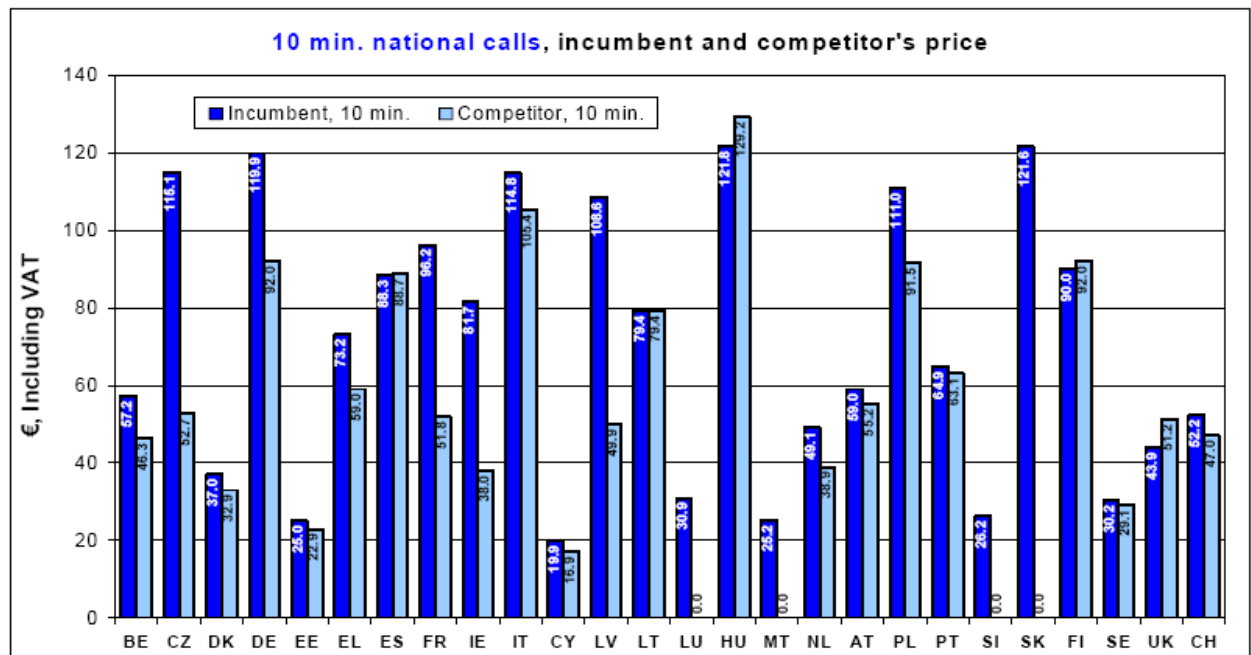


Figure 100



TG in Latvia has charges several times above the incumbent. The representation in the graph has been reduced 5 times to maintain a sensible representation of other countries.

Source for Switzerland: OFCOM Switzerland.

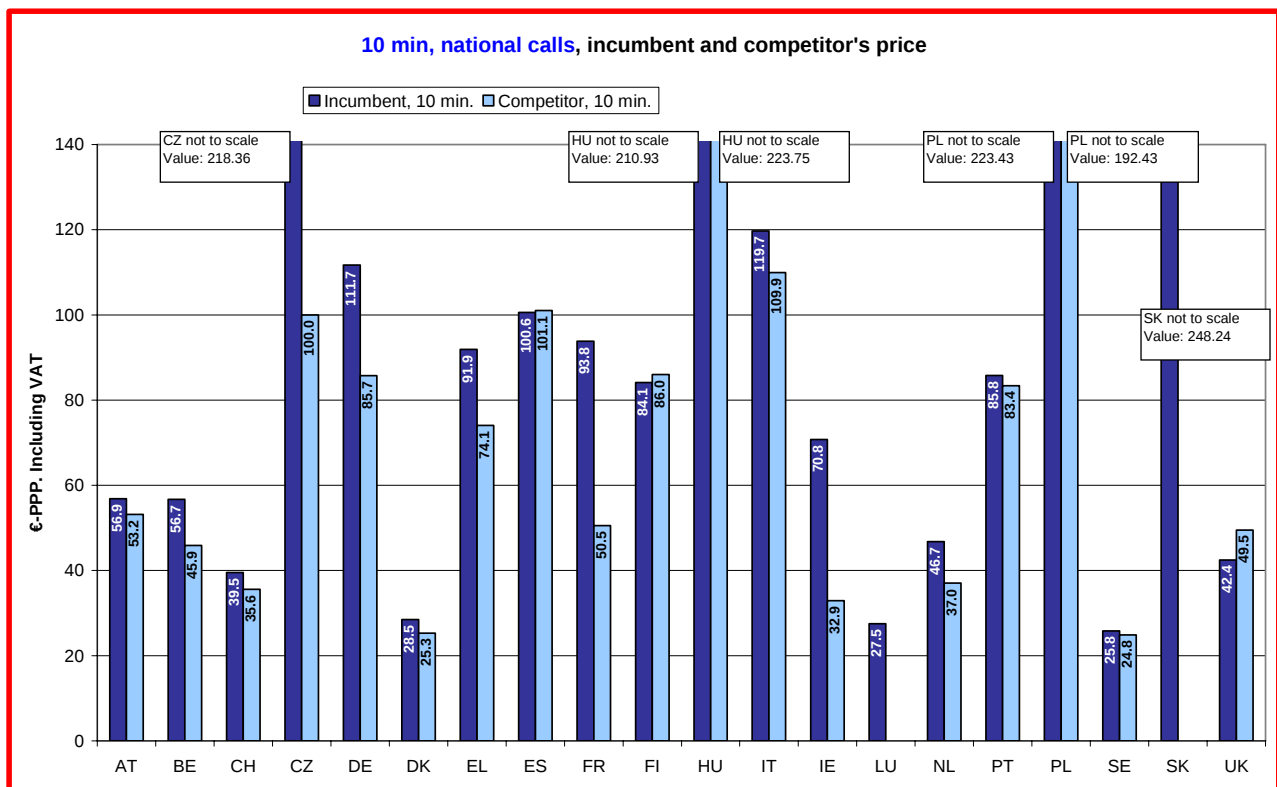
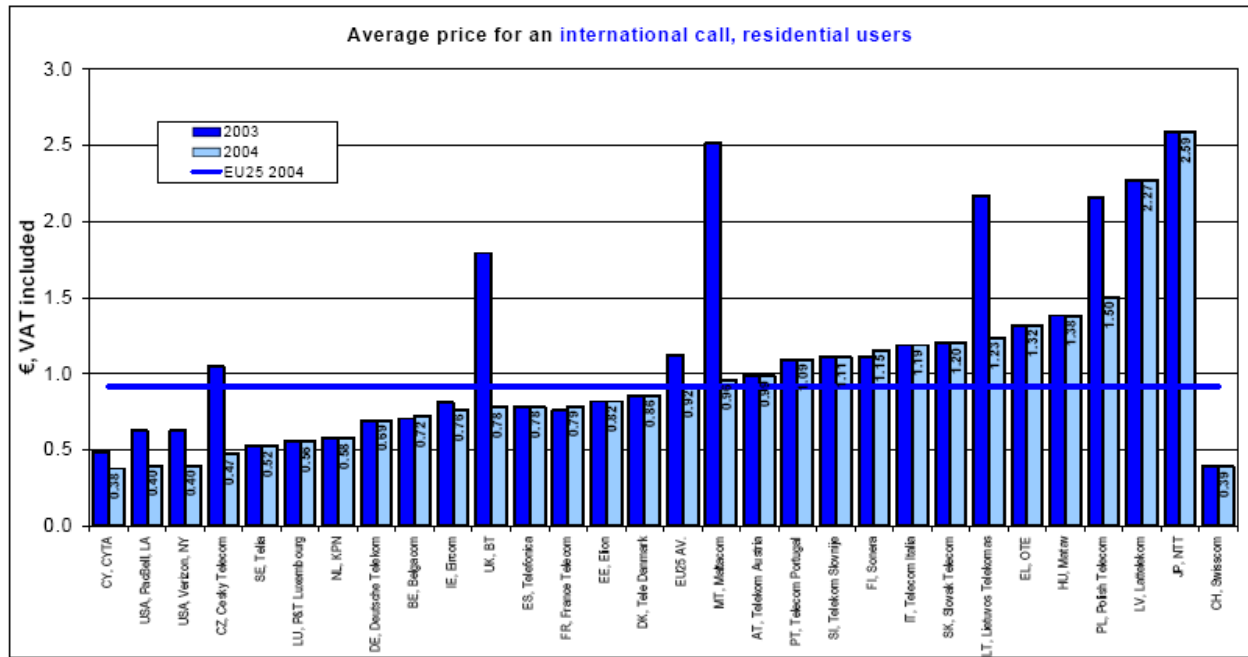


Figure 101



Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

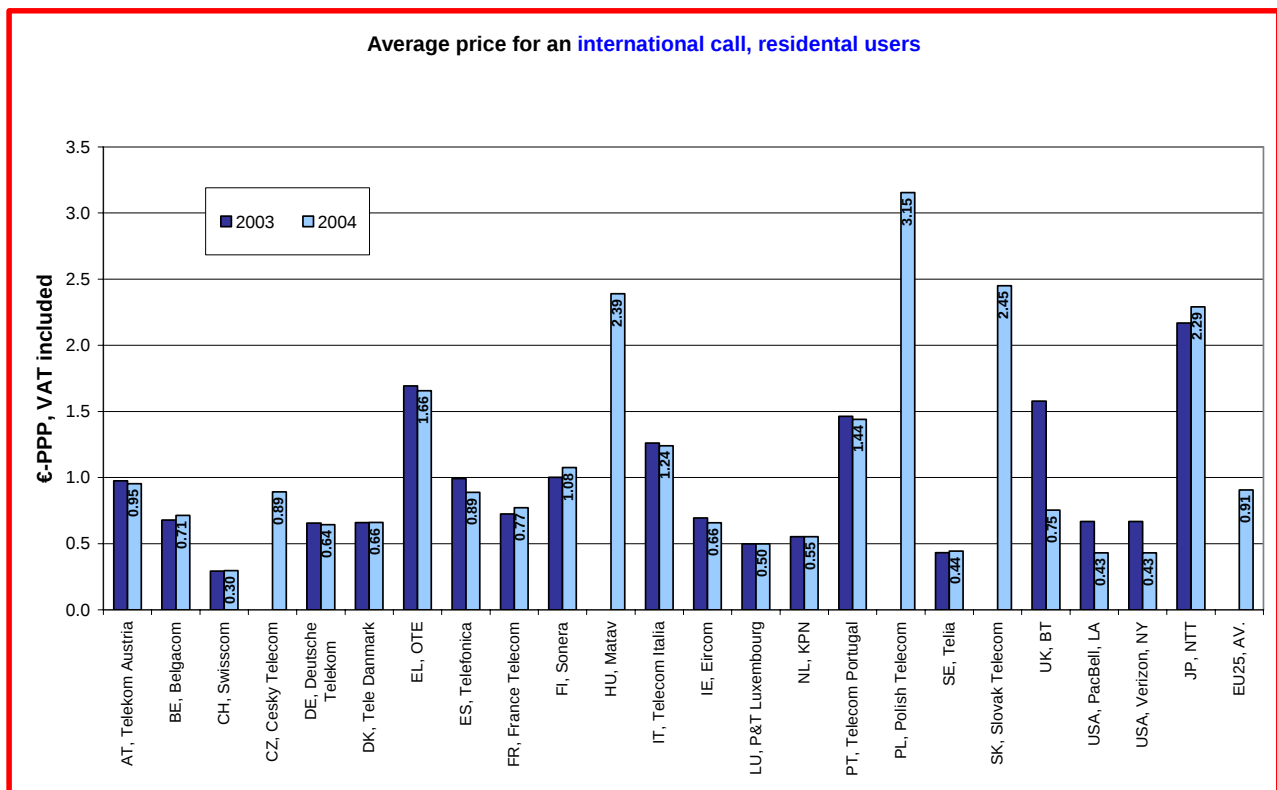
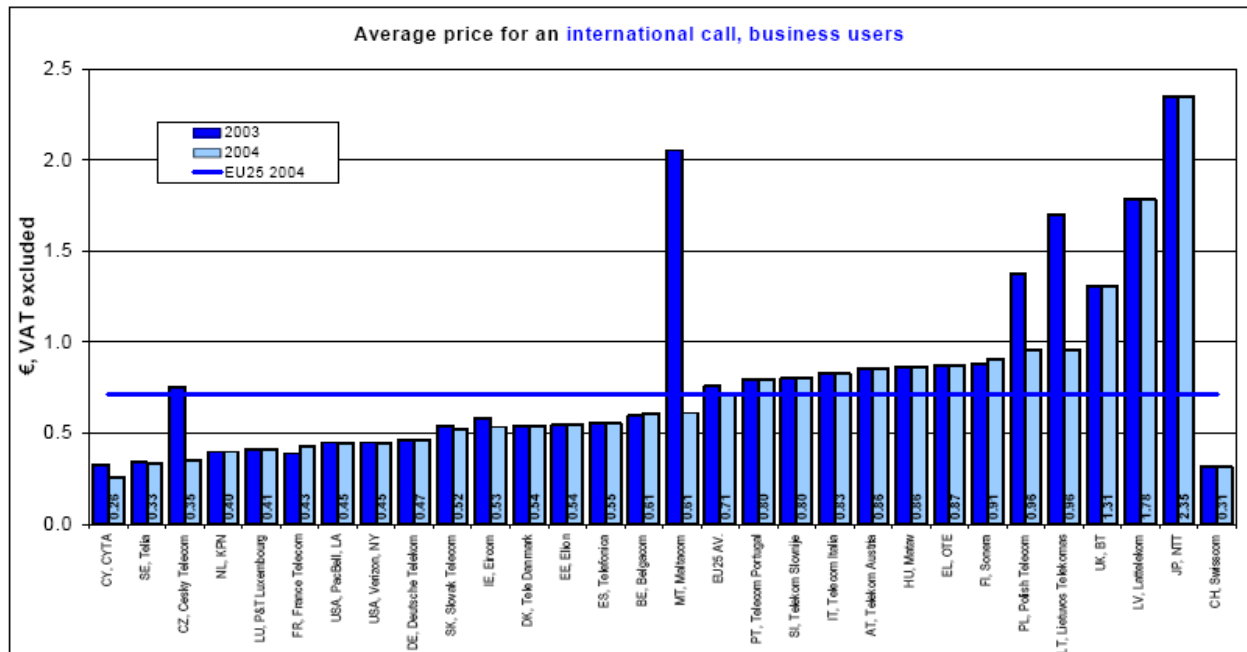


Figure 102



Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

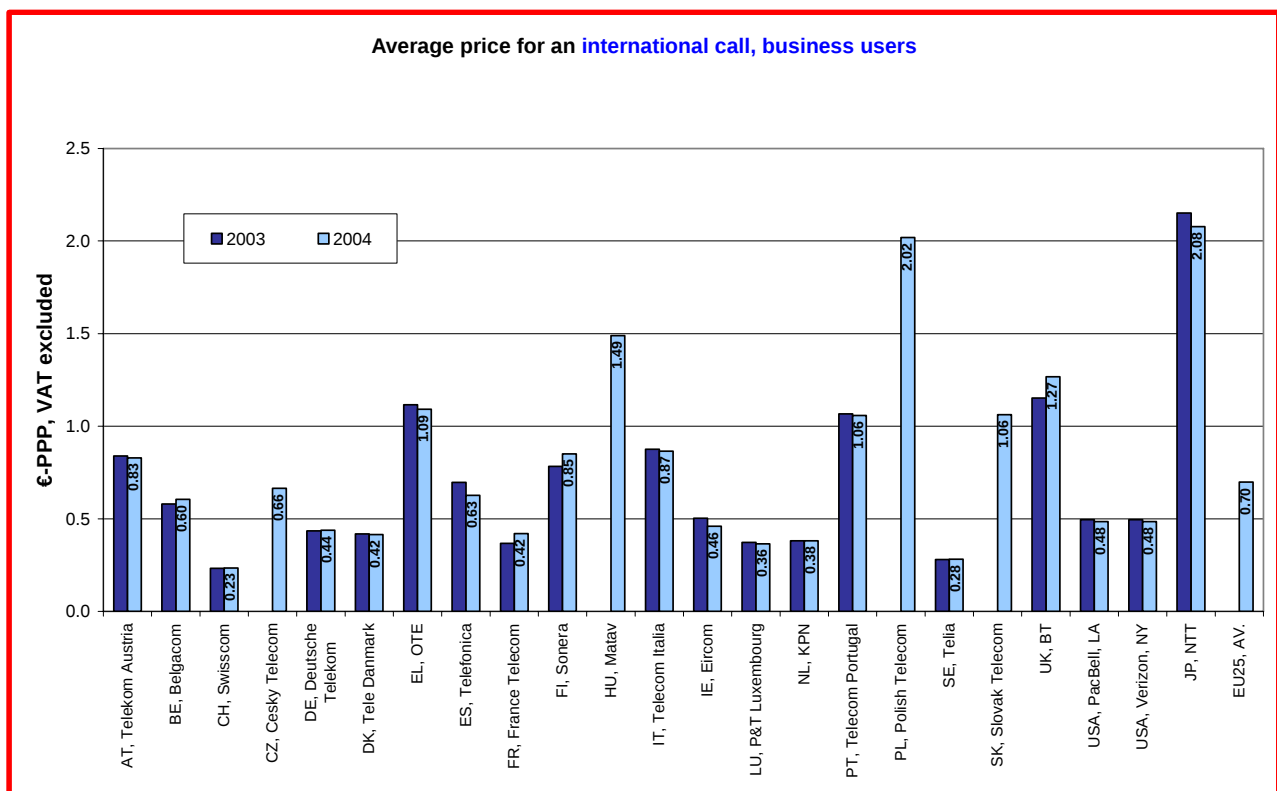
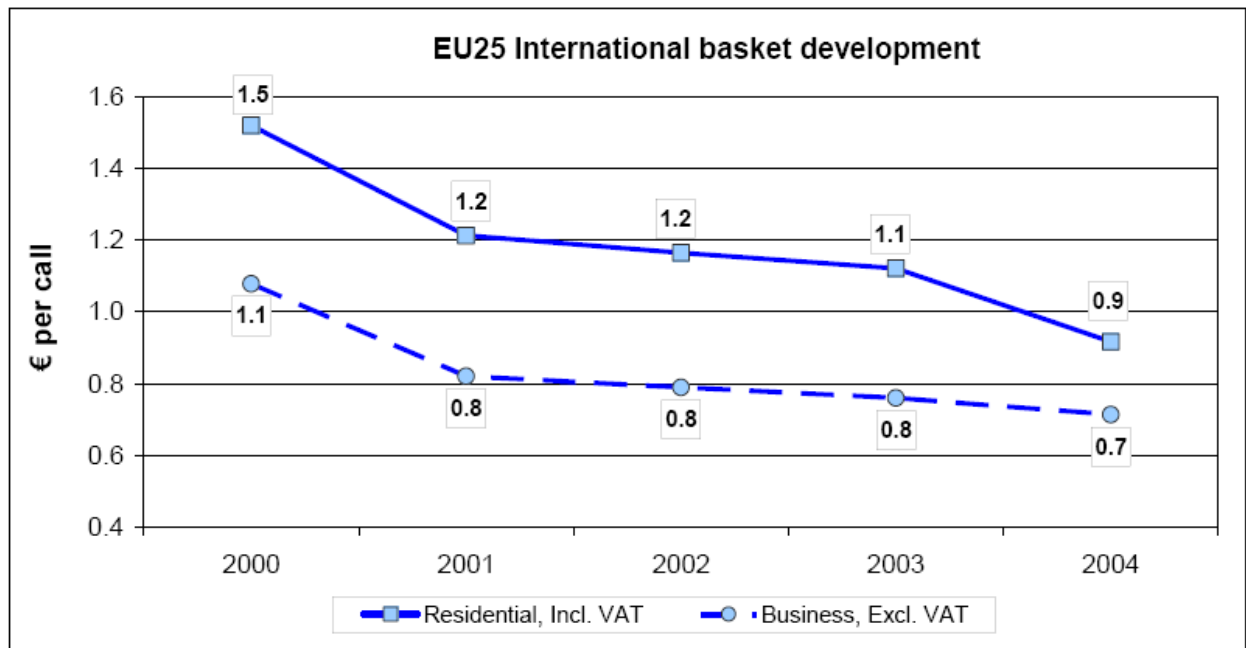


Figure 103



Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

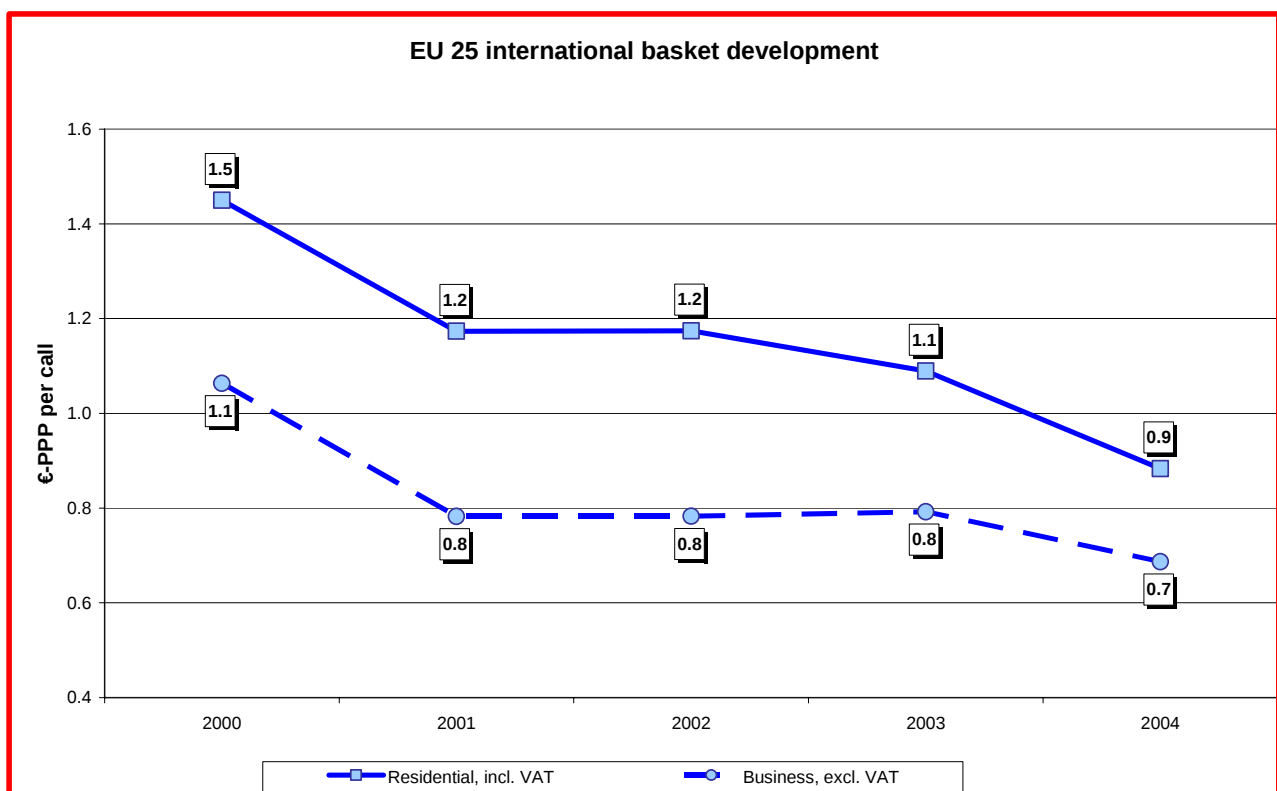
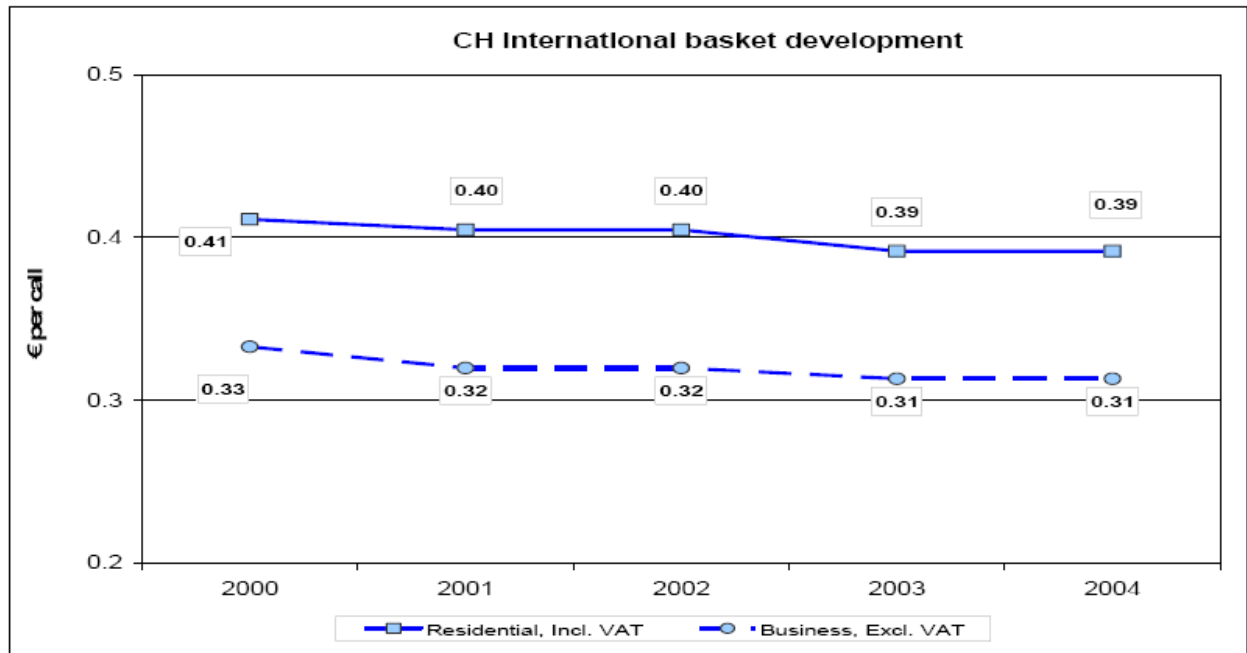


Figure 103a



Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

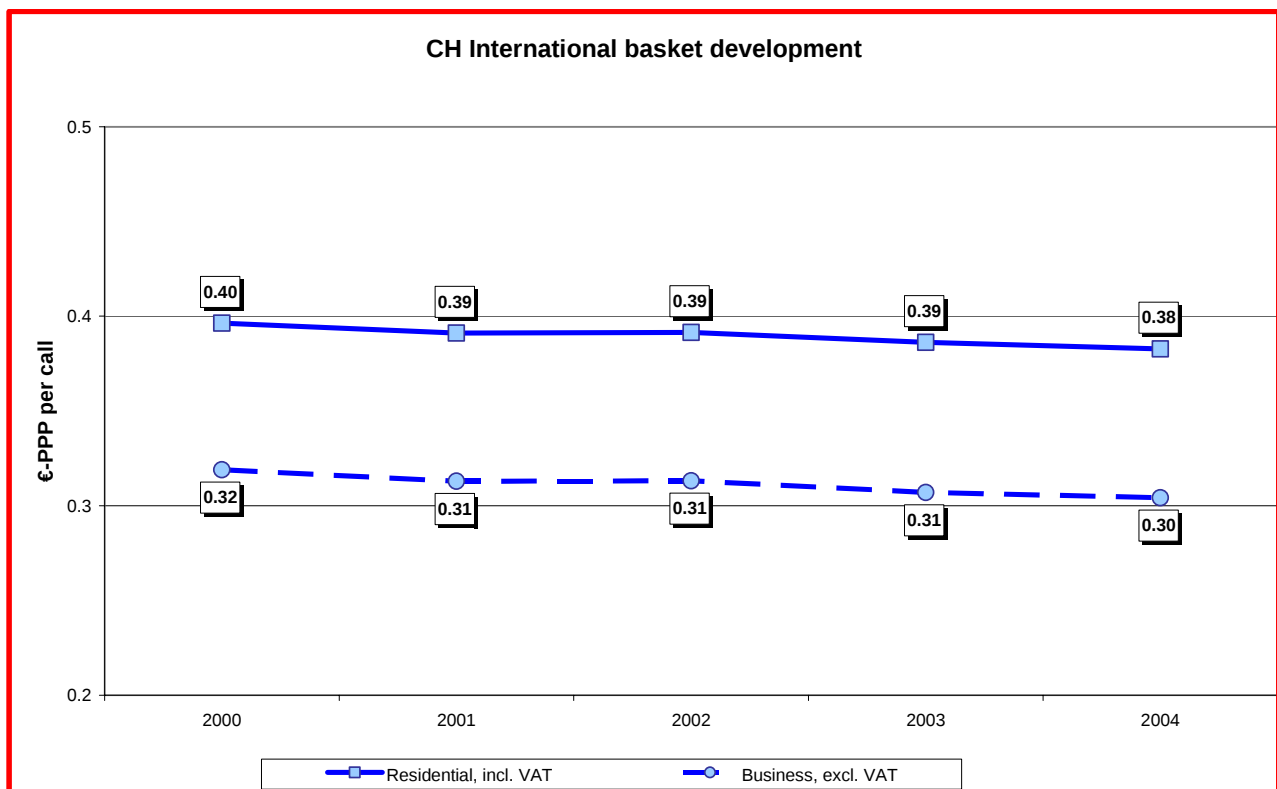
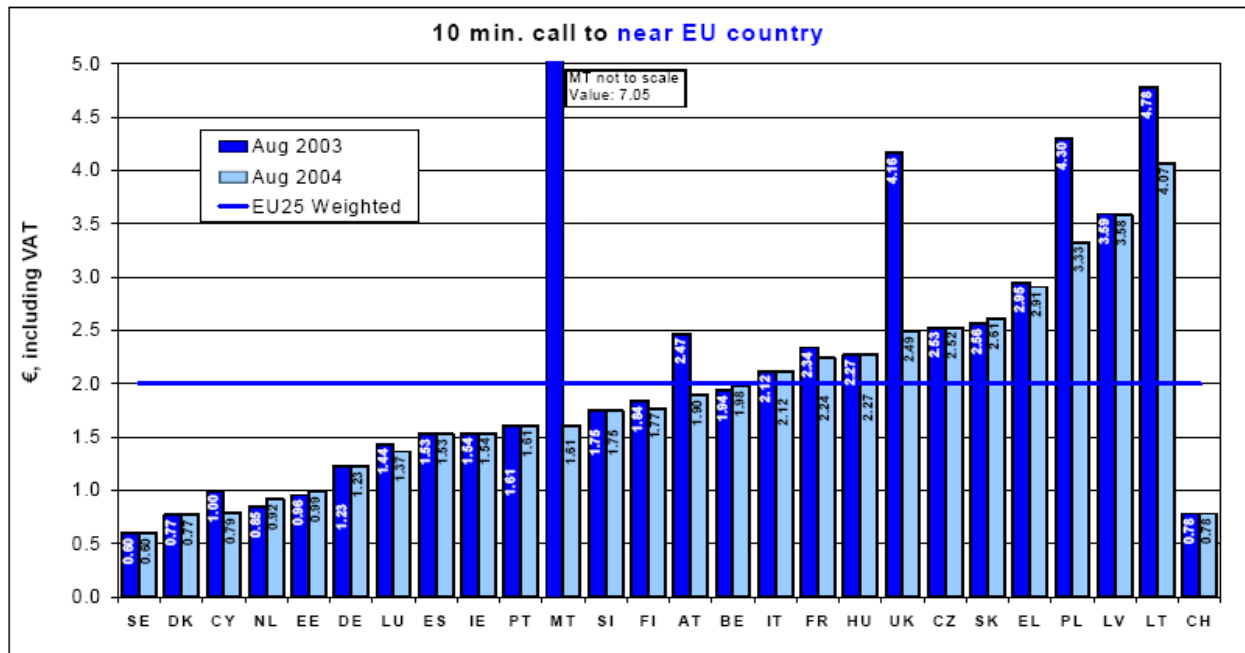


Figure 104



Source for Switzerland: OFCOM Switzerland.

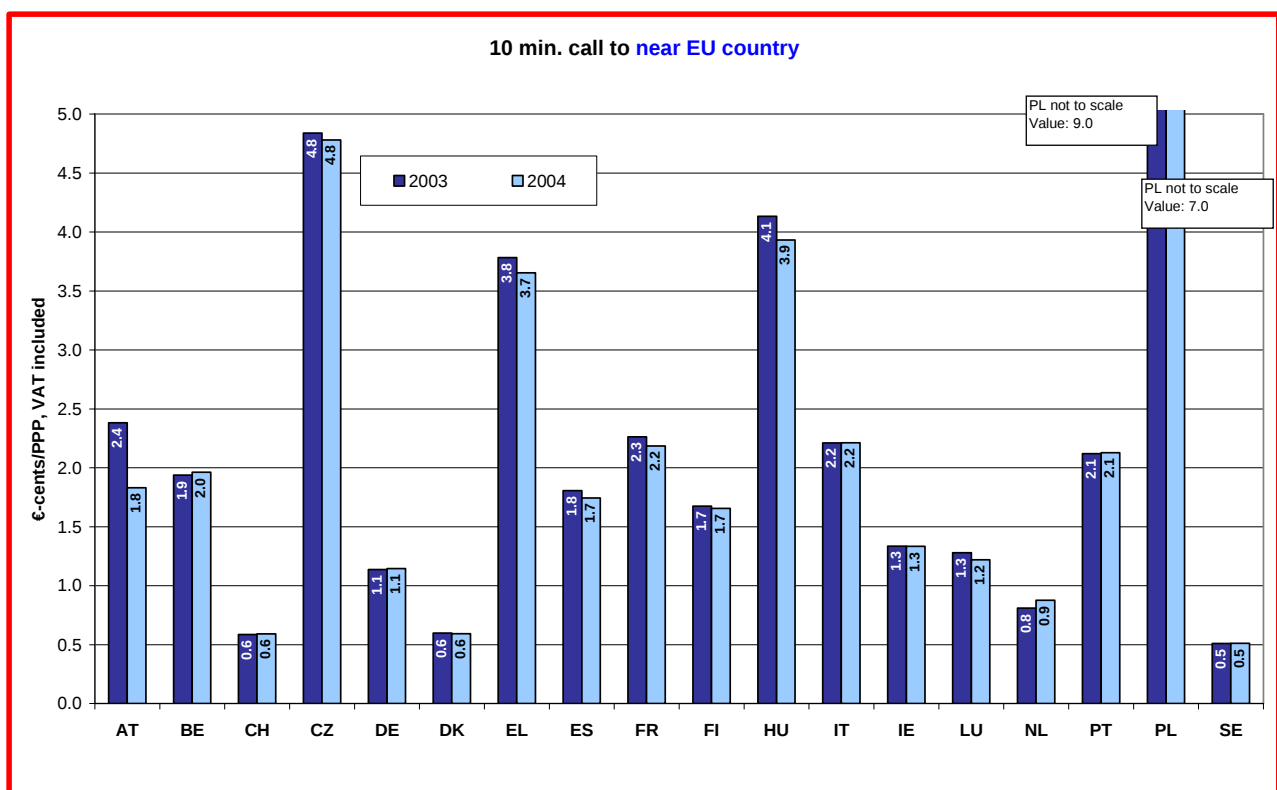
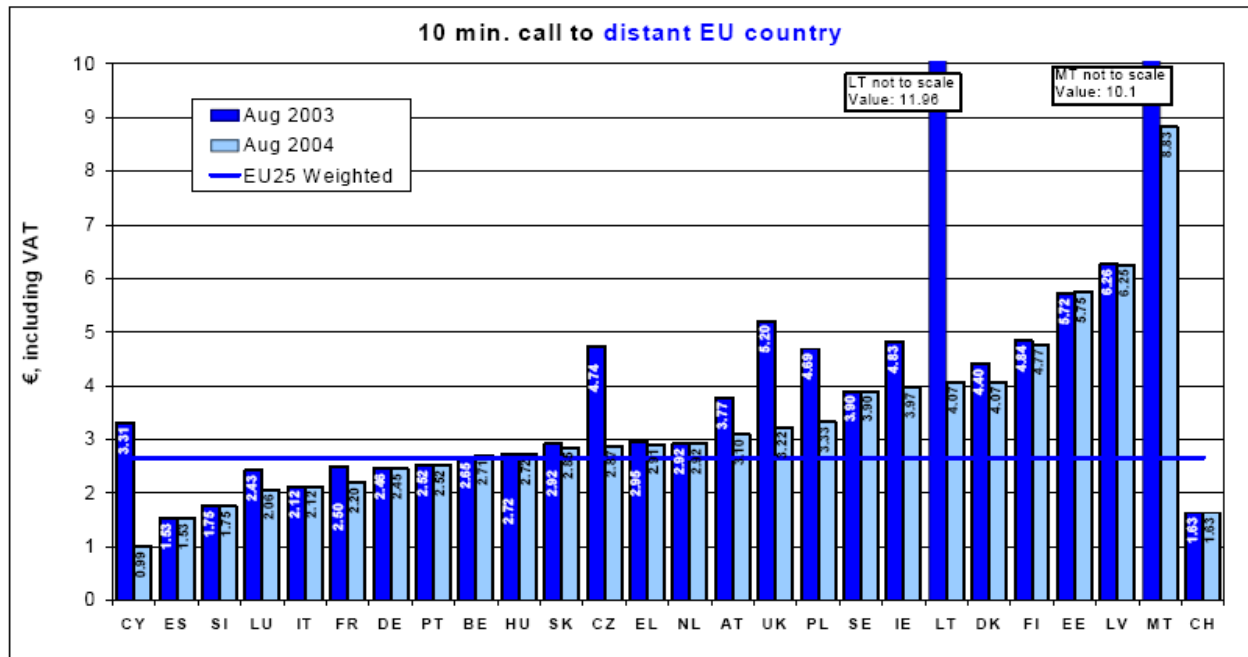


Figure 105



Source for Switzerland: OFCOM Switzerland.

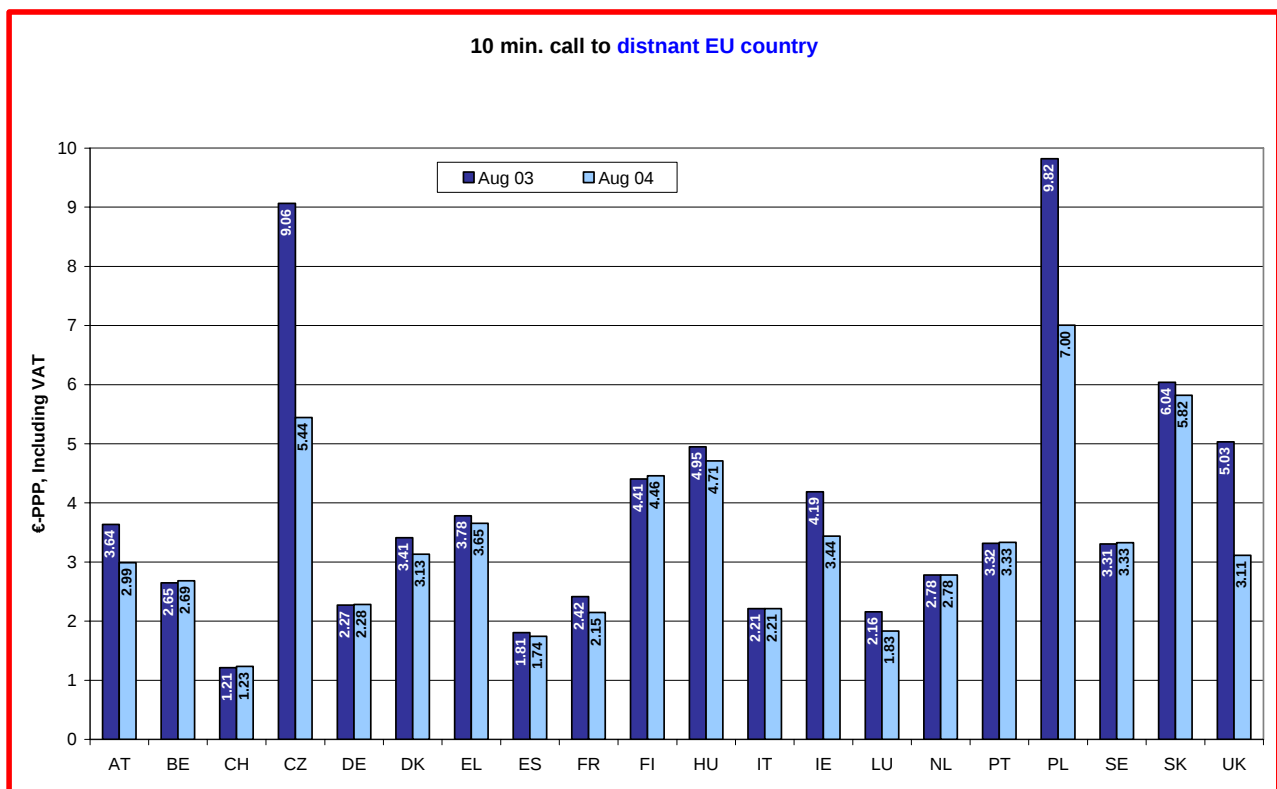
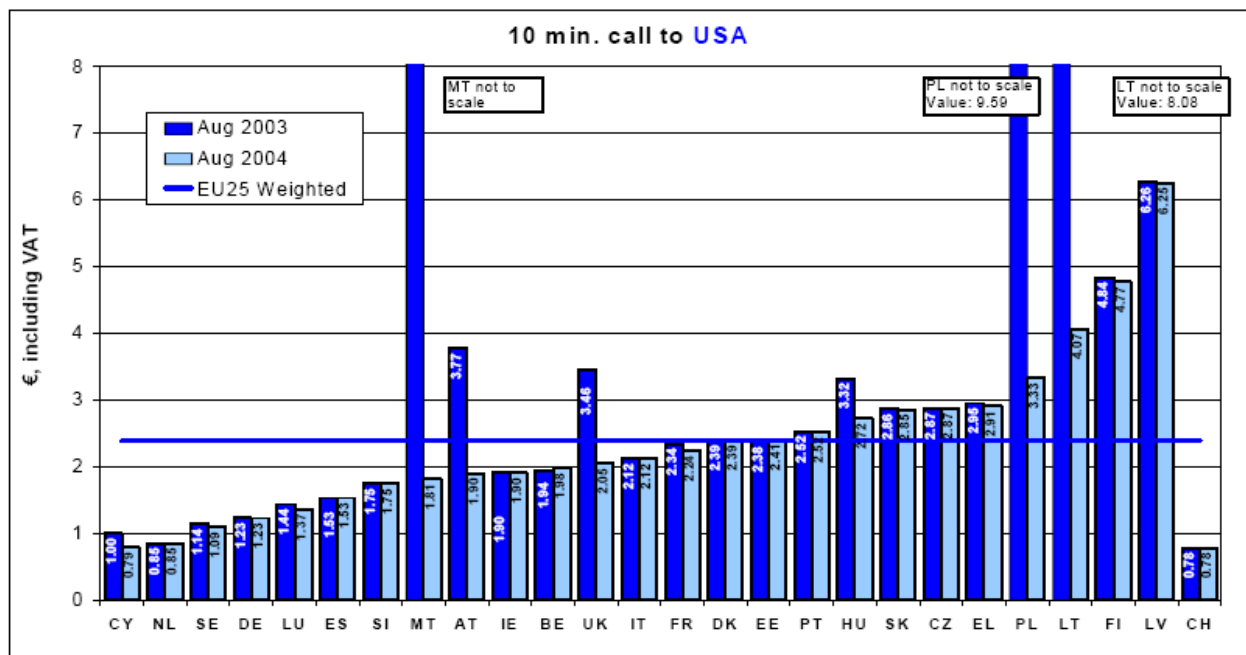


Figure 106



Source for Switzerland: OFCOM Switzerland.

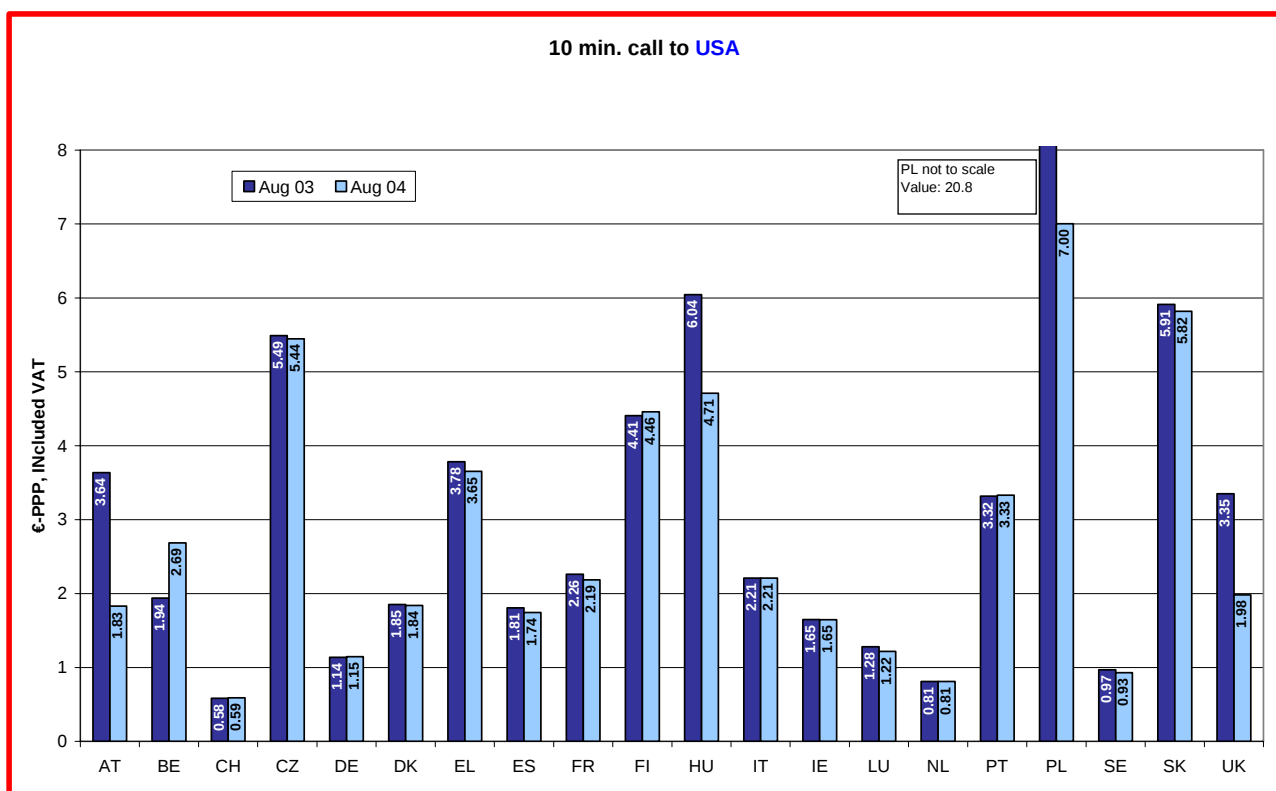
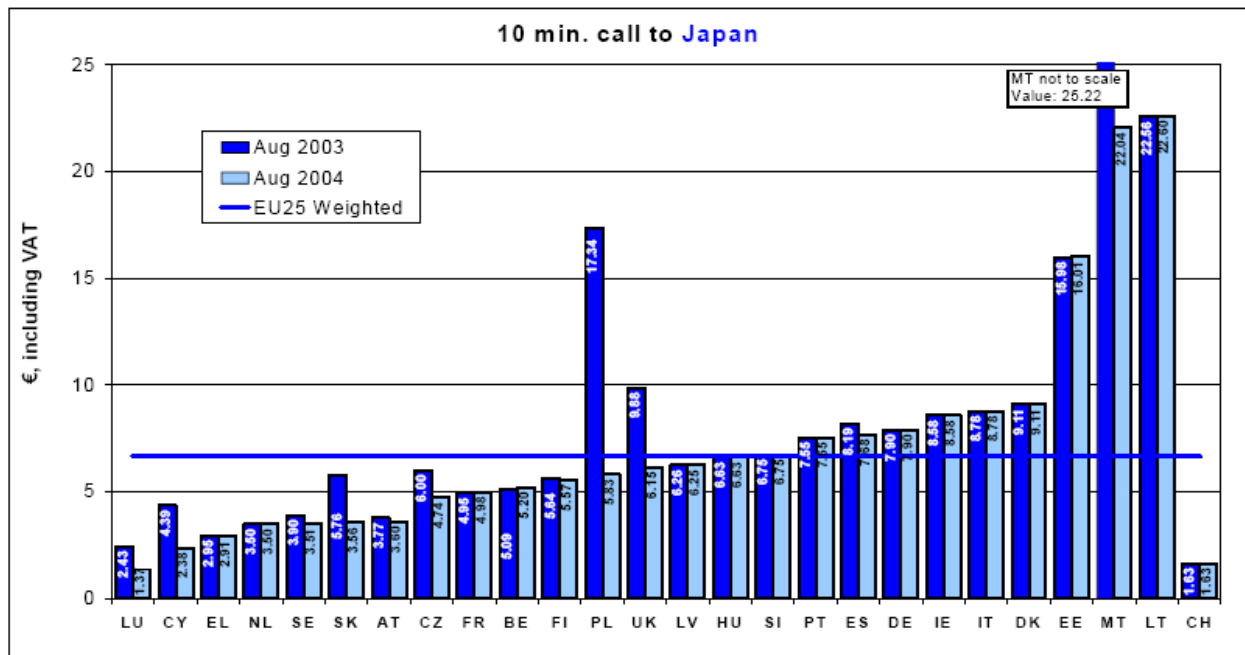


Figure 107



Source for Switzerland: OFCOM Switzerland.

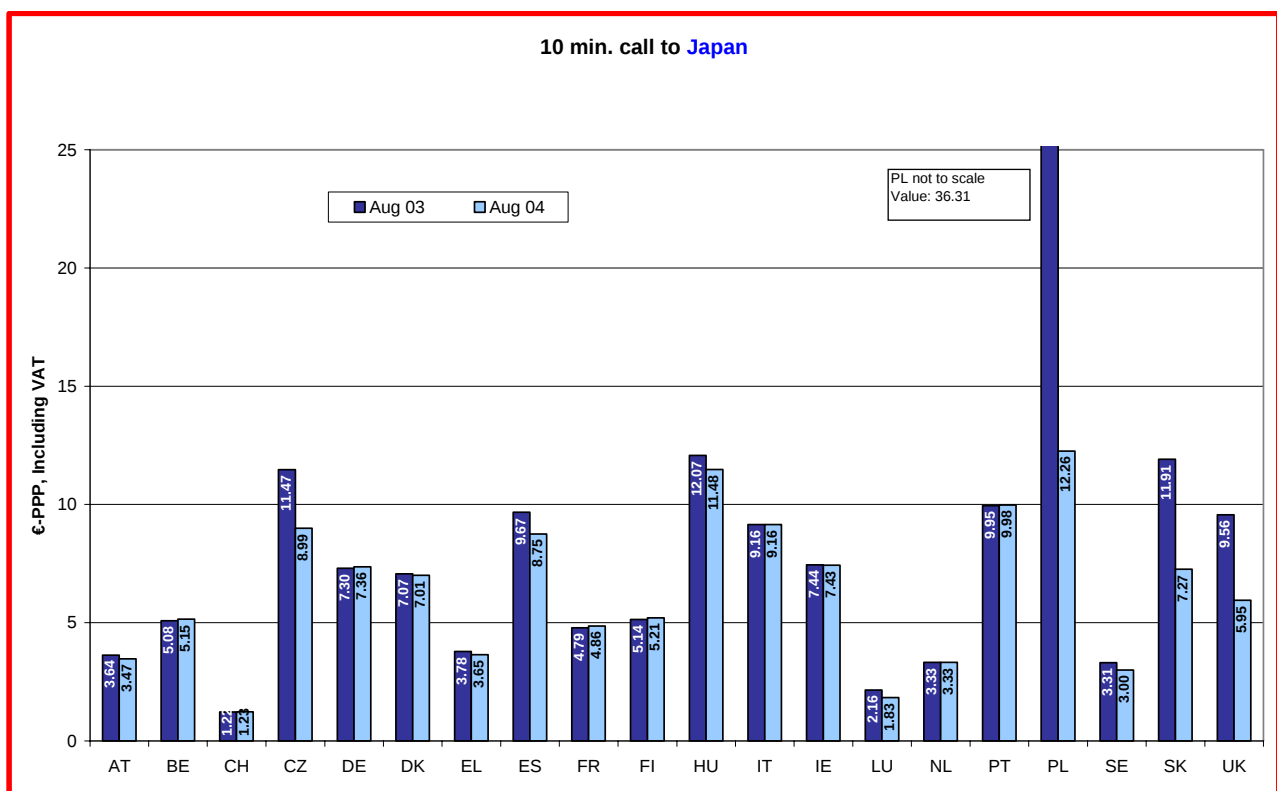
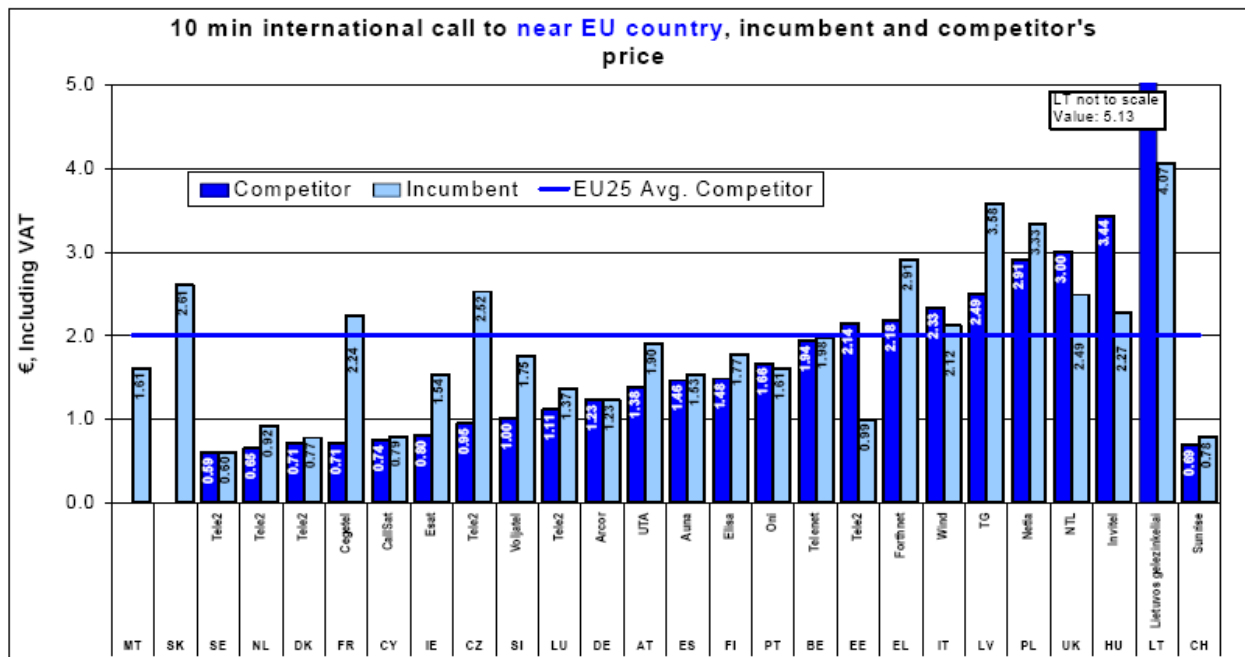


Figure 108



Source for Switzerland: OFCOM Switzerland.

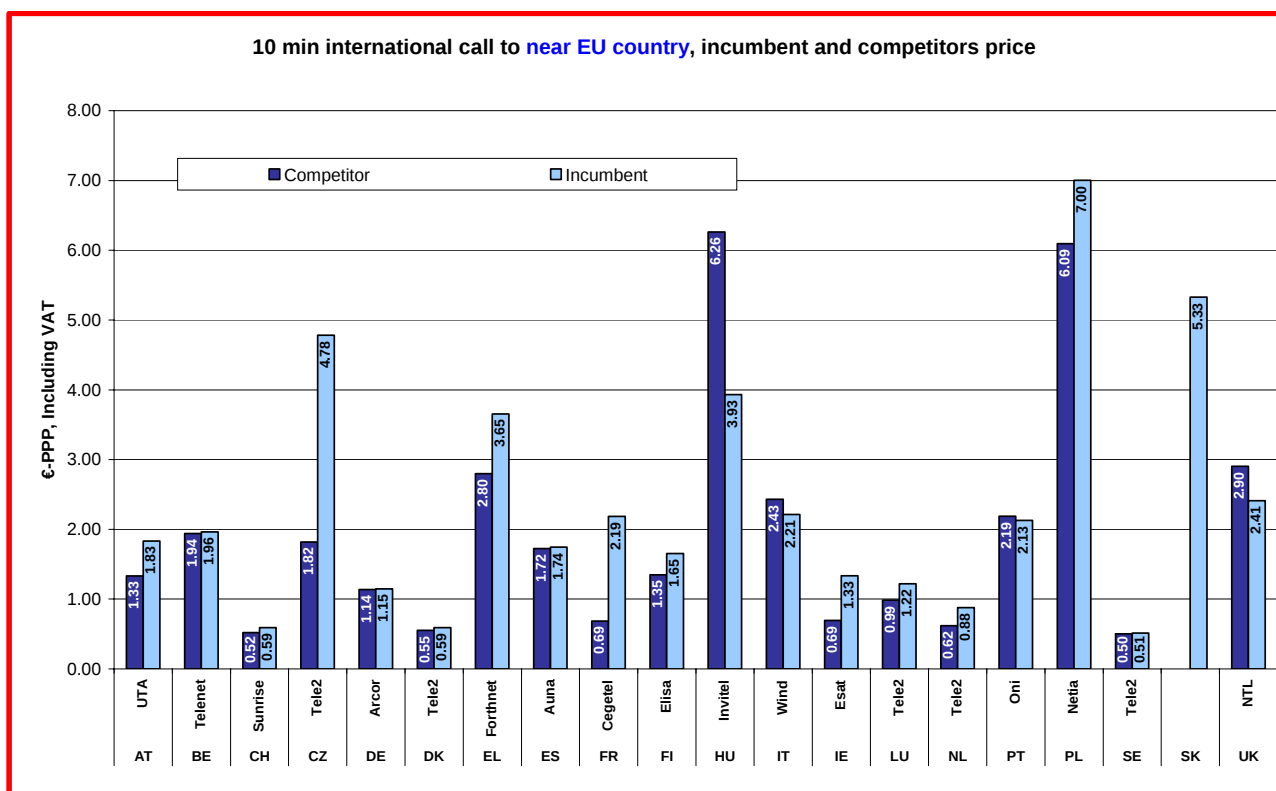
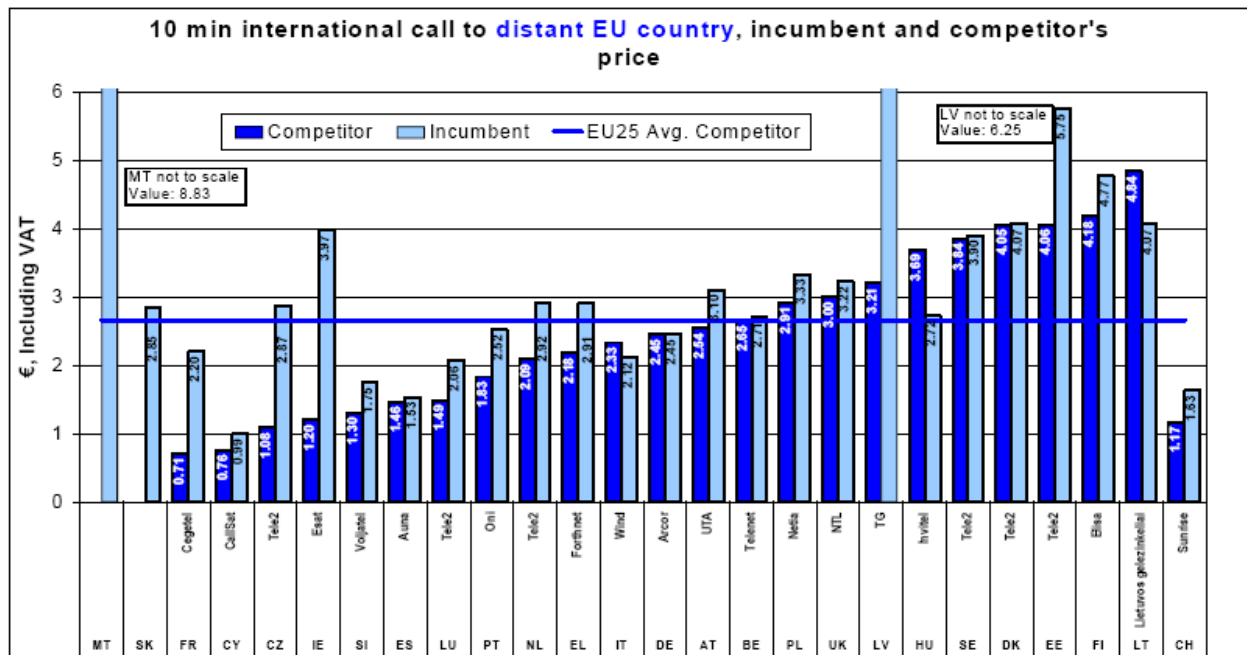


Figure 109



Source for Switzerland: OFCOM Switzerland.

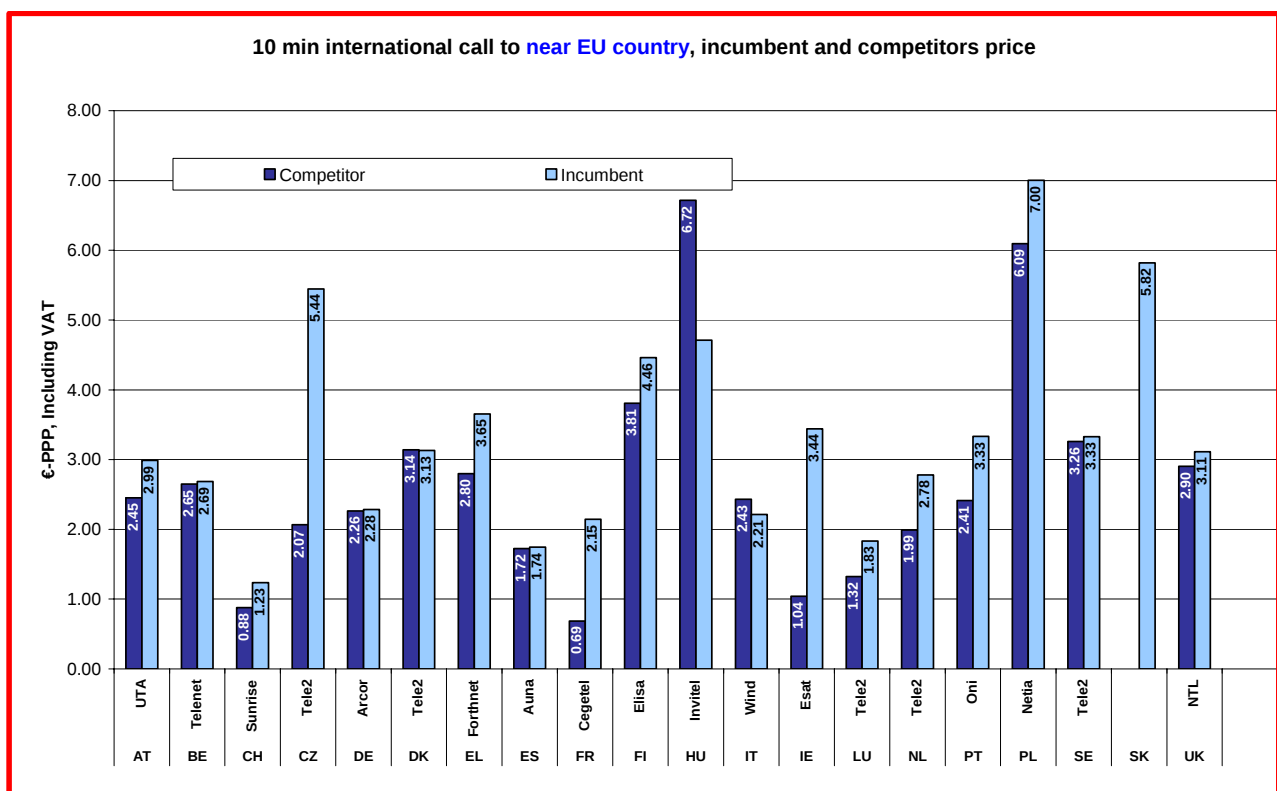
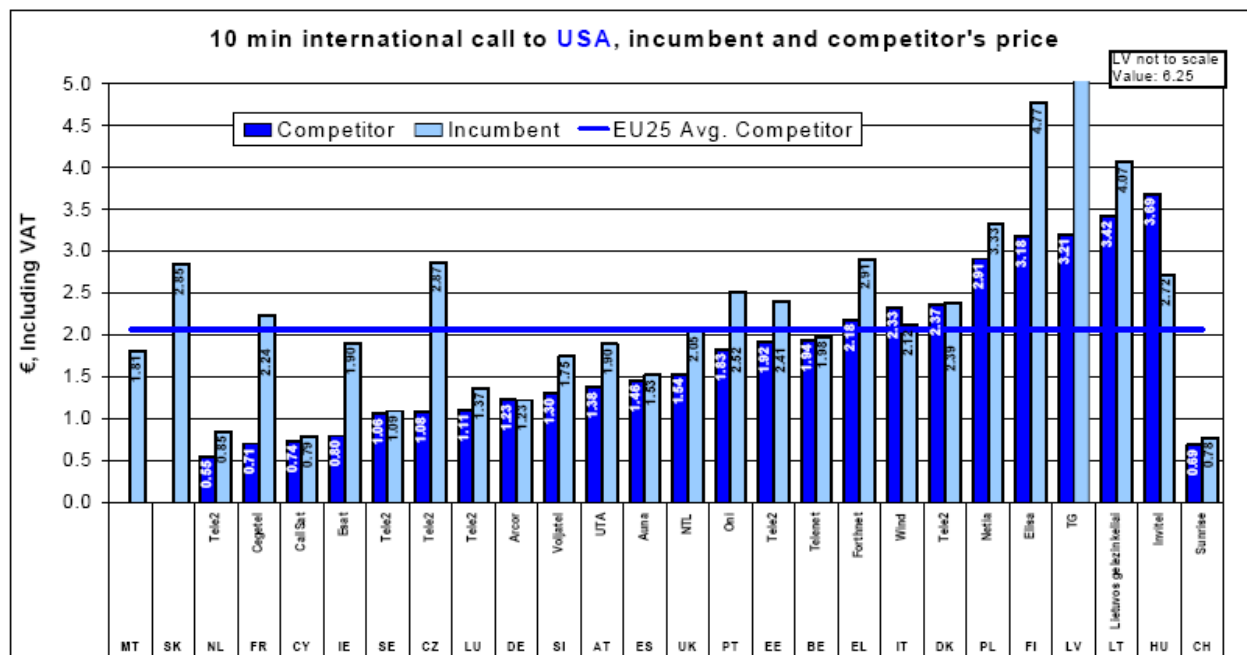


Figure 110



Source for Switzerland: OFCOM Switzerland.

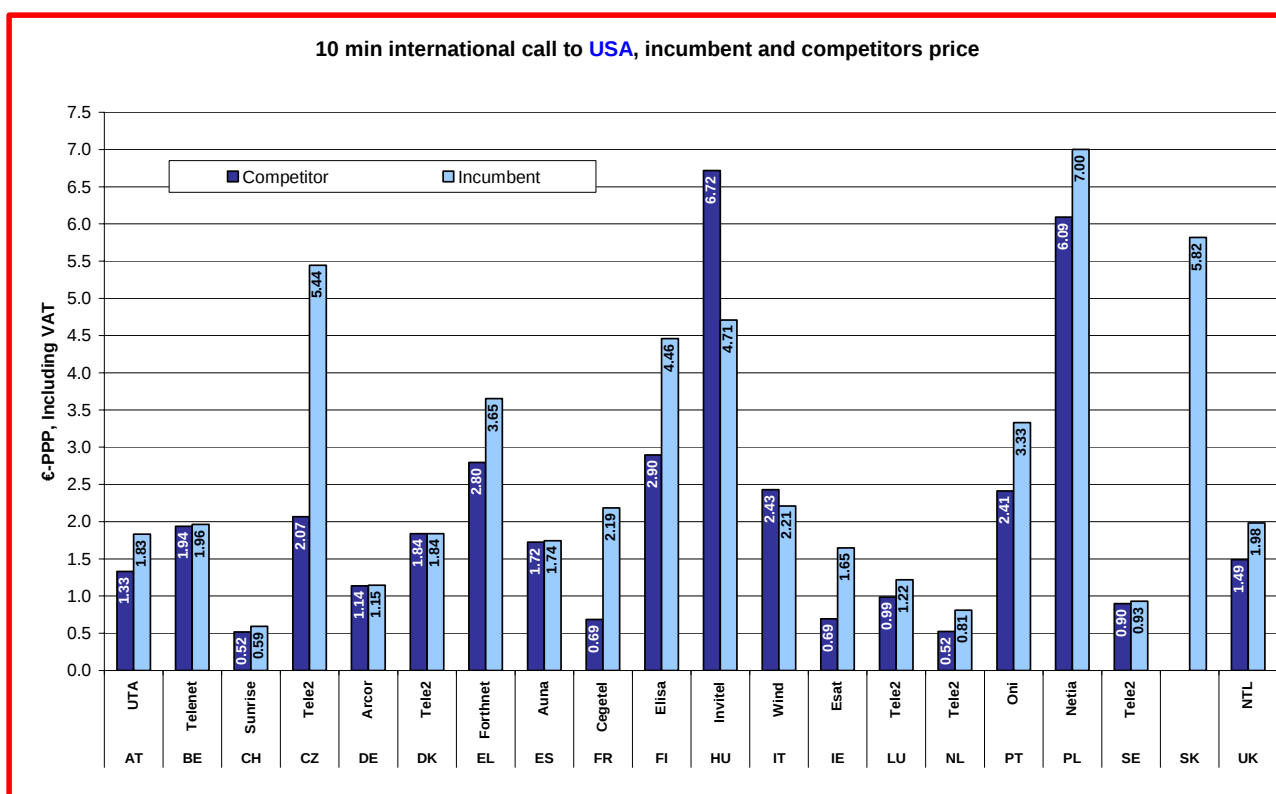
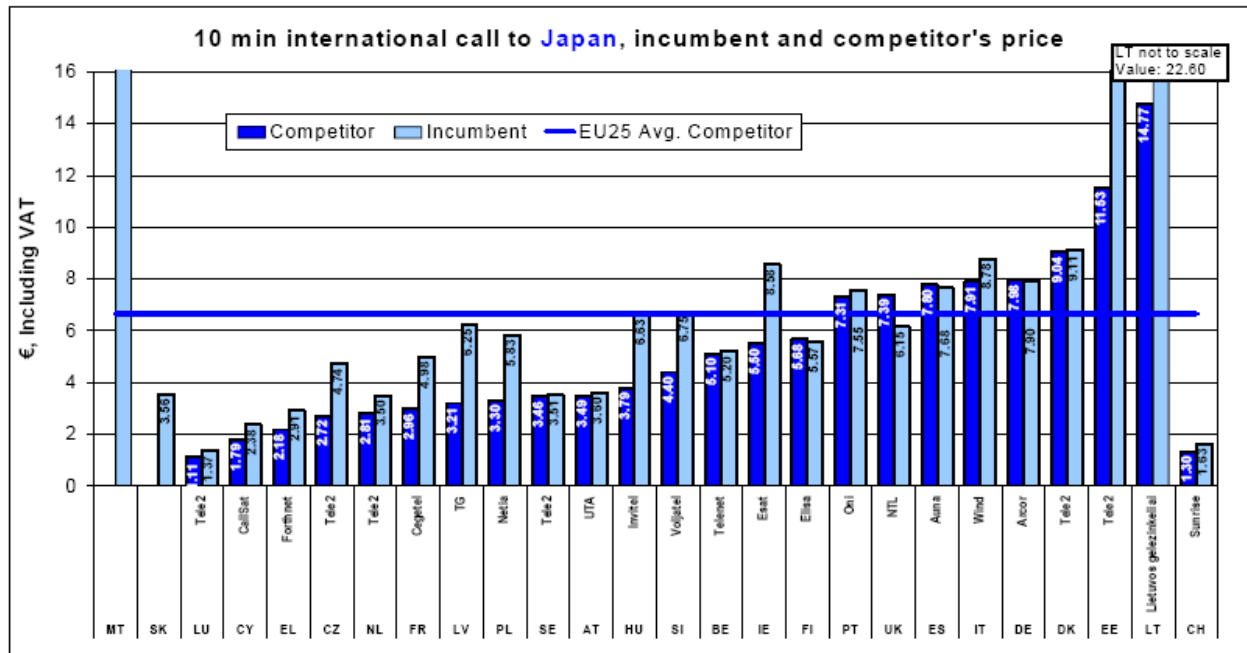


Figure 111



Source for Switzerland: OFCOM Switzerland.

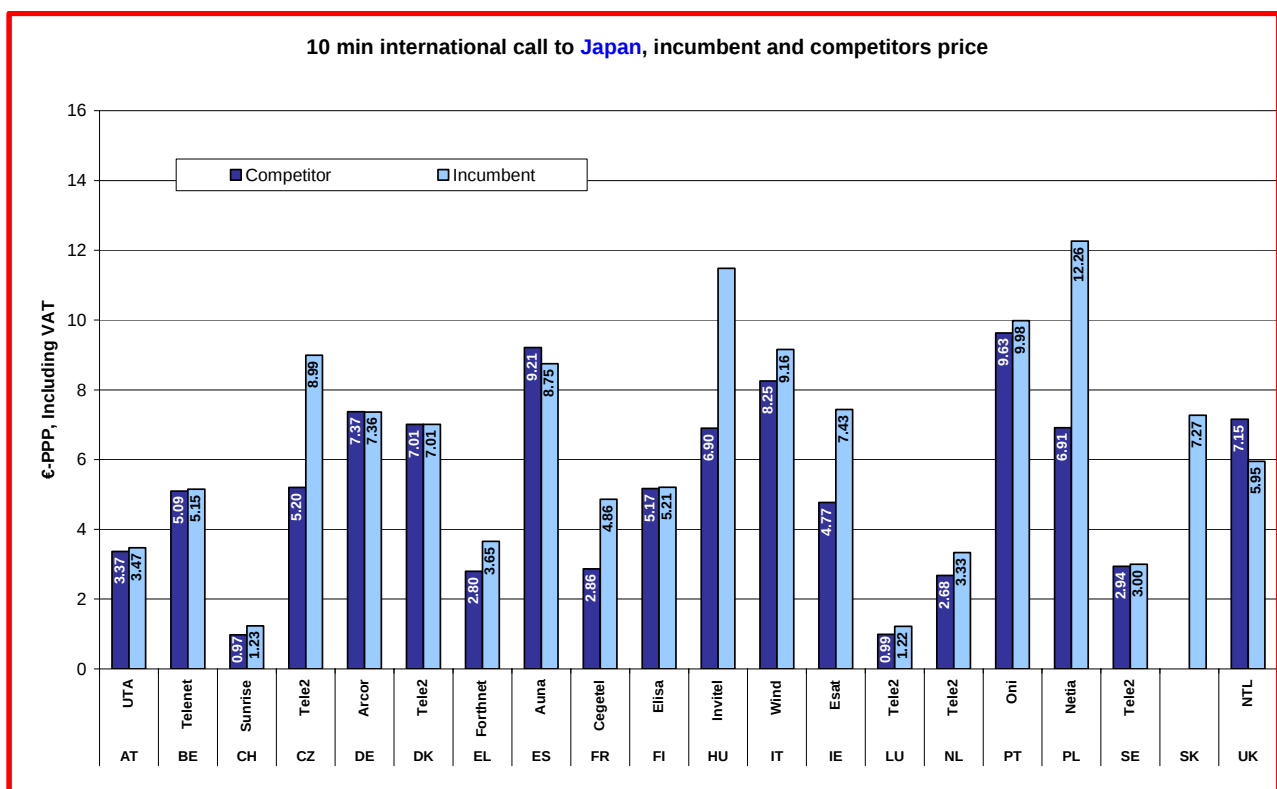
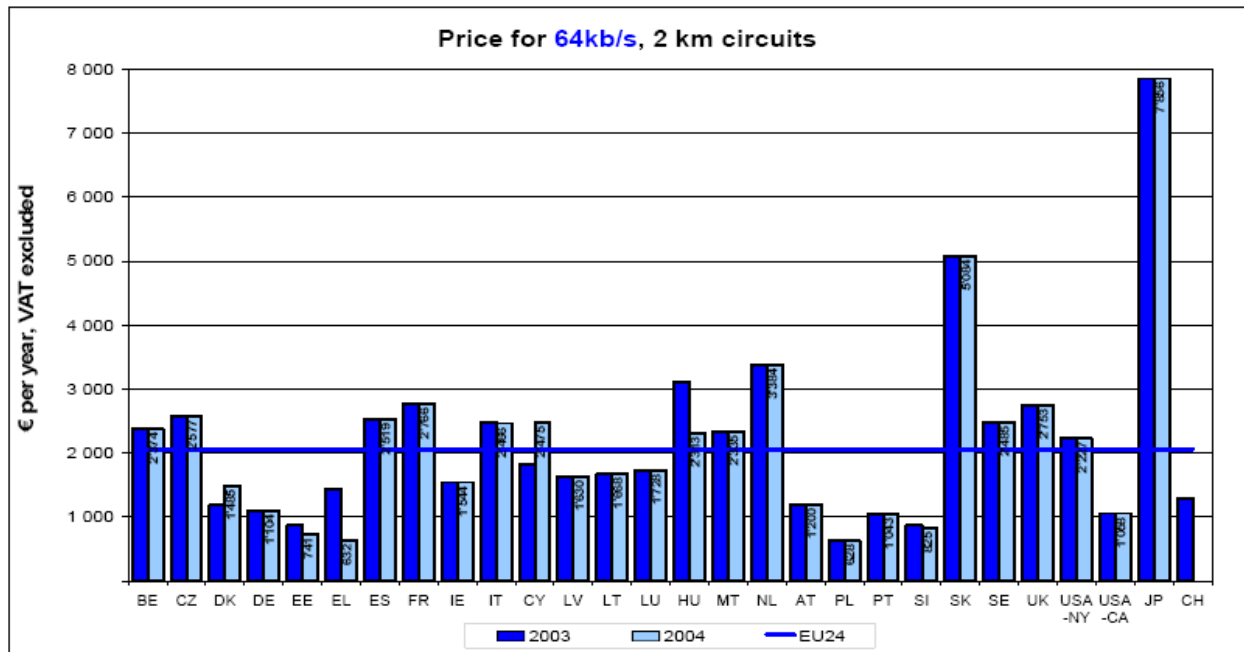


Figure 112



2004 data for Finland not available.

Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

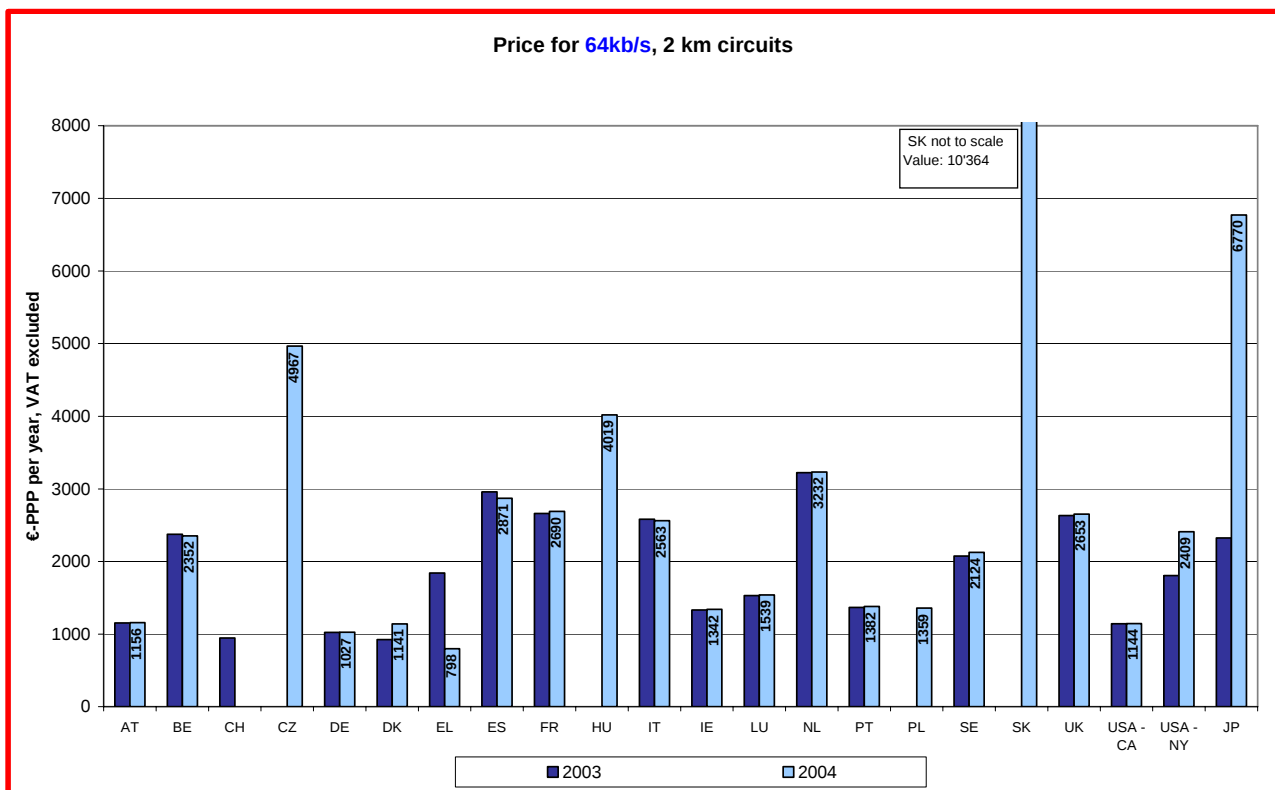
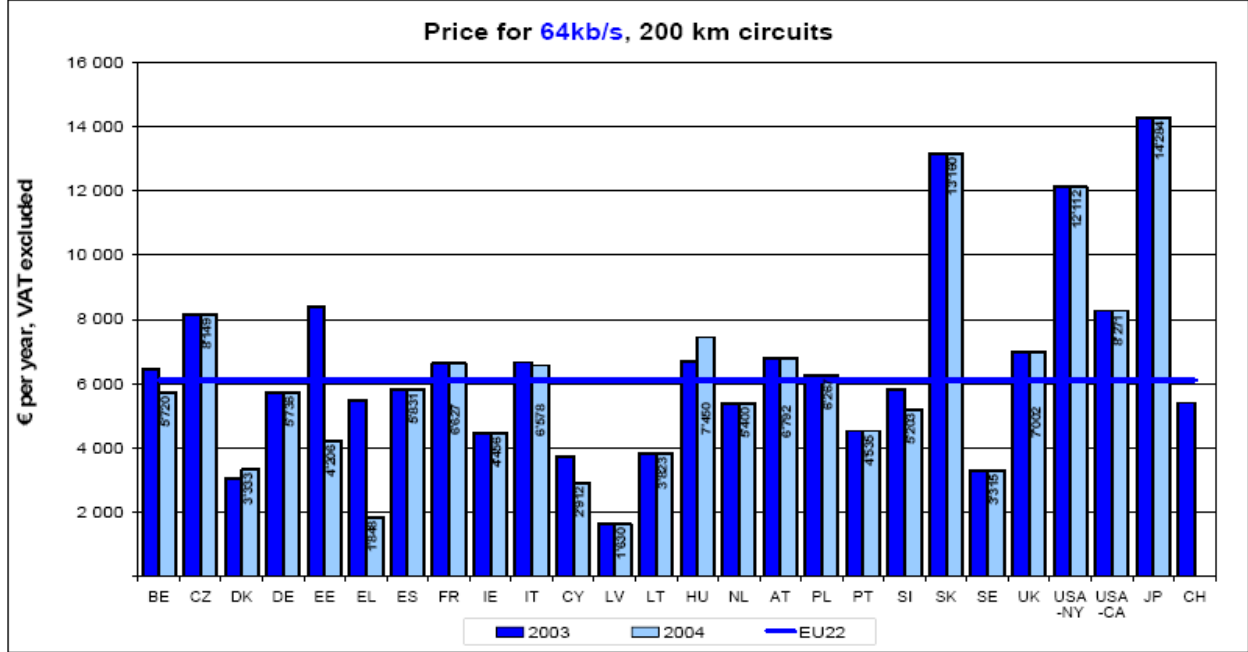


Figure 113



2004 data for Finland not available.

Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

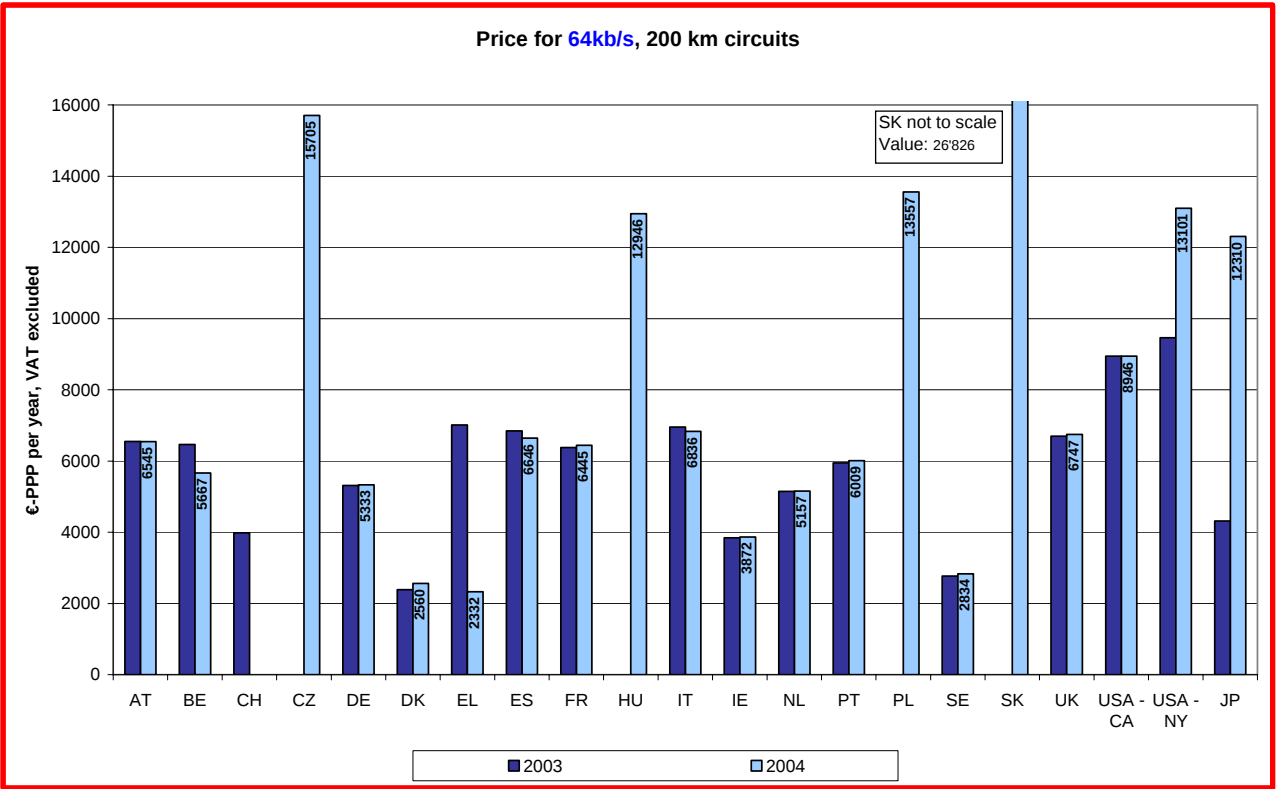
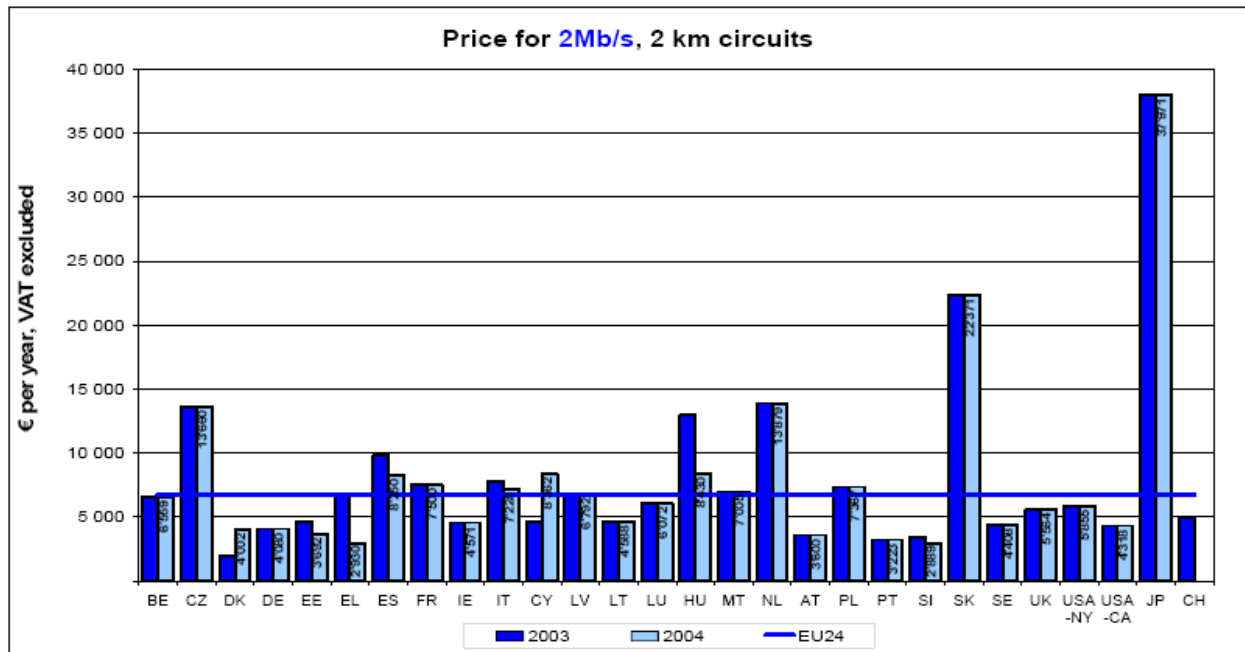


Figure 114



2004 data for Finland not available.

Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

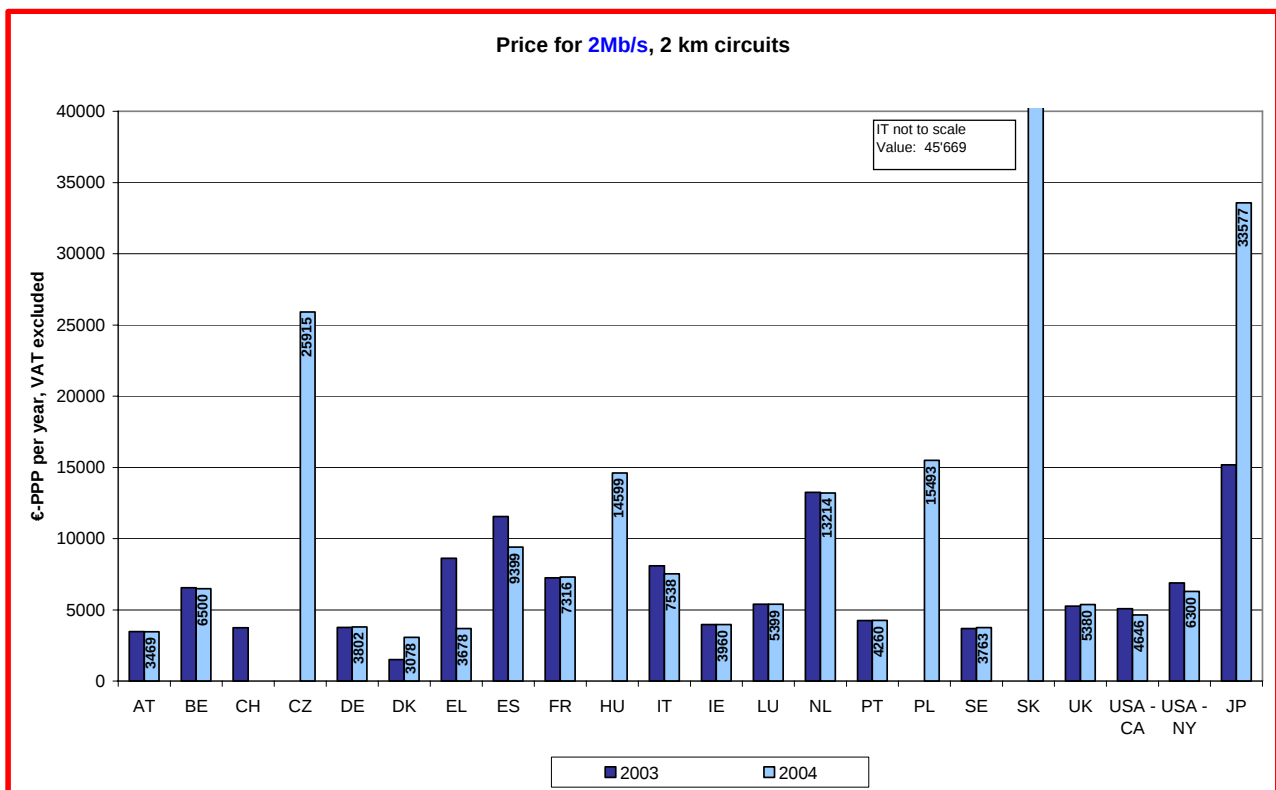
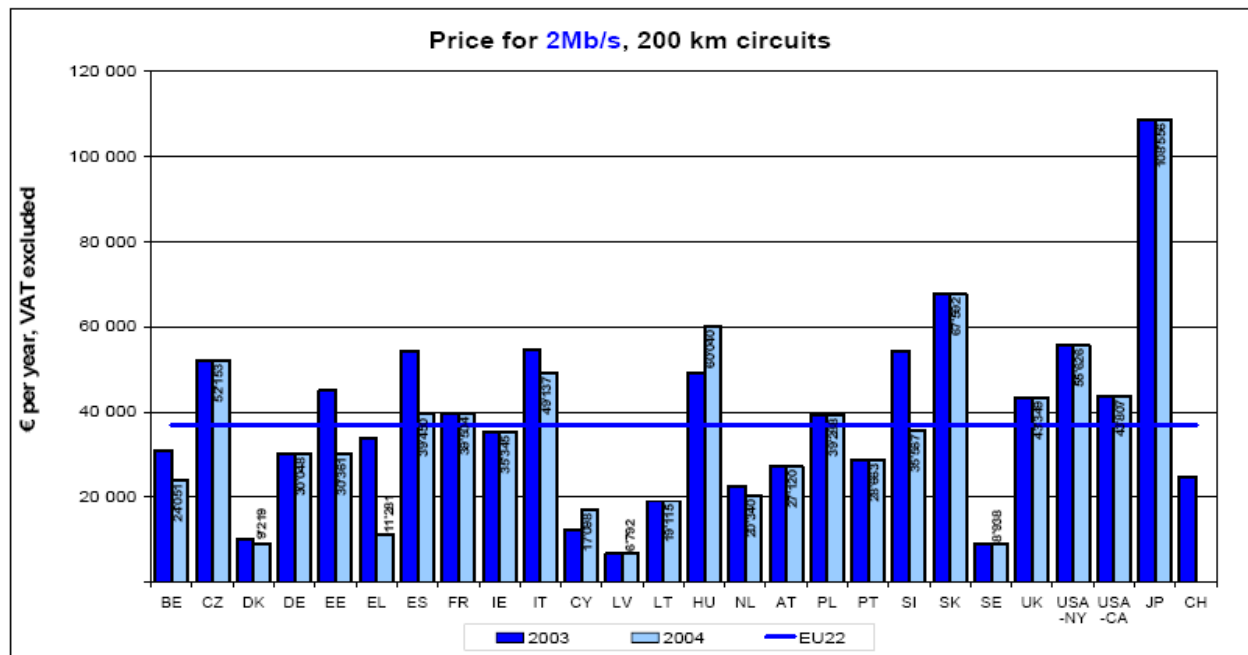


Figure 115



Source for Switzerland: Teligen T-Basket; OFCOM Switzerland computation.

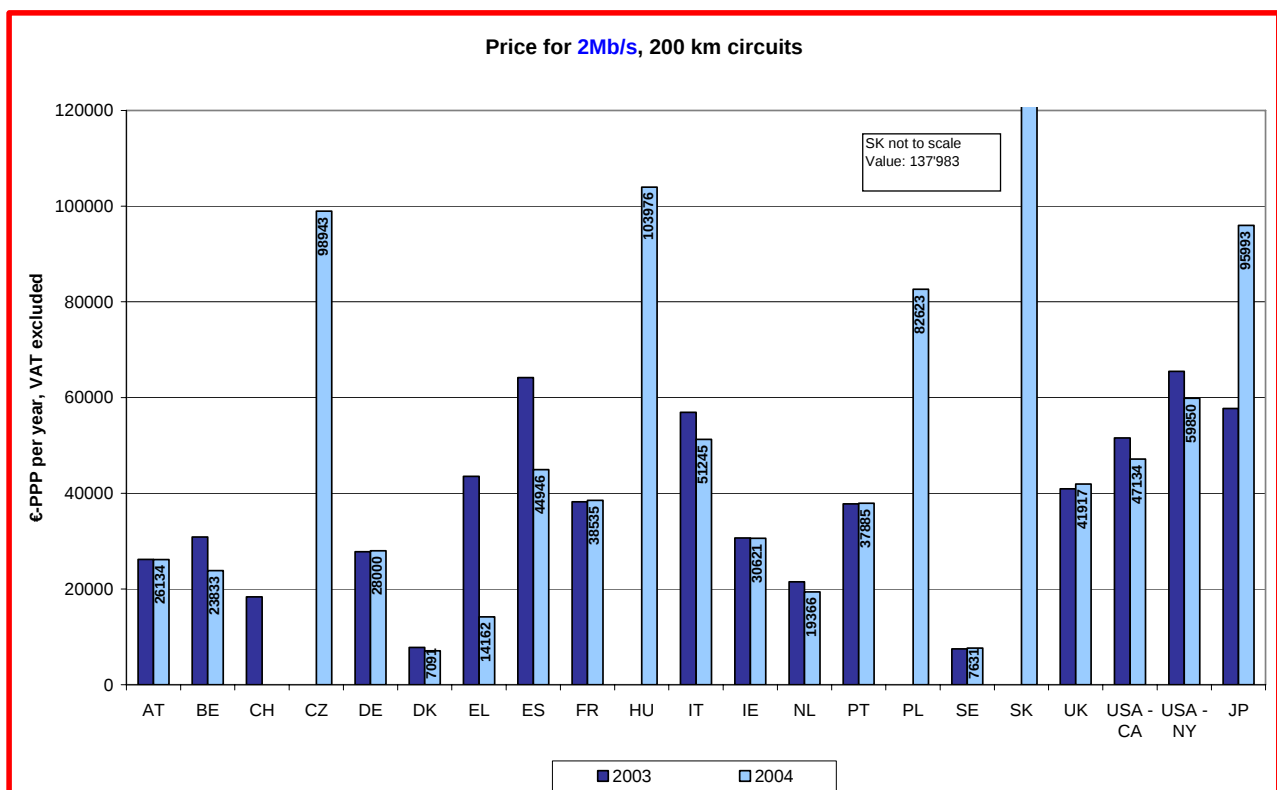
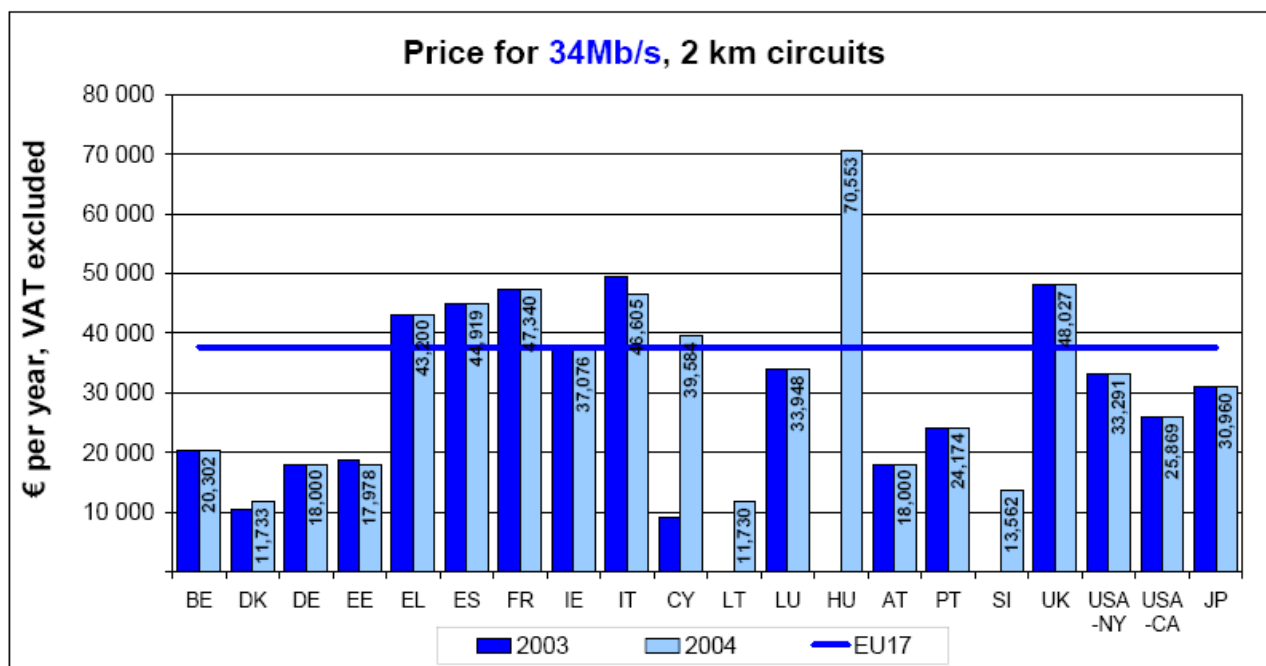


Figure 116



- 2004 data for Czech Republic, Latvia, Malta, the Netherlands, Poland, Slovakia, Finland and Sweden not available.

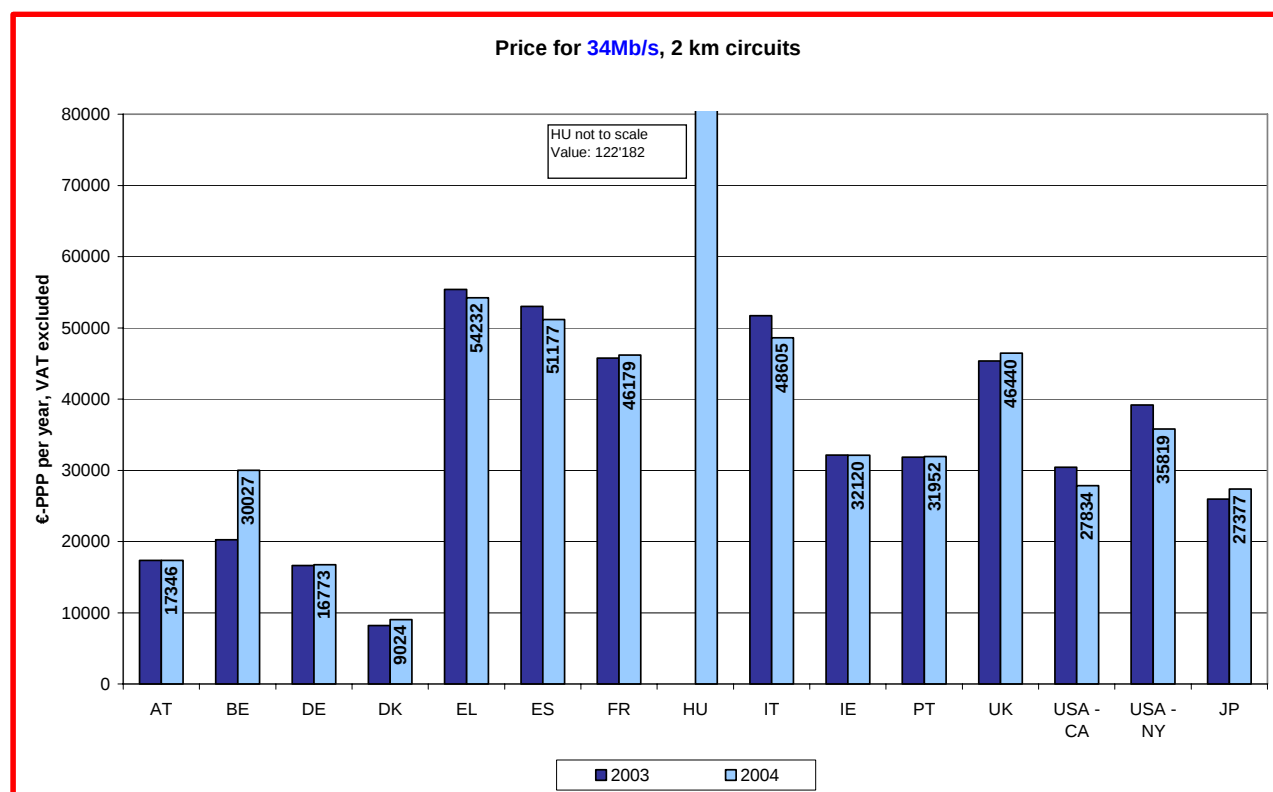
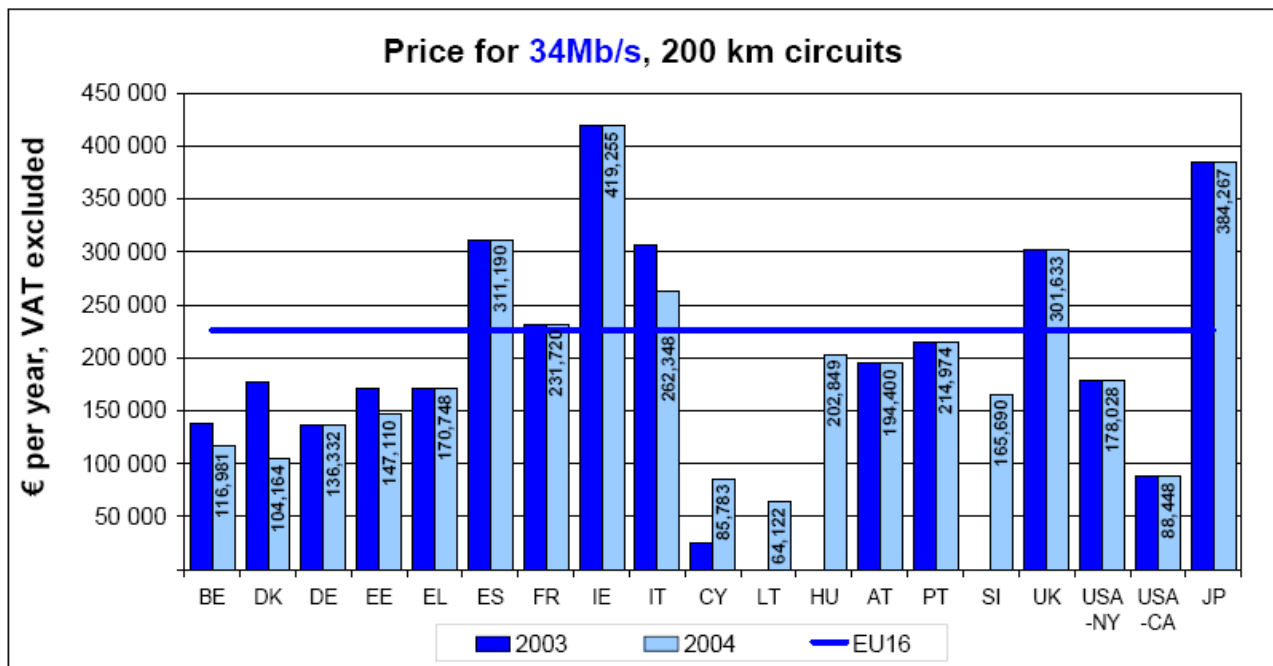


Figure 117



- 2004 data for Czech Republic, Latvia, the Netherlands, Poland, Slovakia, Finland and Sweden not available.

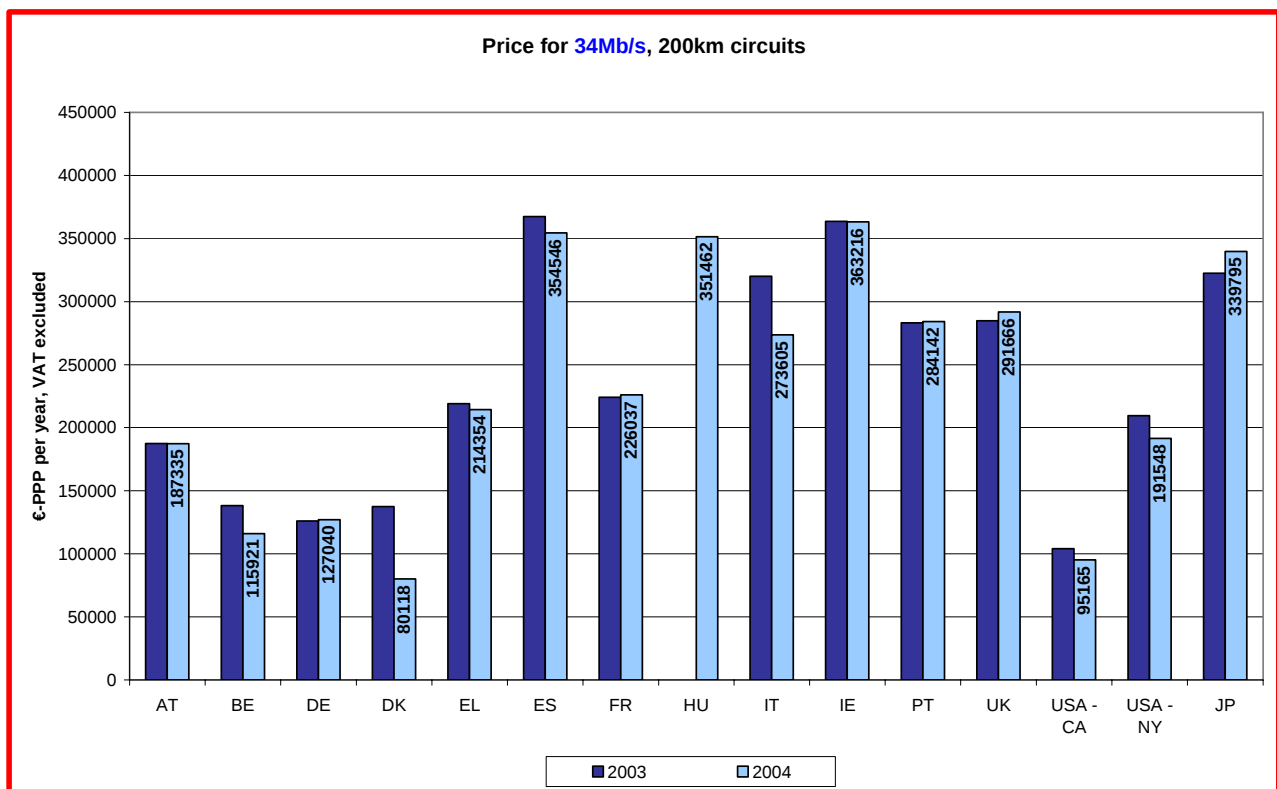
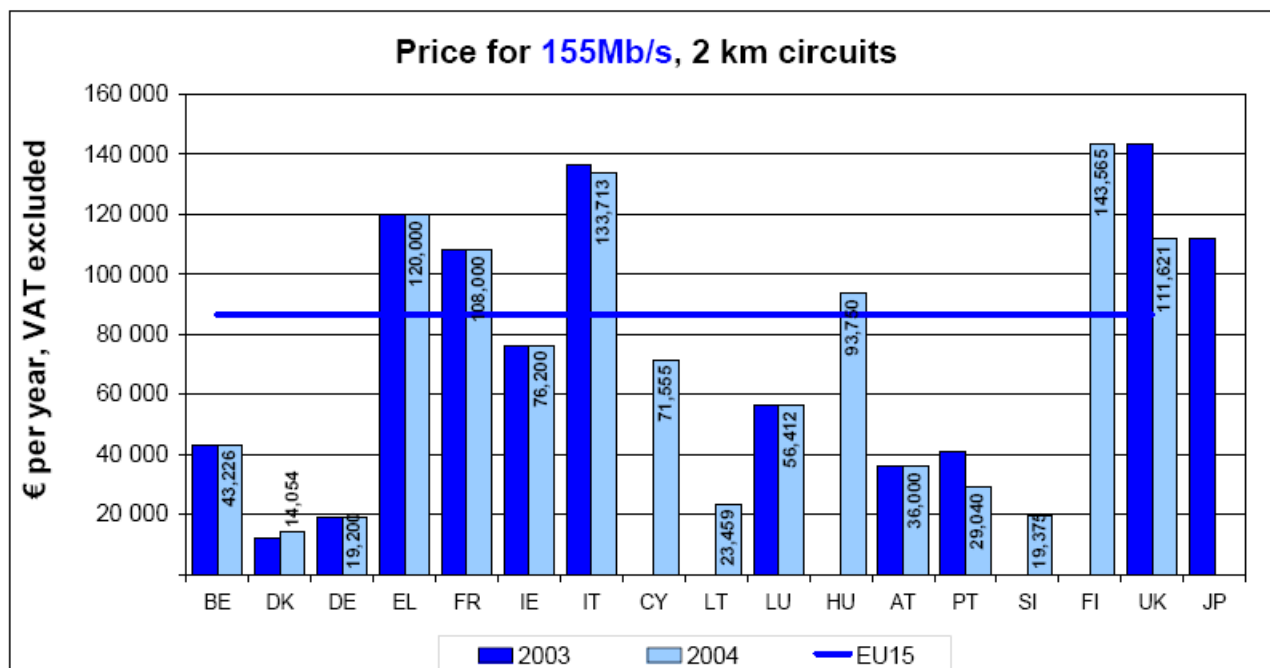


Figure 118



- 2004 data for Czech Republic, Estonia, Spain, Latvia, Malta, the Netherlands, Poland, Slovakia, Finland and Sweden not available.

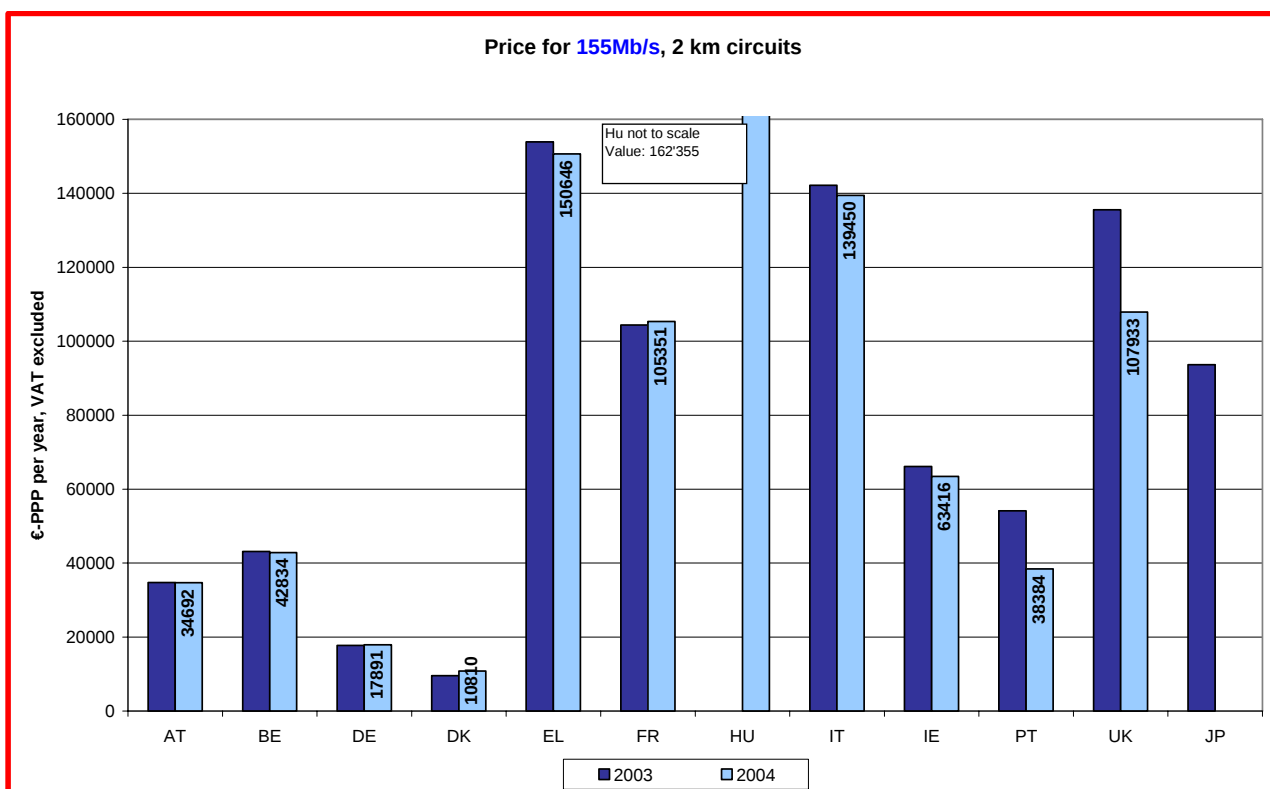
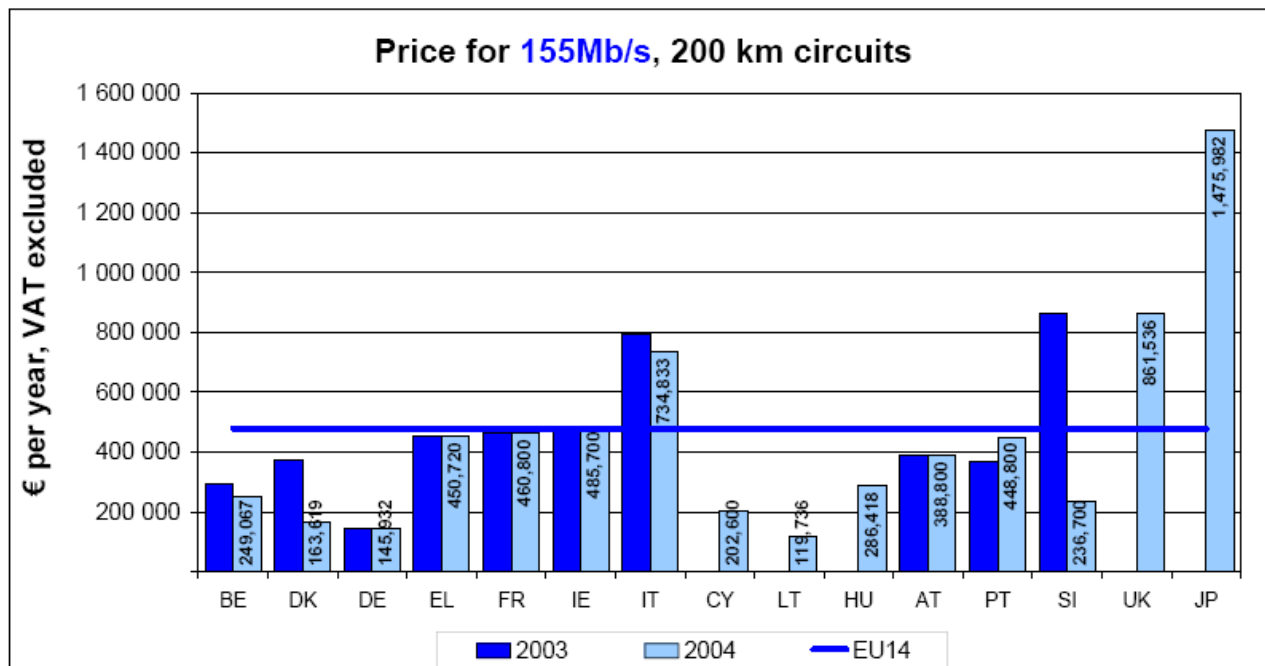


Figure 119



- 2004 data for Czech Republic, Estonia, Spain, Latvia, the Netherlands, Poland, Slovakia, Finland and Sweden not available.

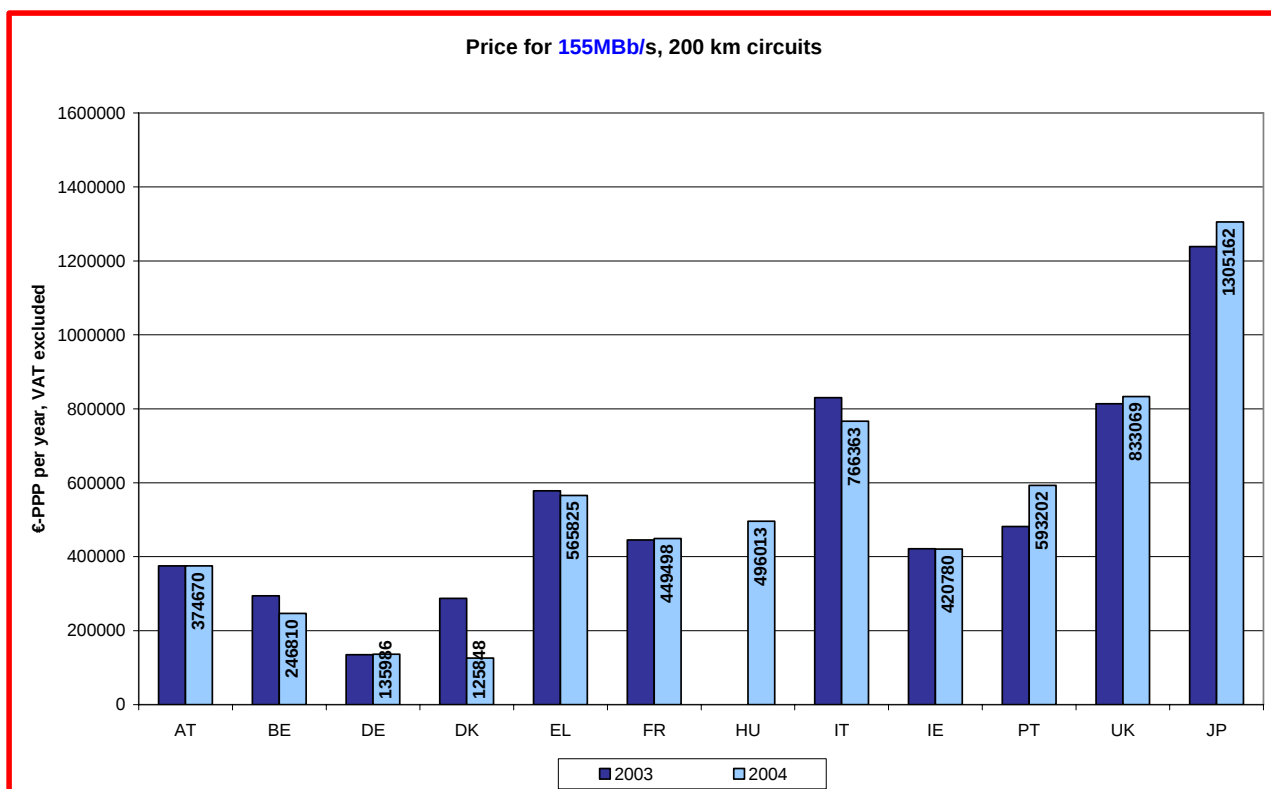
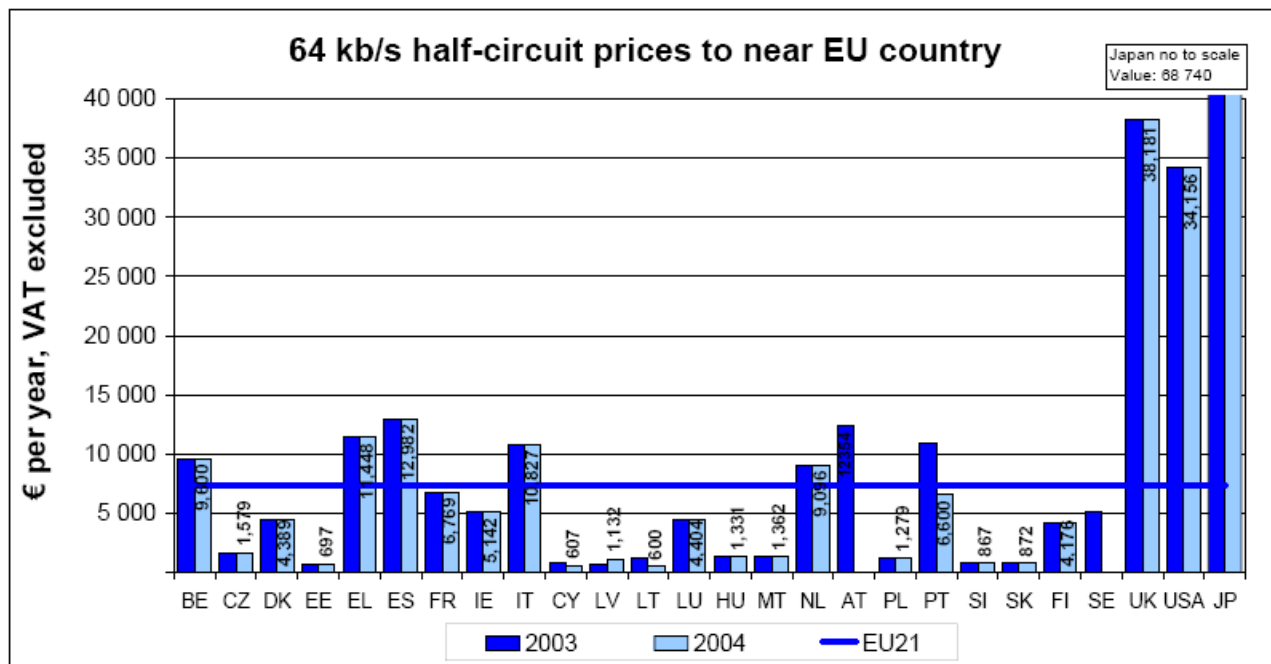


Figure 123



- 2004 data for Germany, Austria and Sweden not available.

- UK prices refer to the so-called "Baseline prices", which are used as a basis for any discounts applied. UK is not included in the EU average.

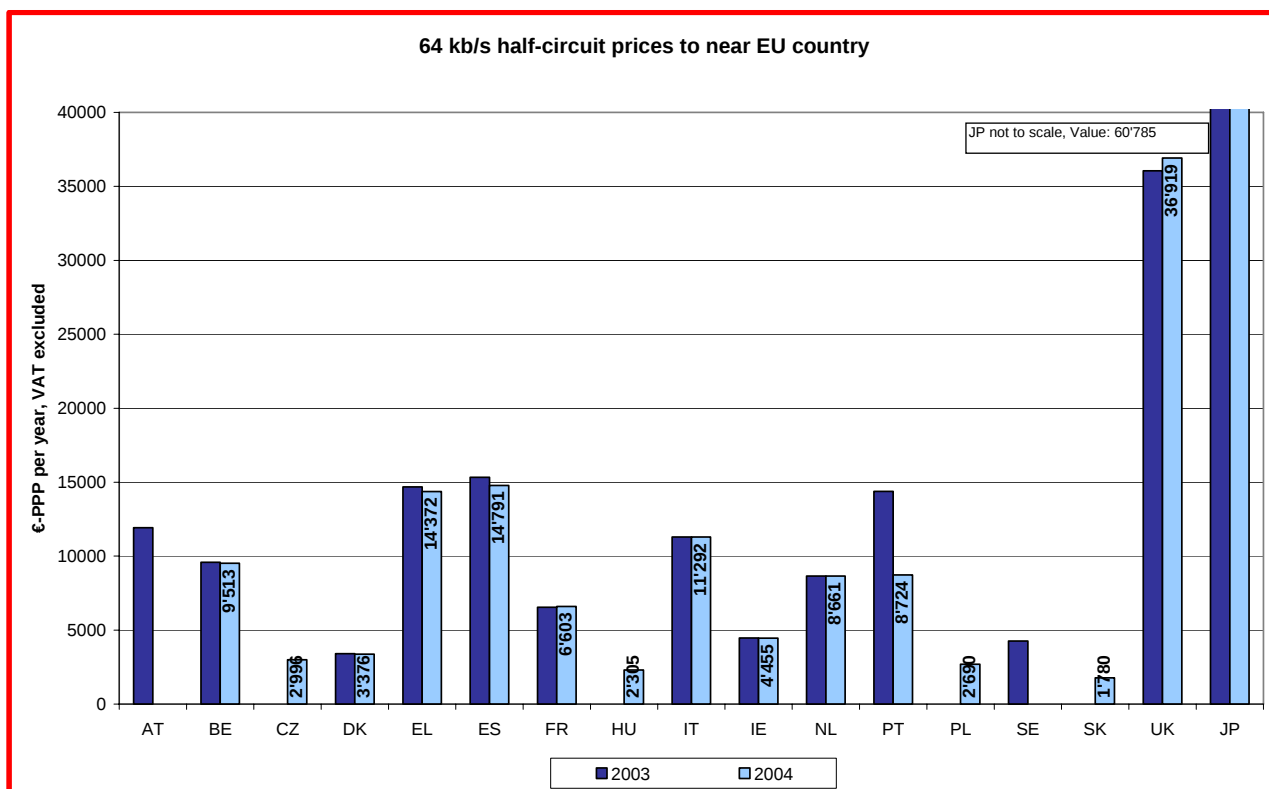
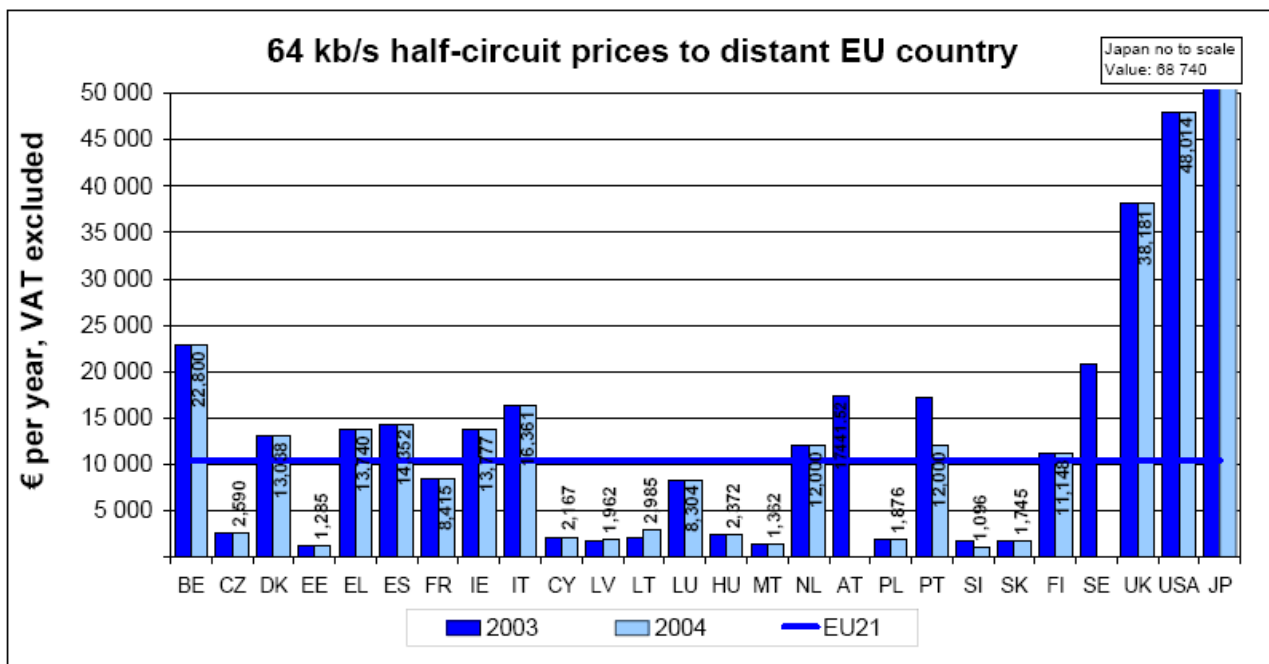


Figure 124



- 2004 data for Germany, Austria and Sweden not available.

- UK prices refer to the so-called "Baseline prices", which are used as a basis for any discounts applied. UK is not included in the EU average.

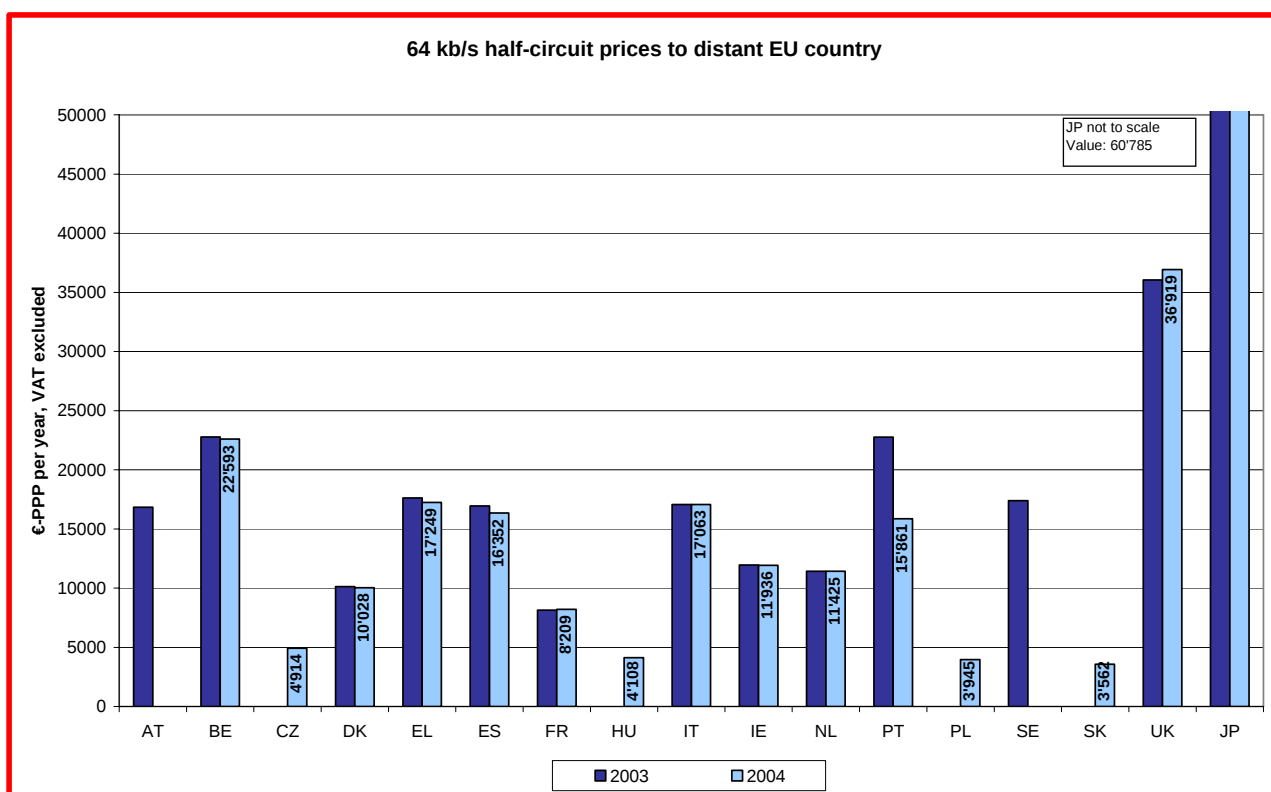
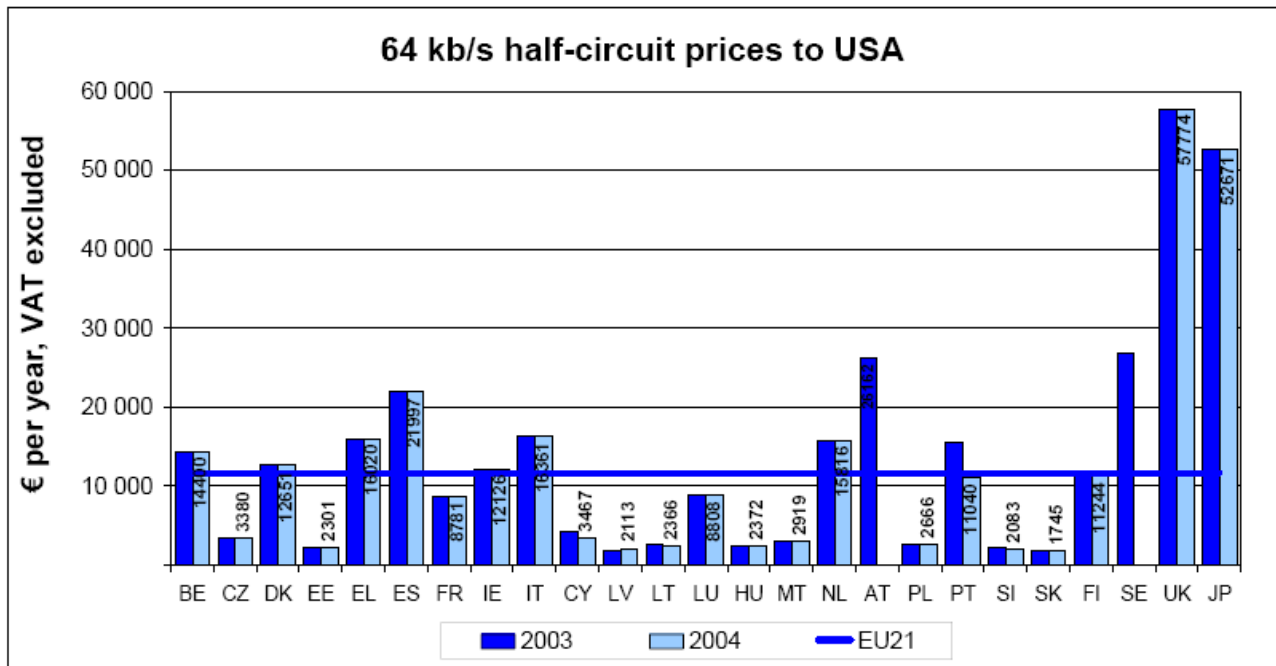


Figure 125



- 2004 data for Germany, Austria and Sweden not available.

- UK prices refer to the so-called "Baseline prices", which are used as a basis for any discounts applied. UK is not included in the EU average.

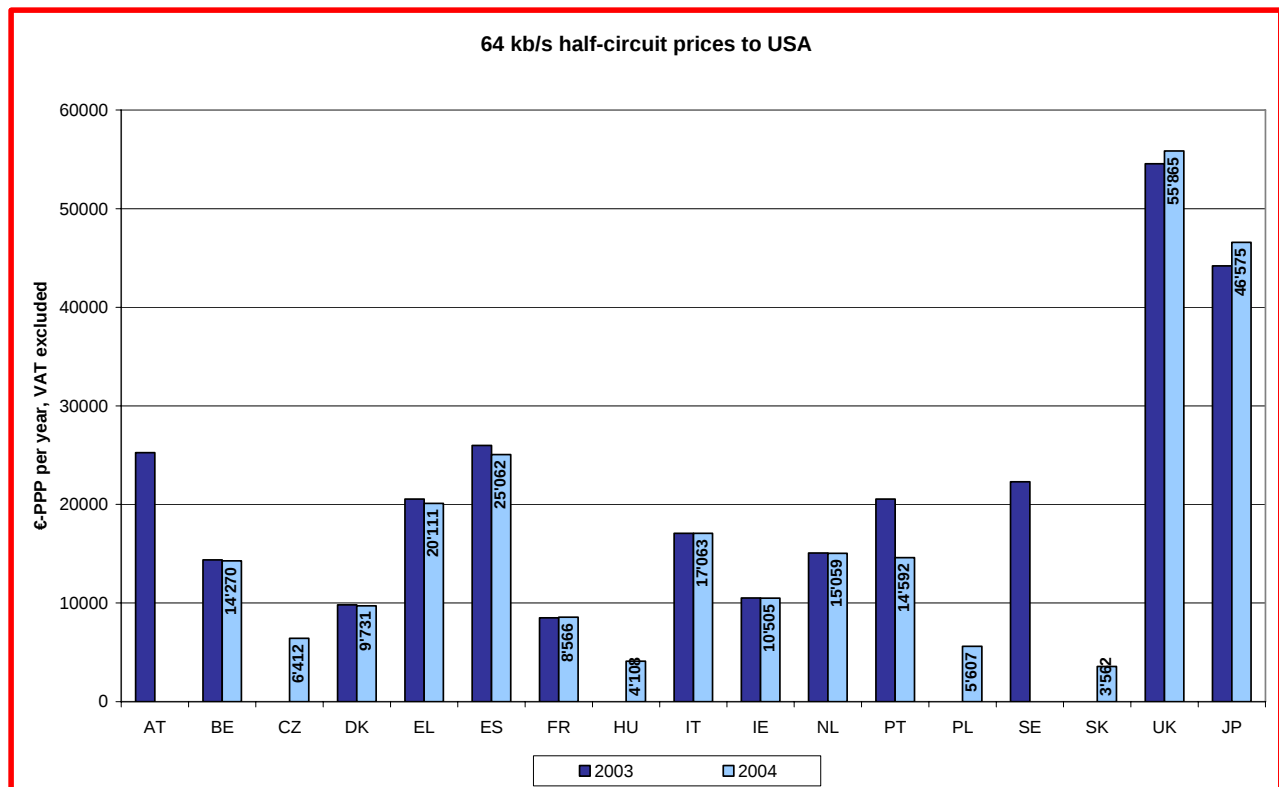
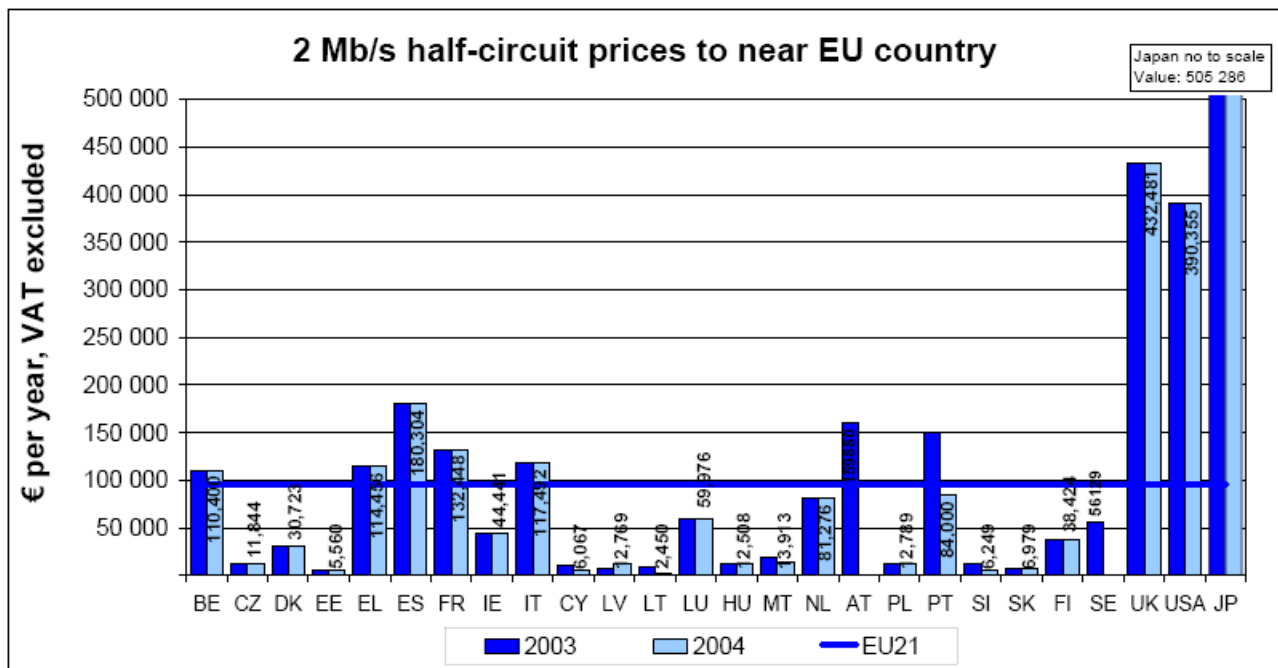


Figure 126



- 2004 data for Germany, Austria and Sweden not available.

- UK prices refer to the so-called "Baseline prices", which are used as a basis for any discounts applied. UK is not included in the EU average.

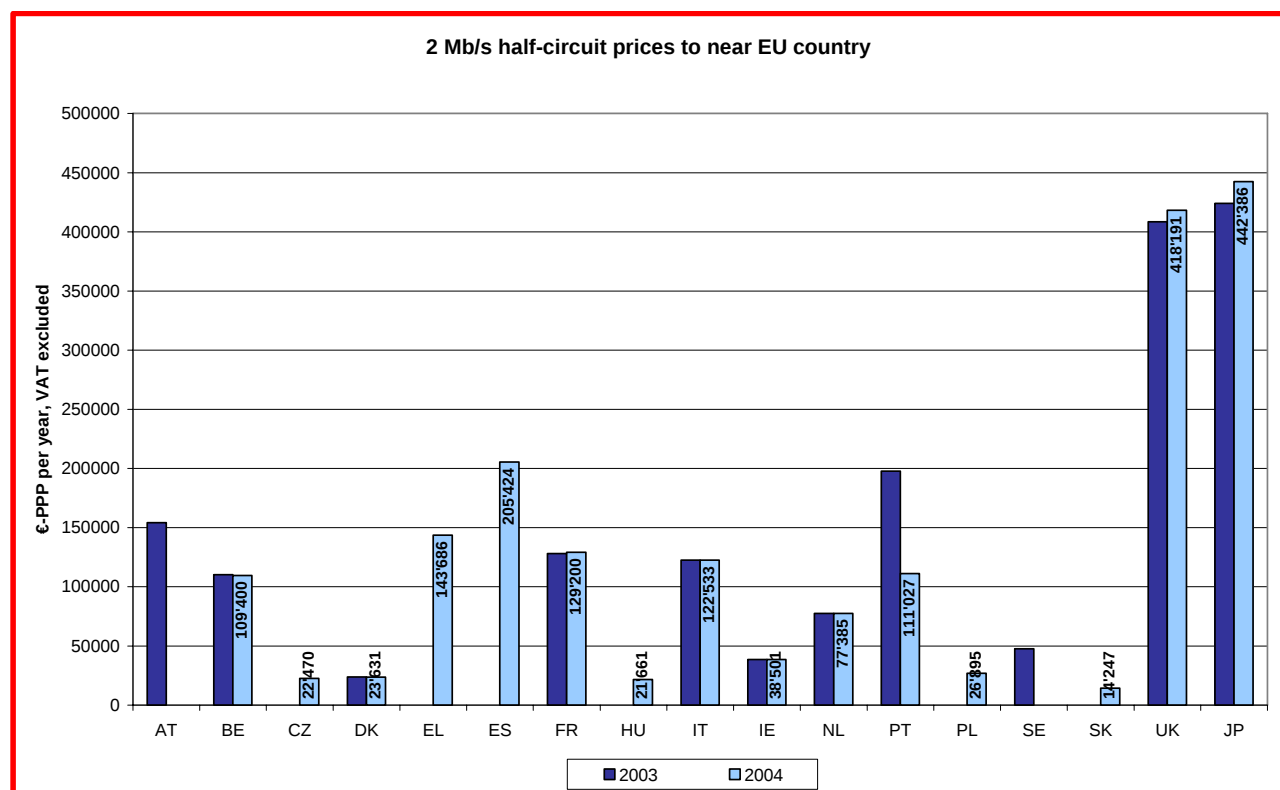
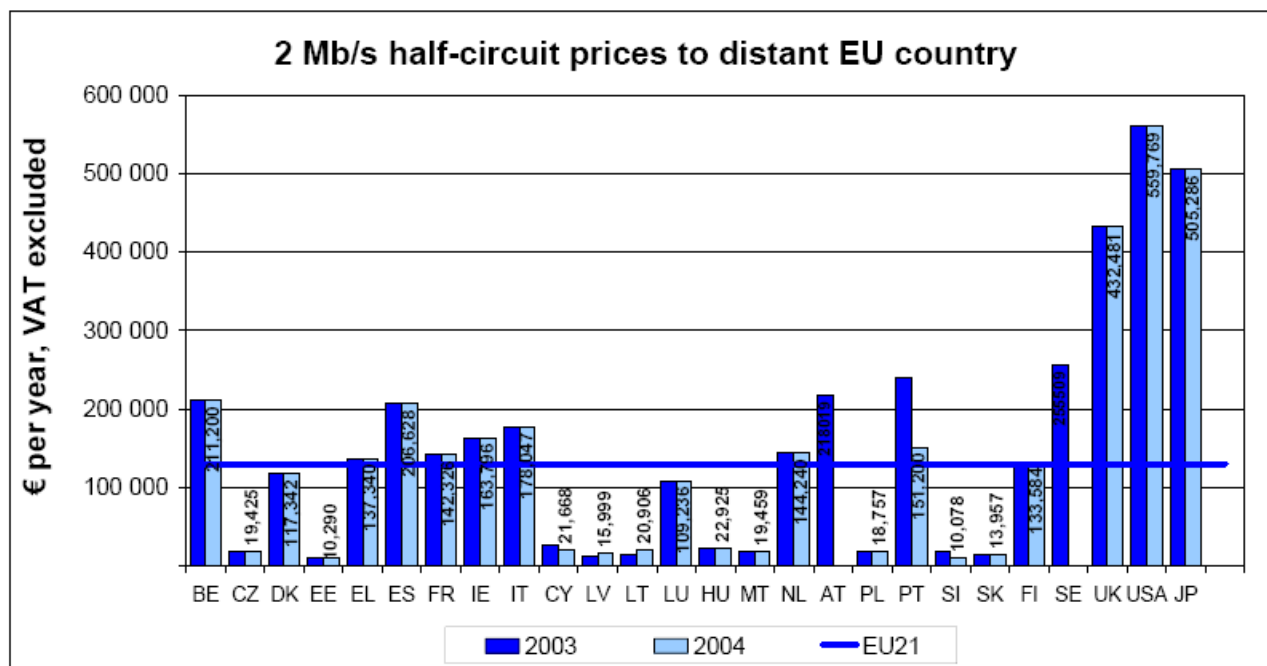


Figure 127



- 2004 data for Germany, Austria and Sweden not available.

- UK prices refer to the so-called "Baseline prices", which are used as a basis for any discounts applied. UK is not included in the EU average.

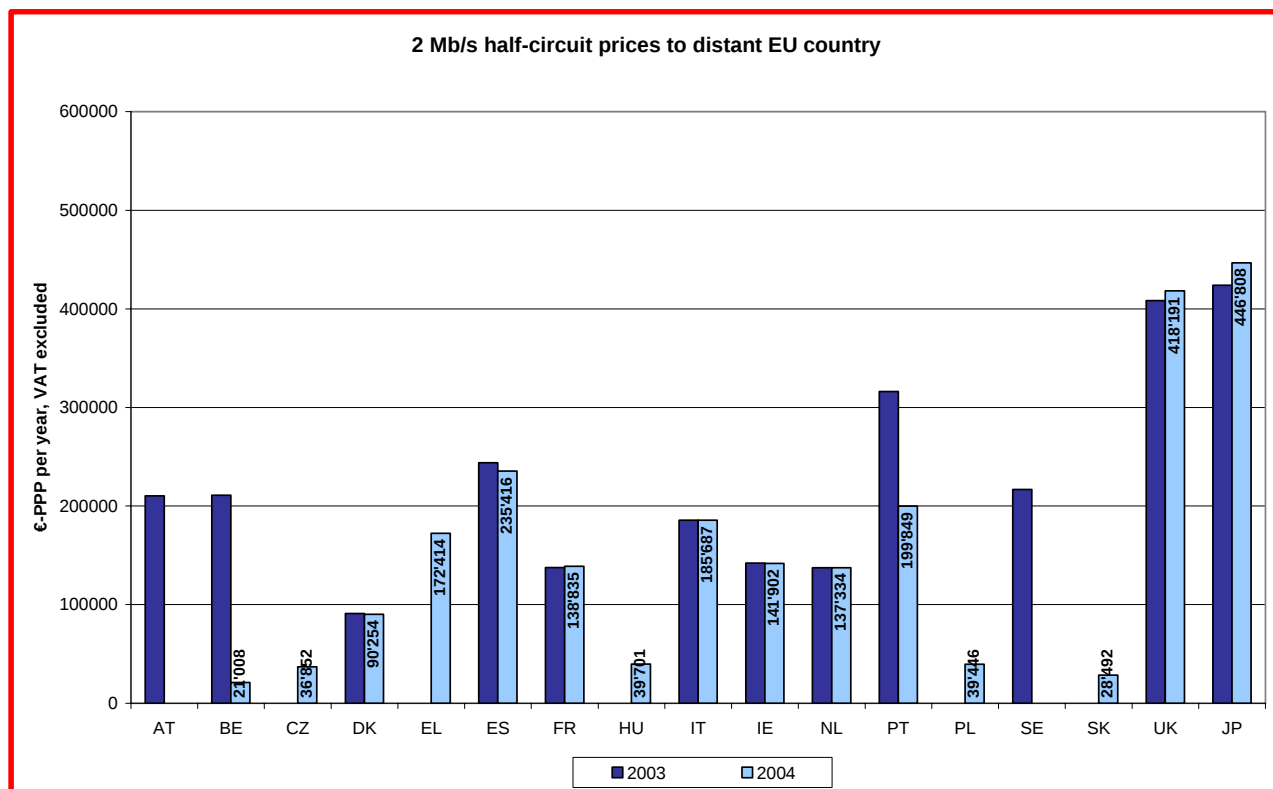
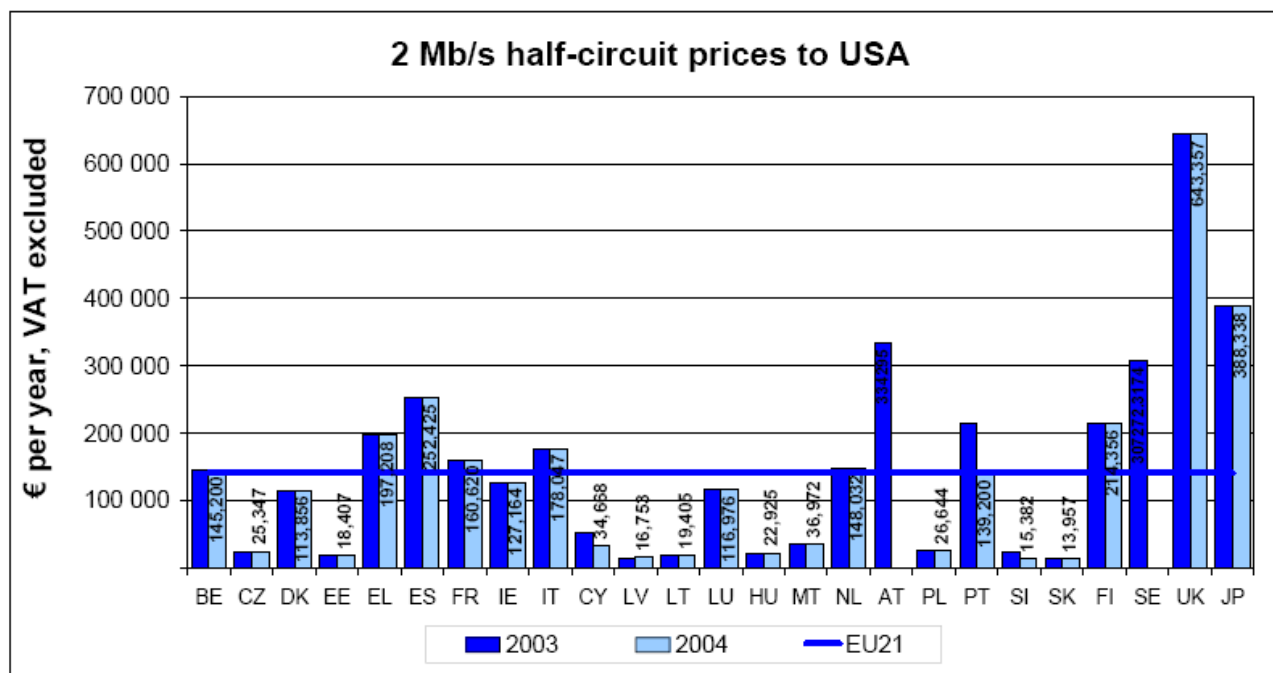


Figure 128



- 2004 data for Germany, Austria and Sweden not available.

- UK prices refer to the so-called "Baseline prices", which are used as a basis for any discounts applied. UK is not included in the EU average.

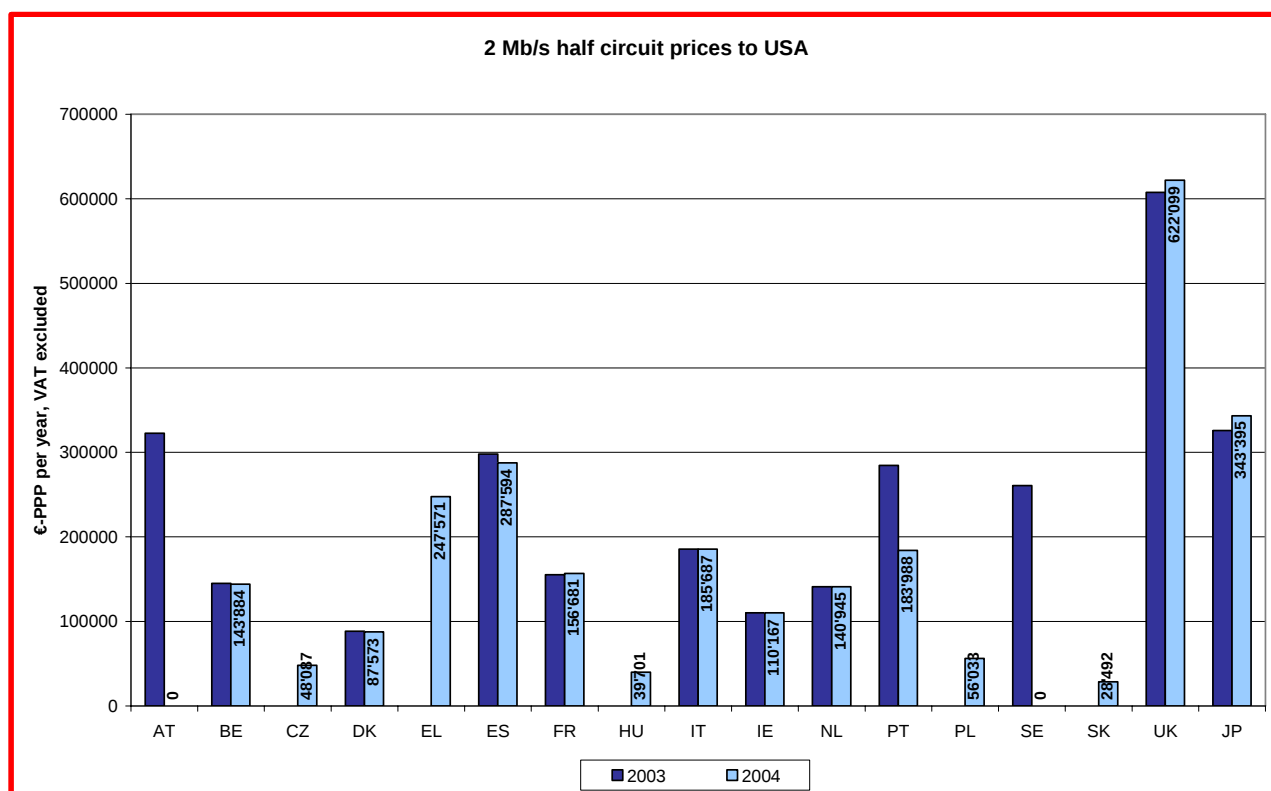
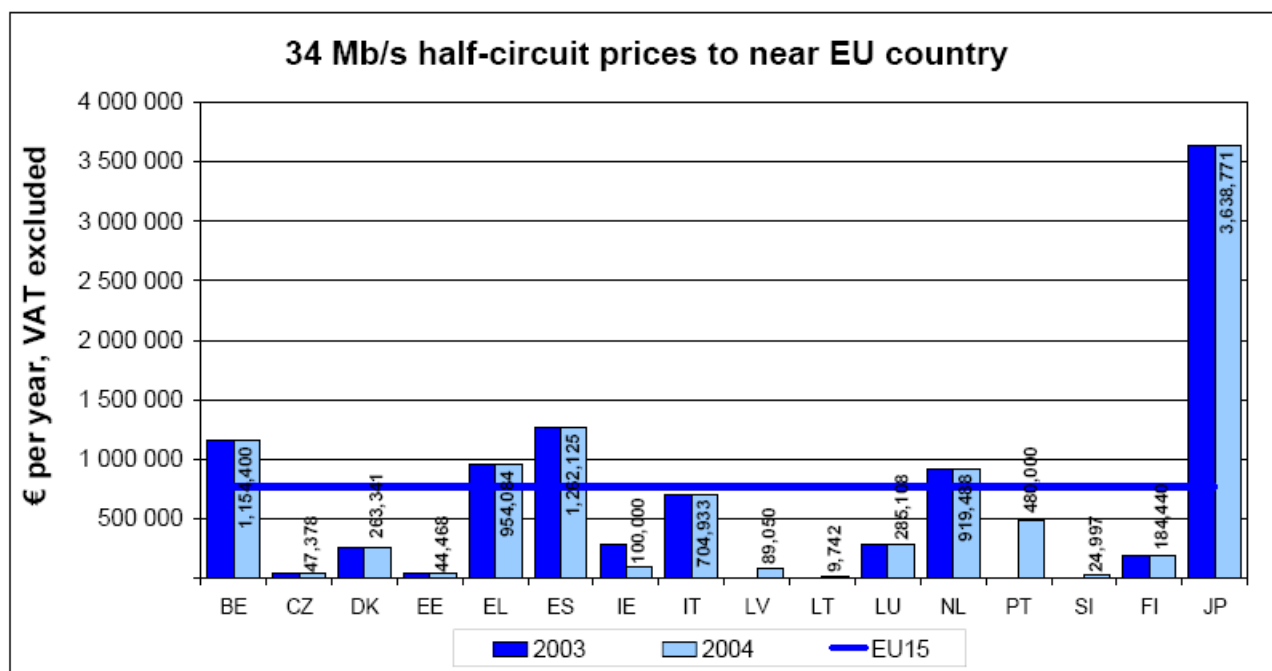


Figure 129



- 2004 data for Germany, France, Cyprus, Hungary, Malta, Austria, Poland, Slovakia, Sweden, United Kingdom and USA not available.

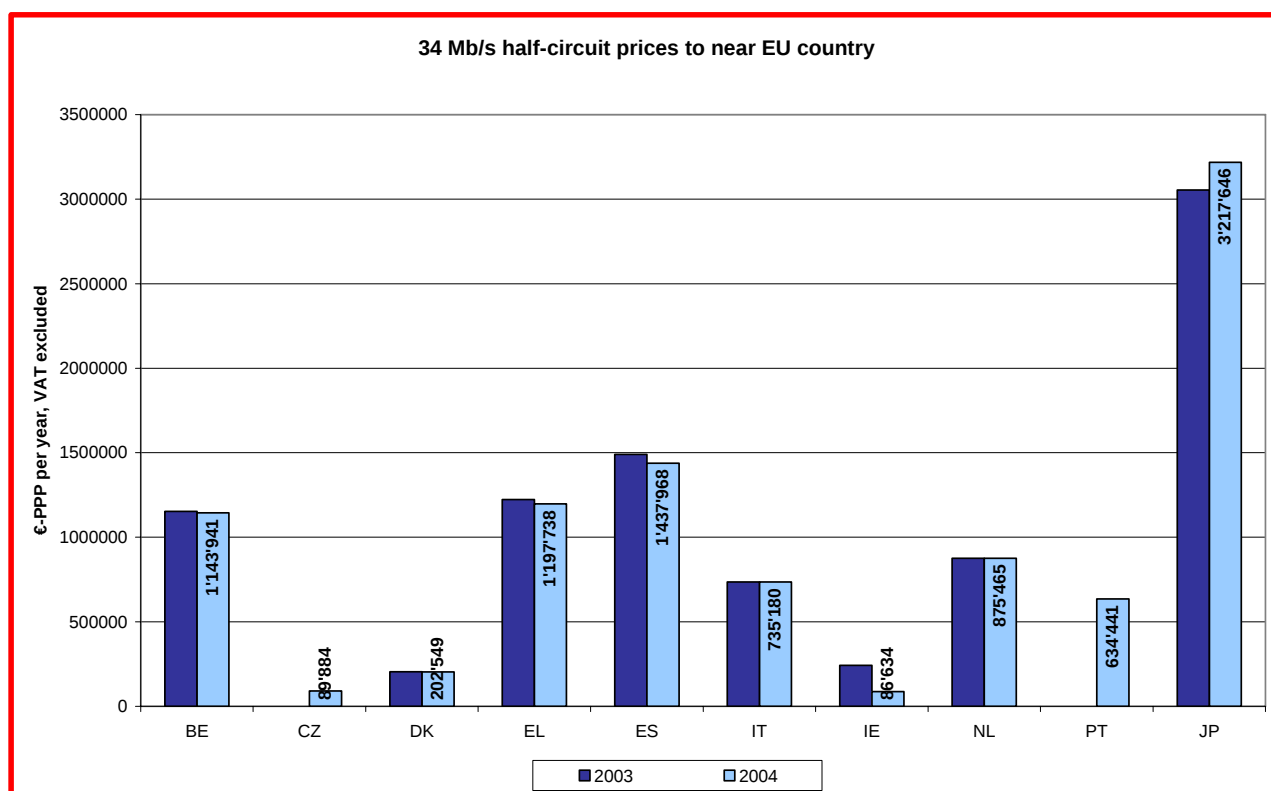
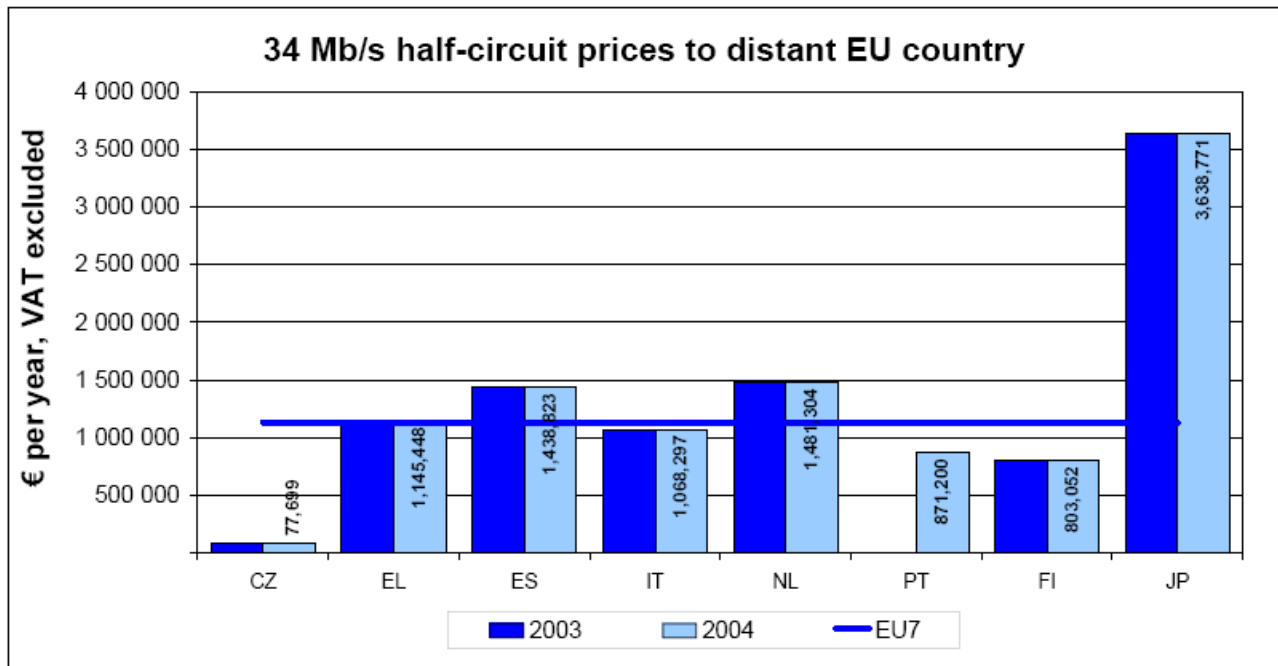


Figure 130



- 2004 data for Belgium, Denmark, Germany, Estonia, France, Ireland, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Austria, Poland, Slovenia, Slovakia, Sweden, United Kingdom and USA not available.

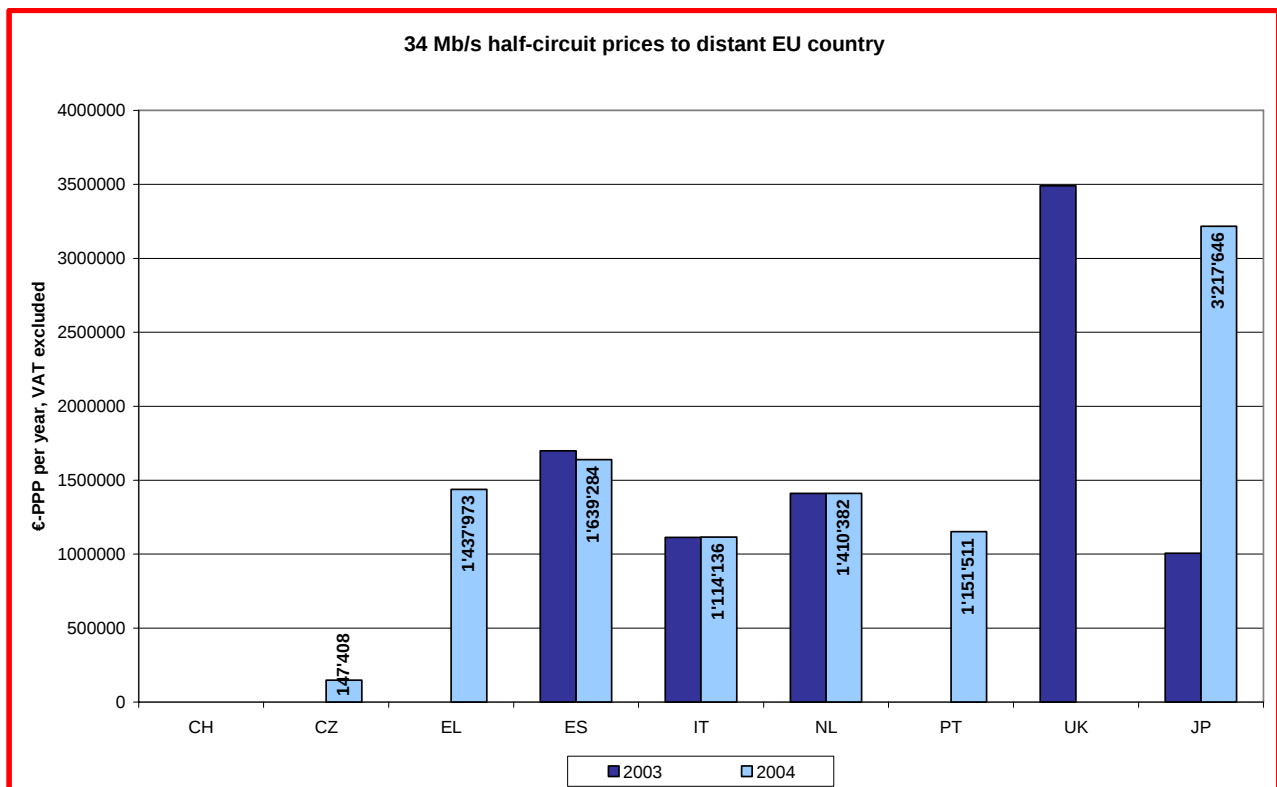
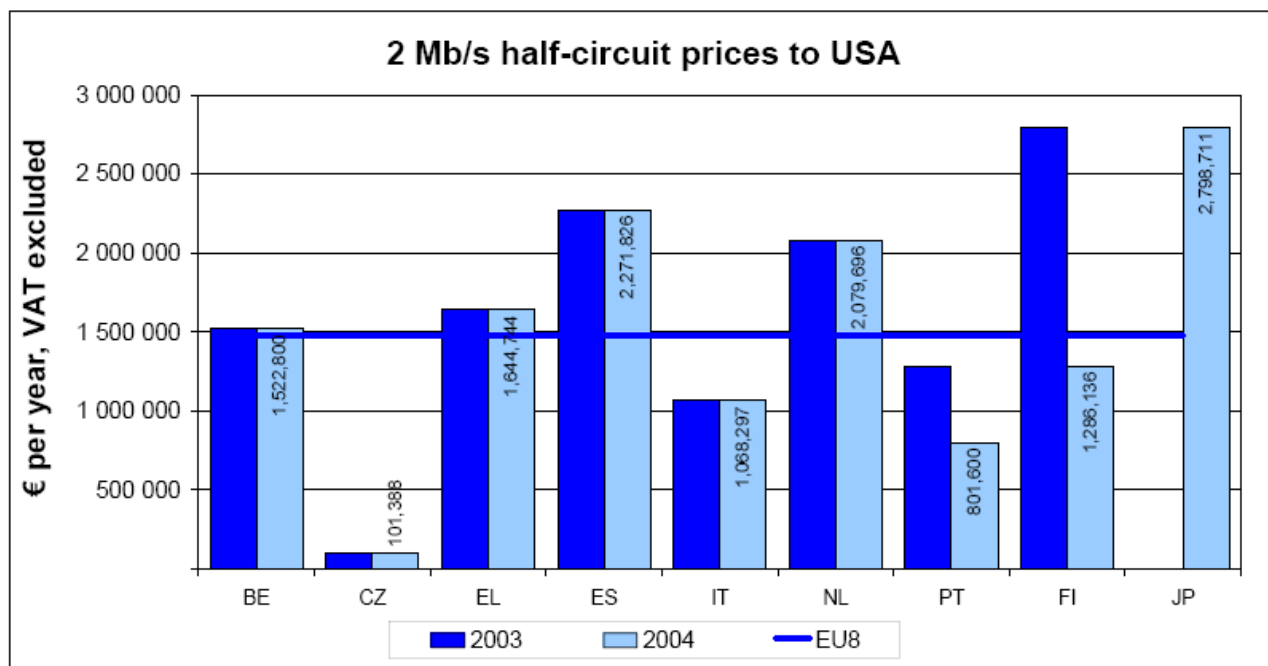
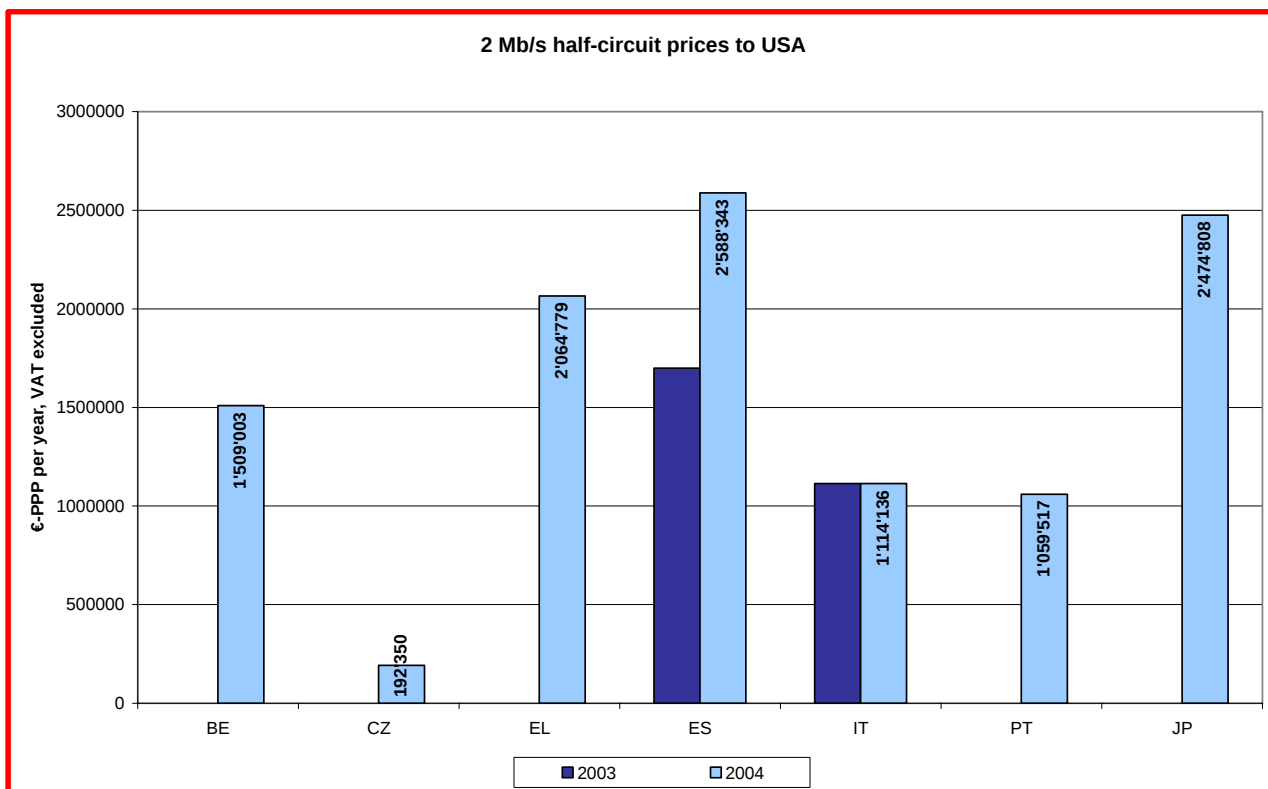


Figure 131



- 2004 data for Denmark, Germany, Estonia, France, Ireland, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Austria, Poland, Slovenia, Slovakia, Sweden and United Kingdom not available.





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