

Public
Version

Reconsideration of D.582

Regulatory Conference
20 April, 2007
Wellington

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Analysis prior to making changes

Session at 10.00 am

Analysis – an incumbent view

- ❑ I joined the Telstra Pricing Group in 1992; when competition in mobiles and long-distance services began. Until I joined wholesale pricing in 2000, I was involved in all aspects of pricing governance and decision-making.
- ❑ Like investment, pricing is subject to present value business case analysis. Each tariff case is tested commercially and also for operational and legal feasibility; where the last includes imputation testing.
- ❑ This internal governance process is consistent with the prior analysis proposed in the “Additional requirements” section of the Draft Reconsideration.
- ❑ Proposed retail price changes must be consistent with the UBS price, and any required UBS adjustment should be implemented simultaneously with the retail price change.

Practicalities – Telecom

- As noted above, Telecom should conduct its own due diligence (along the lines proposed by the Commission).
- Telecom places its faith in operational separation. It may tell you something about costs (but not at plan level) and will say nothing about retail plans – it complements, not replaces the symmetrical testing of UBS and retail pricing.
 - Telstra’s pricing equivalence framework deals only with the 7 “designated services” which include ADSL Layer 2, ULL and LSS
- The reason for the 30-day lag sought (Telecom 13 March para 63) seems weak.

Imputation – regulation 1

- “In relation to a telecommunications service, in applying an applicable initial pricing principle or an applicable final pricing principle that takes a retail price for the service and subtracts any avoided costs saved by the applicable access provider of the service, the applicable access provider is *not entitled to recover* any of the following things in respect of those costs that form part of the avoided costs saved associated with its retail operations:
 - **inefficiencies** in the provision of the service giving rise to higher costs
 - **profits in excess** of what would represent a reasonable return (including reasonable profit) on capital invested

Curious. What about imposing costs (ATM vs IP)?

eg Overage at \$20/GB

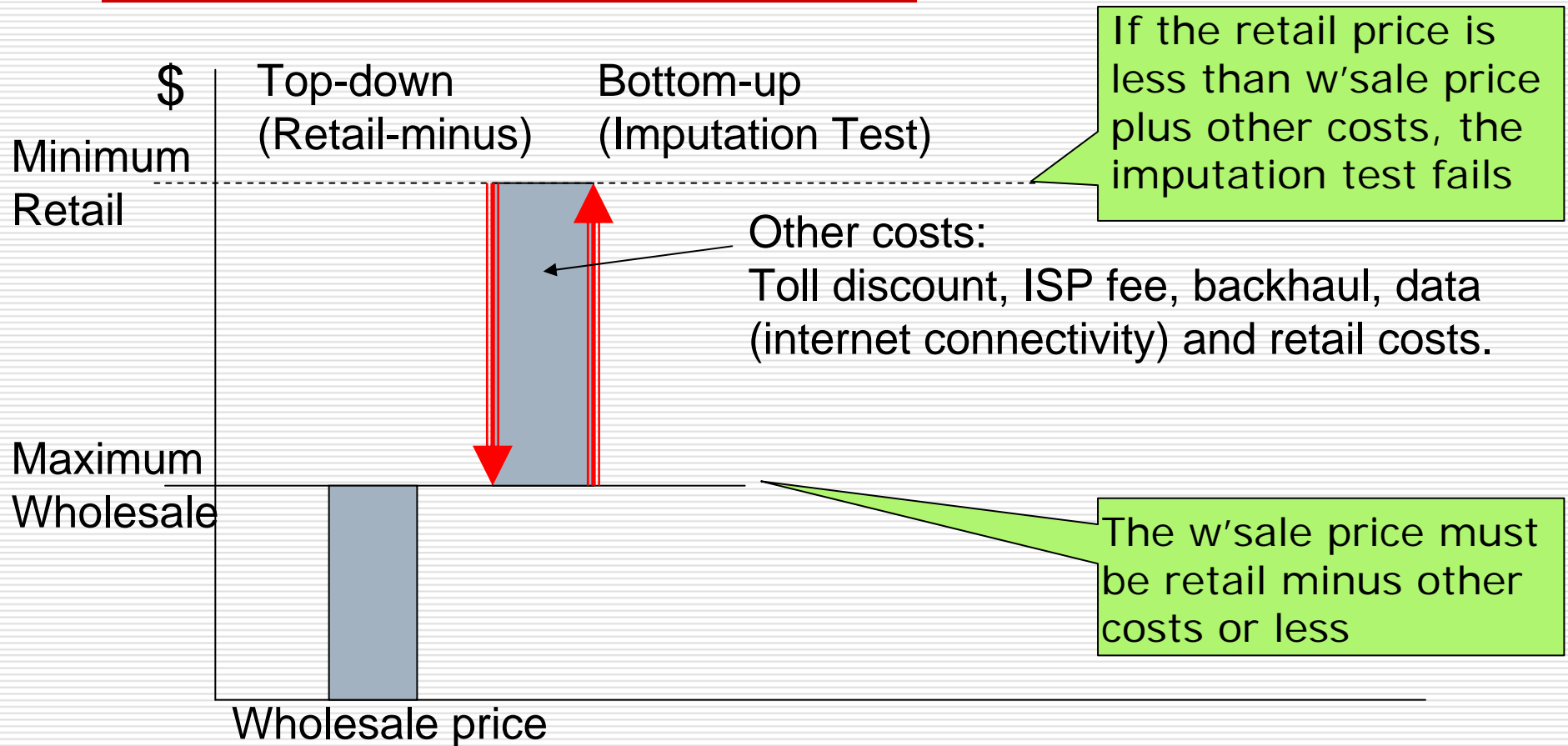
Imputation – regulation 2

- “In Ireland, the regulator has indicated that the relevant benchmark for assessing retail costs is a ‘similarly efficient operator’, which is defined as an operator who has the same cost function as the incumbent but may operate on a lower scale and may incur costs that the incumbent does not face”.
- I agree. This approach would support using access-seekers costs of back-haul as a proxy for the access-provider’s costs. But, it does pose a dilemma (next slide).

Imputation – the dilemma

- “The analysis should demonstrate that the margin between the planned retail prices and regulated bitstream prices is sufficient to cover Telecom’s costs saved, **and** that an equally efficient access-seeker could compete” (Reconsideration, para 122)
- But, these may not be the same. So, do we use Telecom or entrant avoided costs?
 - First compensates Telecom but stifles competition
 - Second may under-compensate but encourages competition (and $>$ TSLRIC)
- The choice depends upon “purpose” which, according to Section 18 “is to promote competition” and what is “robust”
- The Commission also supports the Second (previous slide)
- Whatever cost is used should be used consistently; ie both to determine the UBS price and for imputation testing (next slide)

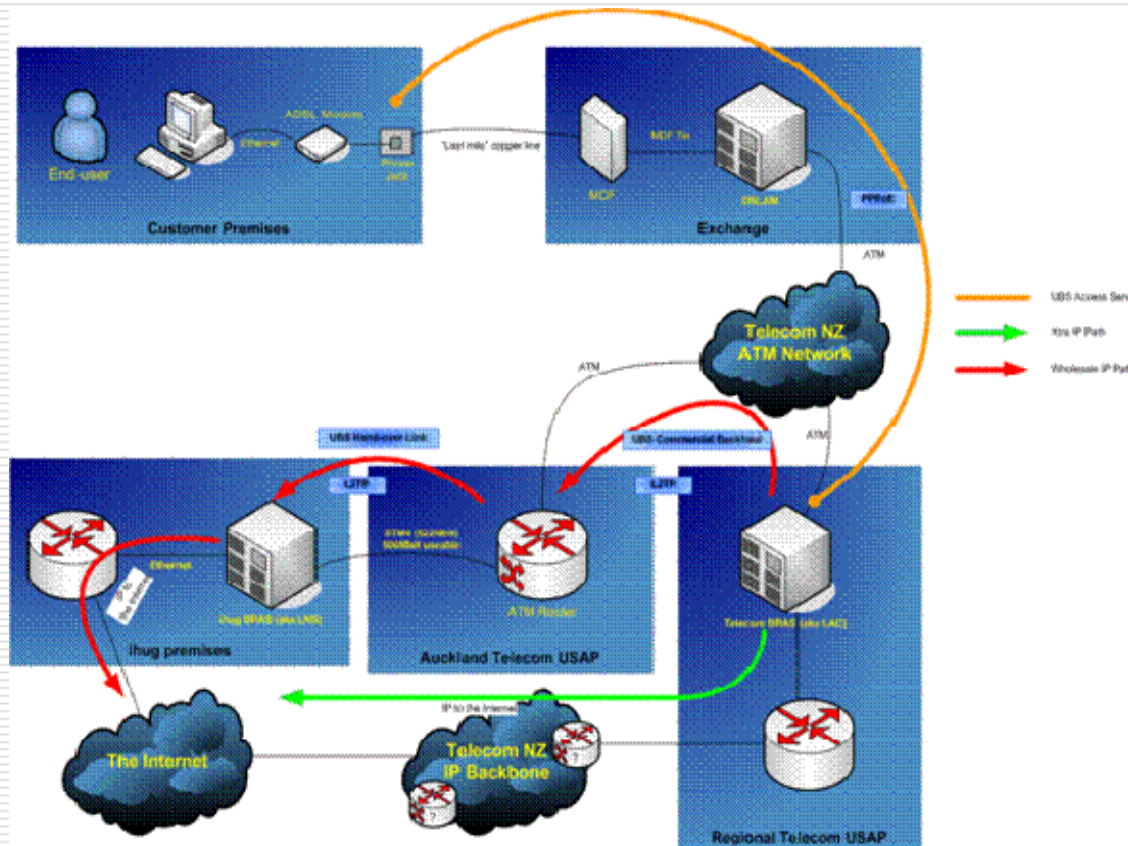
UBS and imputation – one coin



Components of broadband services

Session at 11.45 am

Components of UBS & retail service



Source: Vodafone/ihug

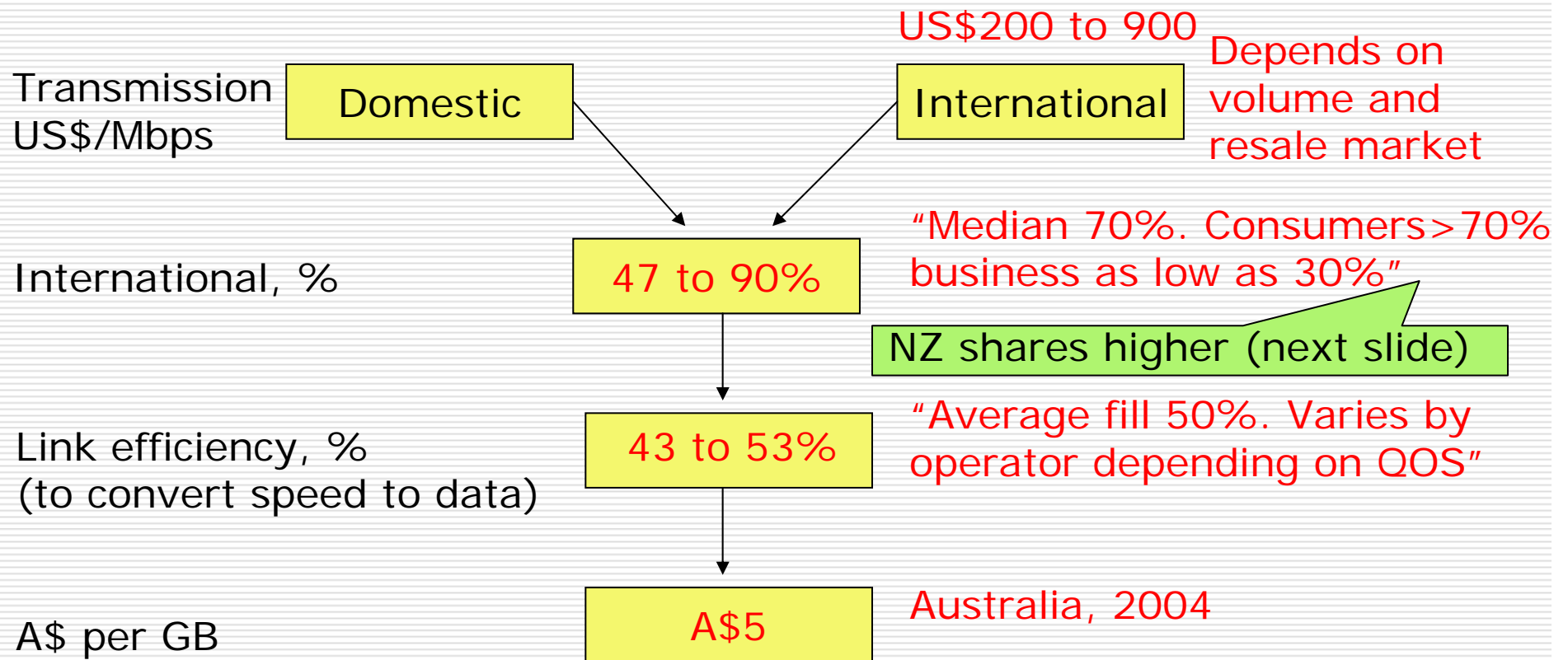
Bandwidth data costs

Session at 1.45pm

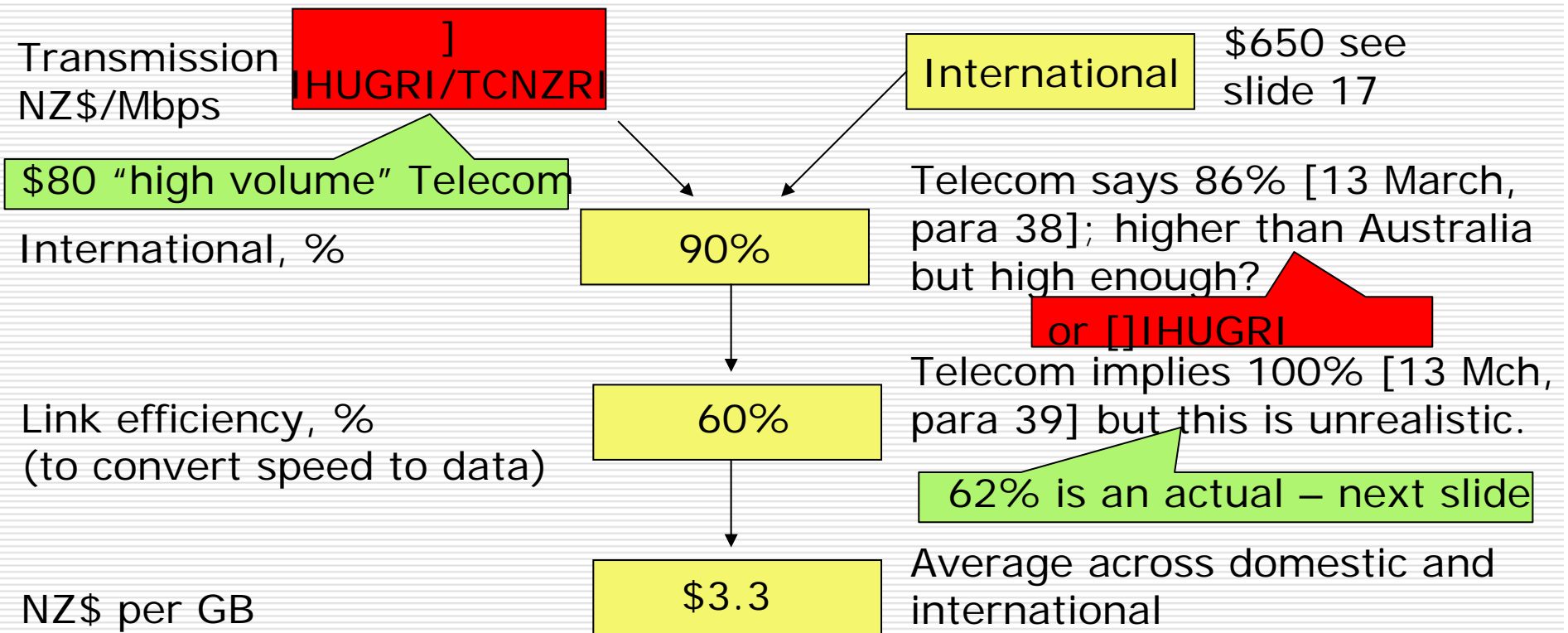
Key inputs - DCITA Study (2004)

Aust Retail ISP	Domestic Australian Global Internet Connectivity Provider	Foreign Global Internet Connectivity Provider	Foreign Domestic Internet Connectivity Providers
Big Pond	Telstra Wholesale	REACH	US - AT&T, MCI/Worldcom C&W Savvis, Sprint NTT Verio, Global Xing, Level 3, Equinix Japan – KDDI, IDC, JNAP, etc NZ – Telecom NZ HK – Reach, HKIX S’pore – Singtel, SOX UK -- LINX
Ozemail	UUNET(MCI)		
Connect	AAPT(TNZ)		
Optus.net	Optus	SingTel	
iPrimus	Optus		
“Other” (700+)	Sprint, AT&T, Ilnet, Commindico		

Key inputs – international data



Key inputs – New Zealand data



Link efficiency[

Drop on Friday due to shifting some outbound traffic to another provider.

- The Friday “outbound” is not relevant to green peaks inbound] IHUGRI
- The above shows that links are not “normally run at full capacity the whole time” [Telecom, 13 March, para 38]
- Ratio Max:Avg is [] IHUGRI
- So efficiency= **62%**

Sources of bandwidth costs

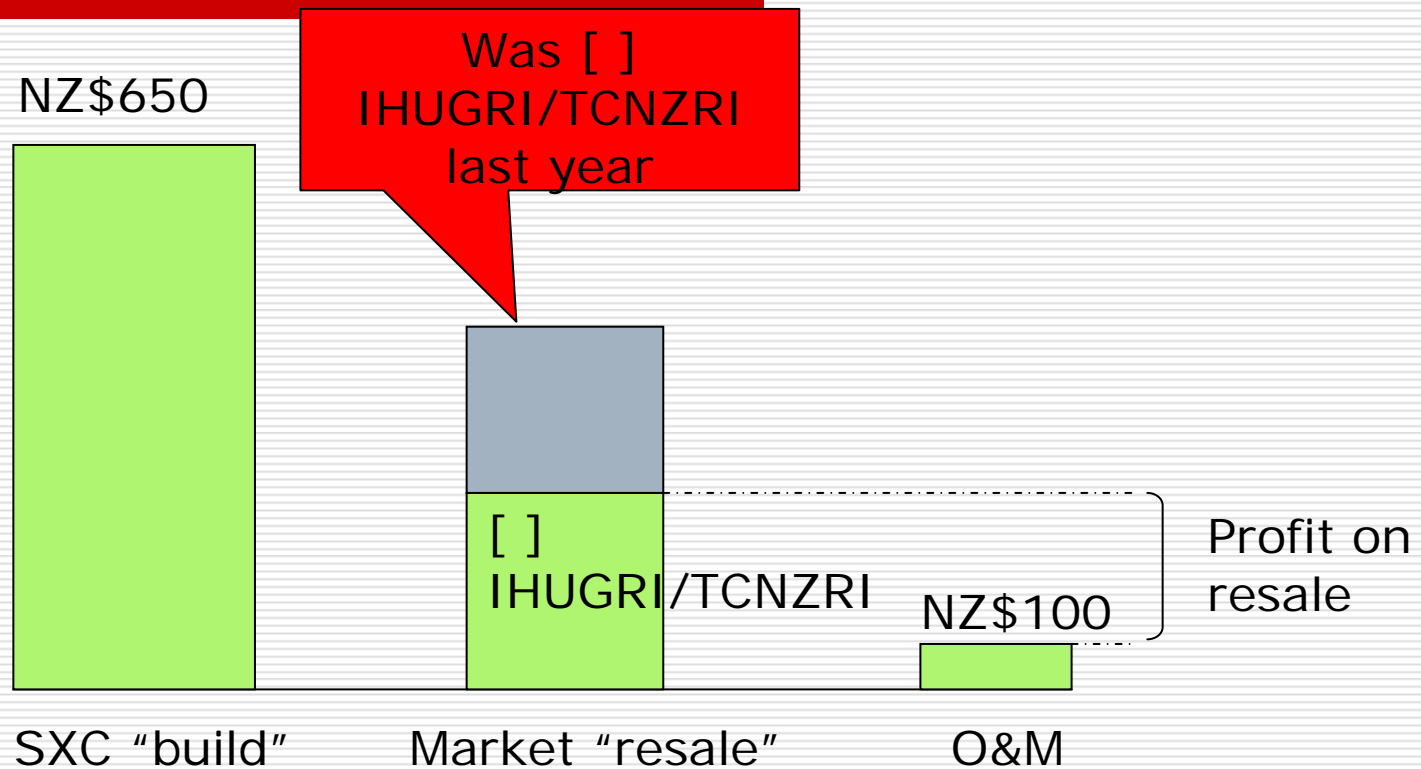
- Possible sources of transmission costs:
 - Telecom's cost (reg. accounting reports?)
 - Telecom's price to ISPs? – "robust"?
 - Other providers? –not "robust" (next point)
 - List prices – eg SXC IRUs
- "The access price should also be robust to any changes in Telecom's avoided costs over time" (Reconsideration, Para 52)
- For robustness and given earlier comments about stimulating competition, the IRU price of an STM1 link could be used
 - Plus []IHUGRI /pm/Mbps for peering/transit connectiv
 - Plus O&M – US\$25/pm/Mbps
 - Yields NZ\$650/pm/Mbps

[]
IHUGRI/
TCNZRI
Per Mbps

US\$435/pm/Mbps =
 $\$2.034\text{m} / (3 * 12 * 130)$

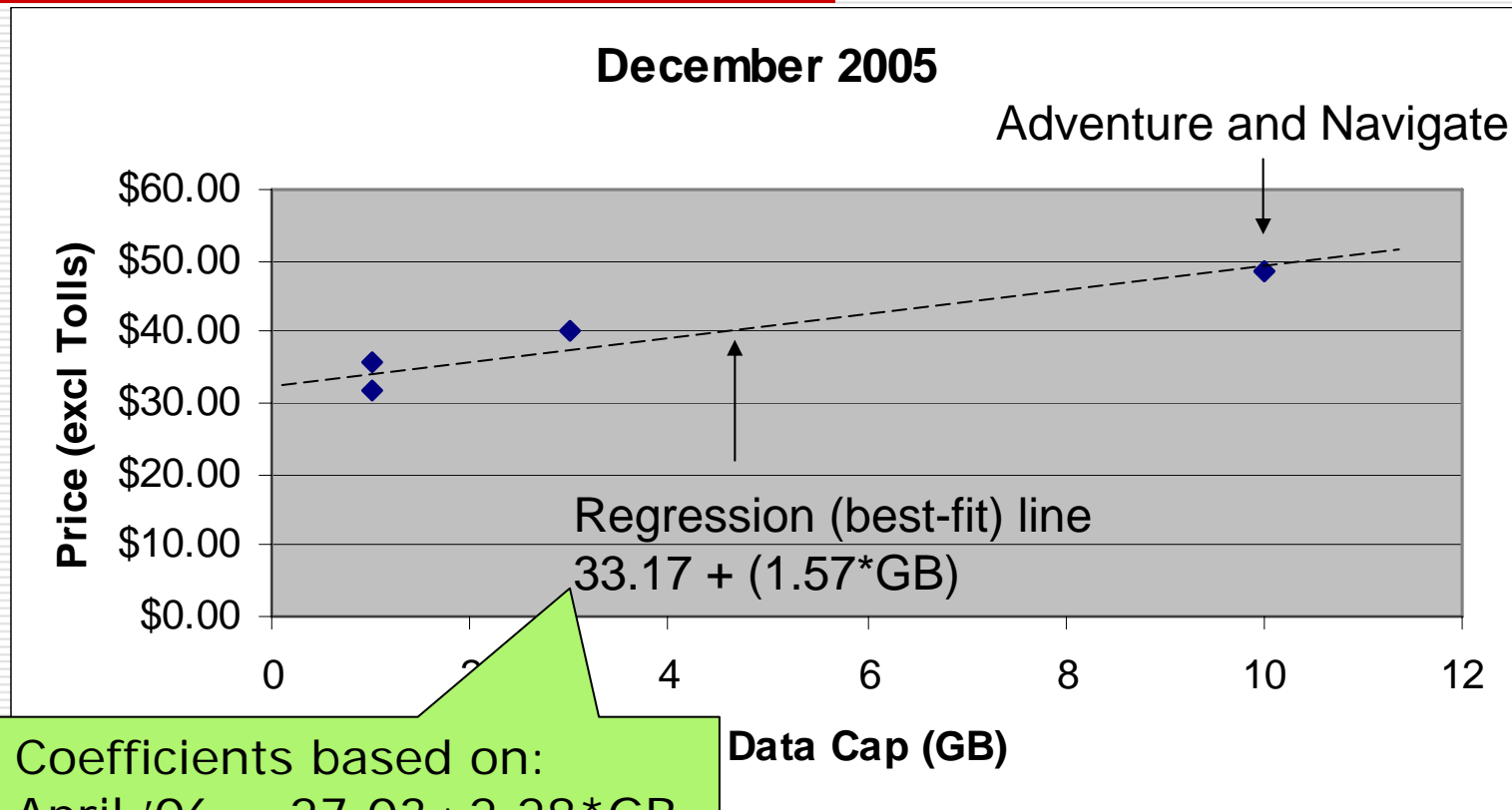
\$700 = \$3.3 to \$4.0 per GB
\$400 = \$2.1 to \$2.5 per GB
For link efficiency = 60 to 50%

Reconciling two sources



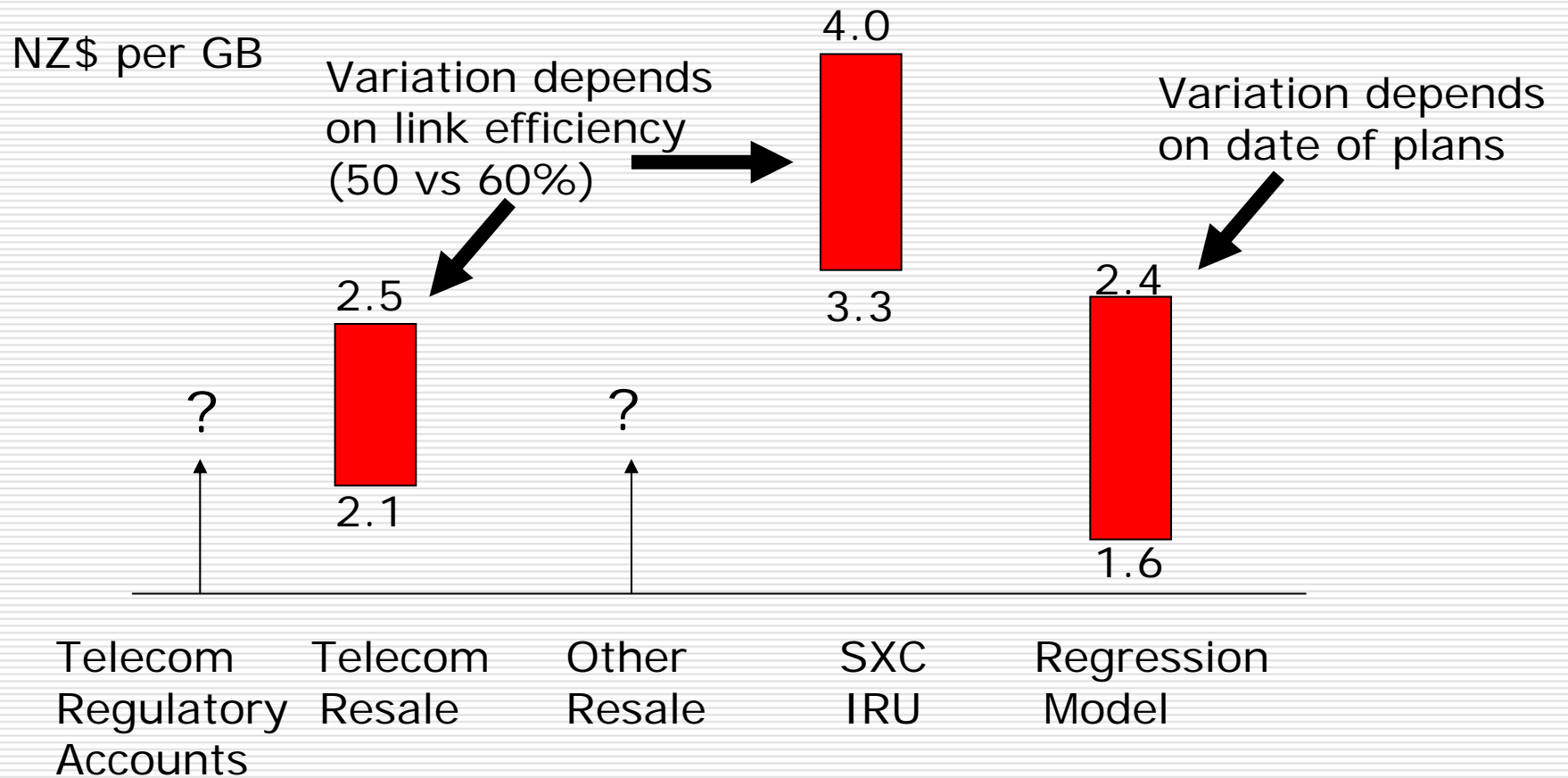
- Market prices are less "robust" (see Telecom's resale prices above) and less sustainable than is desirable for determining a UBS price.
- SXC prices do not change often and are suitable long term prices

Cap costs – “regression method”



Coefficients based on:
April '06 = $27.03 + 2.28 * \text{GB}$
Oct. '06 = $25.92 + 2.45 * \text{GB}$
(assuming GoLarge=6GB)

Ranges of bandwidth costs



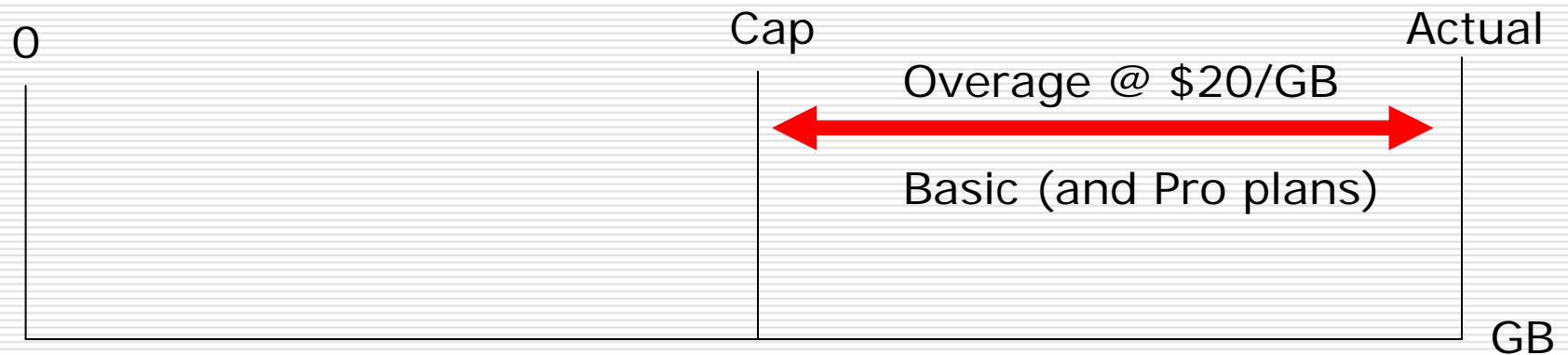
Overage and caps

Session at 3.15pm

Overage and costs

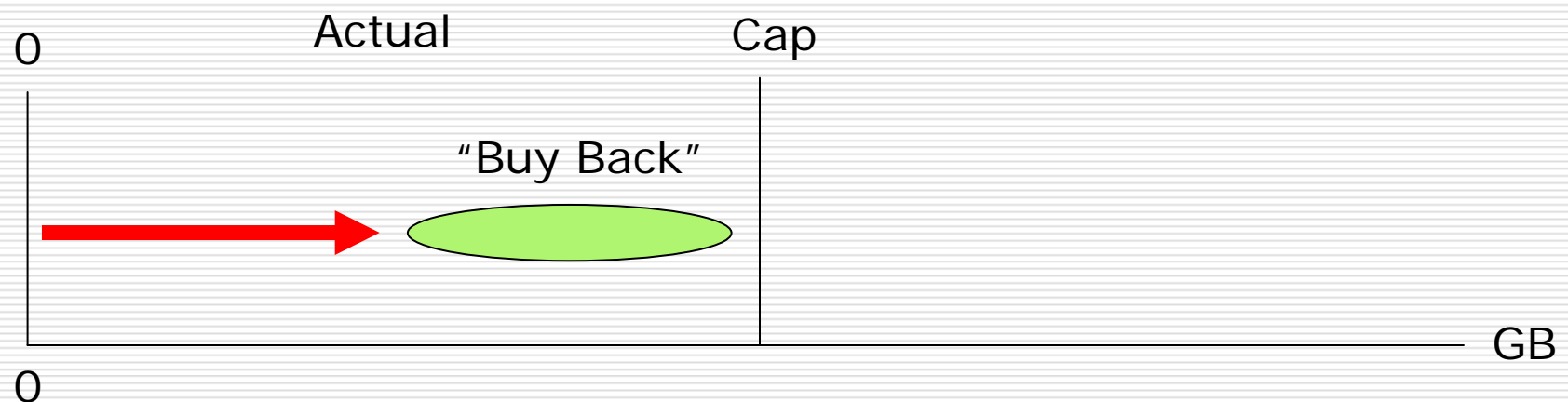
- ❑ Both the price and volume of bandwidth are important considerations in determining avoided costs
- ❑ The volume of data is an important feature of broadband plans and ISPs manage the variable cost risks differently
- ❑ The choices that an access-provider makes about how it manages and prices these risks should not distort regulatory pricing.

Managing usage risk – overage



- Telecom wants to treat overage as retail revenue which would increase UBS pricing now and again later if it becomes FS/FS (due to Pro Plans)
- Reconsideration Para 66 suggests that “overage is a cost factor that is removed ..”
- And The Act says avoided costs should not include excess profit (see slide 6)

Overage and "buy-back"

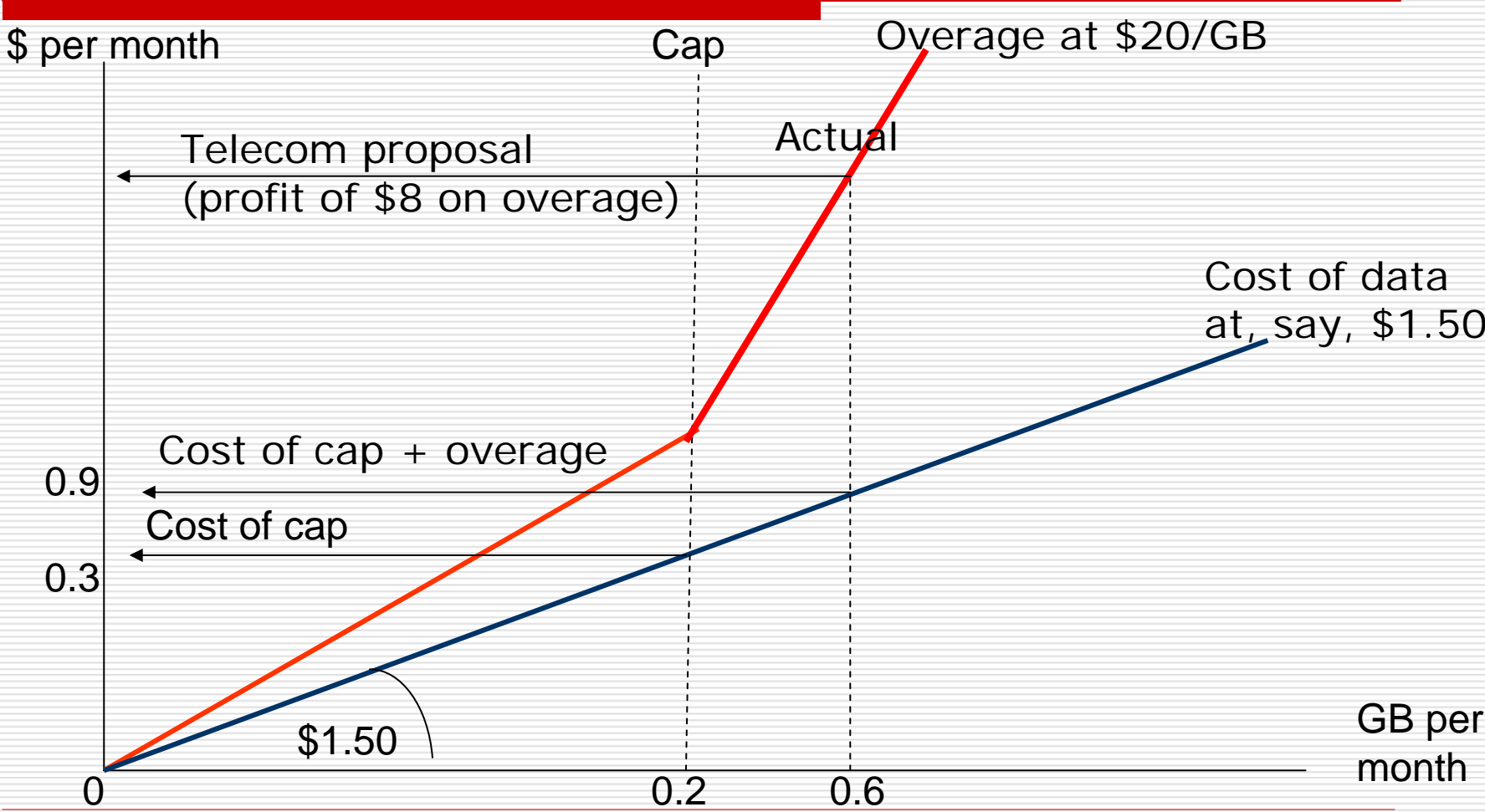


- In arguing for overage, Telecom suggests a hypothetical in which it "could 'buy-back' the GBs that customers didn't use at some appropriate rate" (13 March, para 20)
- This supports the cap as the basis for assessing avoided costs; if retail customers could enjoy savings, so should wholesale customers.
- The cap was the basis for measurement in Decisions 568 and 582

Data volumes – a solution

- There is no doubt that data costs are priced into plans with caps (and Go Large).
 - If Telecom had a customer who did not use his or her broadband plan some month, it would still avoid costs even though actual usage was zero.
- Decisions 568 and 582 valued the volume of avoided usage at the cap. The introduction of Go Large upset this.
- But, the situation is easily remedied.
- The volume of avoided data should be measured as the cap or actual; whichever is greater.
- But the avoided data volumes should be priced at cost.

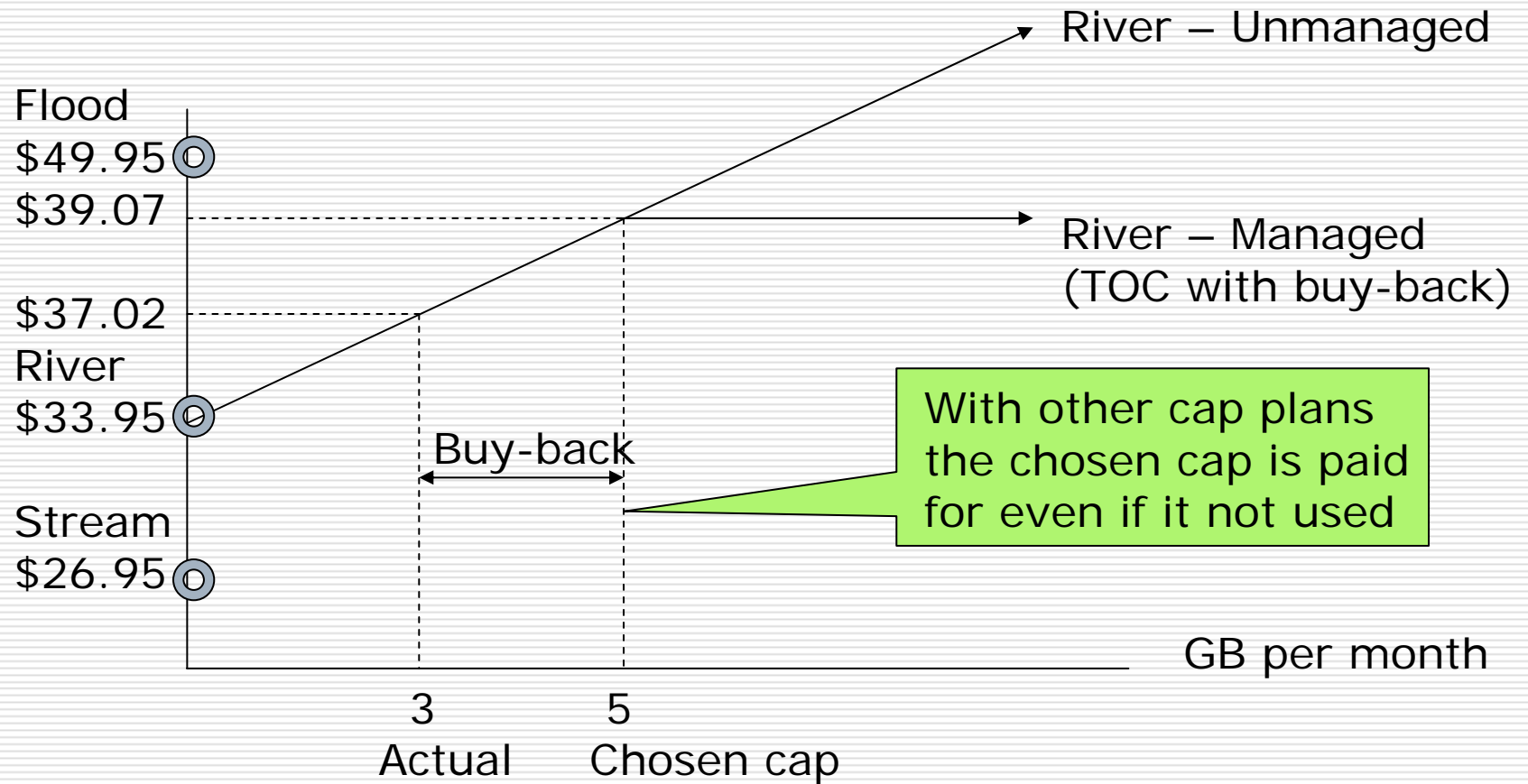
Example - Basic



End of submission

- White-board exhibits from workshop

XNET – TOC with buy-back



The shared dilemma

Telecom “needs certainty” yet,

- UBS pricing is unlikely to guarantee passing imputation test
- the Commission can only set UBS prices on Telecom’s costs

Impact on:

		Telecom	New Entrant
Avoided costs of	Telecom	“Revenue parity”	Cannot compete
	Efficient Entrant	“Competitive parity”	Efficient competition

One way that Telecom can secure certainty is to offer UBS prices that will meet an imputation test (ie use efficient entrant costs).