

Telecommunications in the TPKM economy

Challenges, Practices and Achievements A decade's Retrospection

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Outline

First Reform – From Monopoly to Competition

- ✓ Objectives
- ✓ Challenges
- ✓ Best Practice
- ✓ Achievements

Second Reform – To Create a Competent Regulator

- ✓ Objectives
- ✓ Challenges
- ✓ Best Practice
- ✓ Achievements

Conclusion



First Reform 1996-2001



First Reform (1/4)

Why?

- Create a Liberalized and Competitive Telecom Market
- Plan to Access WTO

Objectives:
WTO Accession

First Reform (2/4)

Challenges:

From Monopoly to Competition

Establishing an Independent Regulator

Pro-competitive Regulatory Measures
 Guiding principles: Fundamental spirit and rules of WTO
 Liberalizing to strengthen
 competitiveness

First Reform (3/4)

Best Practice:

Learned from peer regulators worldwide

Adopted phased approach for liberalization

Achievements:

Overhaul of the Telecommunications Act – Feb 1996

⇒ Several Amendments were made subsequently

Establishment of the independent regulator, DGT – Jul 1996

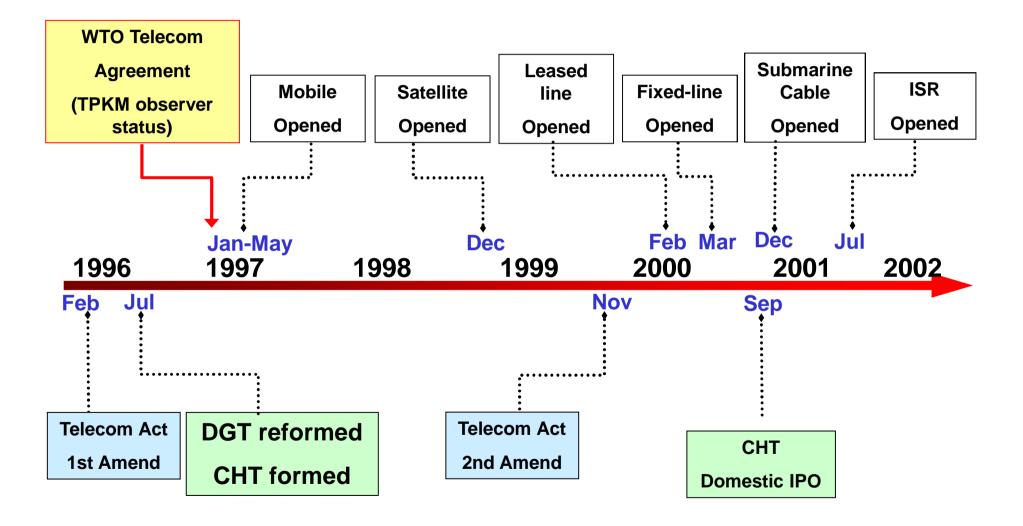
Regulations for network interconnection – Oct 1997

Regulations for governing tariffs – Sep 2000

Regulations on universal services – Jun 2001

DGT : Directorate General of Telecommunications

First Reform Milestones 1996 - 2001



Checklist – Key WTO commitments

| Sector | Limitations on market access | Limitations on national treatments | Compliance |
|--|--|--|------------|
| BASIC TELECOMMUNICATION SERVICES | Mode 3: None except: A service supplier shall be a Company Limited by Shares incorporated in Chinese Taipei. Investment by non-Chinese Taipei persons in a service supplier max: Direct 20 %, Indirect 60 % The aggregate percentage of shares held by non- Chinese Taipei persons in Chunghwa Telecom, including direct and indirect | Mode 3: The chairman and a majority of the board of directors shall be Chinese Taipei nationals. Mode 4: Unbound except as indicated in the horizontal section. | ~ |
| | investment: max. 20 %. Mode 4: Unbound except as indicated in the horizontal section. | | × |
| VALUE-ADDED TELECOMMUNICATION SERVICES | Mode 4: Unbound except as indicated in the horizontal section. | Mode 4: Unbound except as indicated in the horizontal section. | ~ |

First Reform (4/4)

Achievement - full compliance with WTO Telecommunications Reference Paper !



Second Reform 2002 - present



Second Reform (1/19)

Why?

Establish a more effective and restructured independent regulator to ensure impartiality and accommodate the trend of convergence between telecommunications and broadcasting

Second Reform (2/19)

Objective: to establish a Competent Regulator



Second Reform (3/19)

Challenges:

Converging laws and regulations

- ⇒ The outmoded regulatory framework:
- The authorities for telecommunications and broadcasting affairs originally belonged to different departments and were governed by different laws
- Ied to a lack of consistency and efficiency in management for regulators

Second Reform (4/19)

Best Practice:

NCC established in order to

- ⇒ effectively carry out regulatory affairs concerning communications
- ⇒ independently exercise its duties and powers in accordance with the laws

Second Reform (5/19)

Achievement:

- NCC became operational on February 22 2006
 - ⇒ Laws and regulations dealing with communications came under the official responsibility of the NCC
 - The corresponding powers originally under MOTC, GIO, and DGT were transferred to NCC
 - This was also the case for the other laws and regulations that have come under the official responsibility of the NCC.
 Article 2 of the NCC Organization Act

MOTC: Ministry of Transportation and Communication

- GIO: Government Information Office
- DGT: Directorate General of Telecommunications

Second Reform (6/19)

NCC Legal Framework

Fundamental Communications Act

- Defines the principles for the division of responsibilities between NCC and the Executive Branch
- Sets common regulatory principles for communications services

Telecommunications Act Radio & TV Broadcasting Act

 Substantive Laws: Explicitly provide regulation over communication & broadcasting businesses

NCC Organization Act

 Organization Act : NCC's Authorities
 & relevant operating rules

NCC

Second Reform (7/19)

NCC's Challenge 1:

- Ensure its operations can better address the six areas covered by the WTO Telecom Reference Paper:
 - ⇒ Competitive Safeguards
 - ⇒ Interconnection
 - ⇒ Universal Service
 - ⇒ Public Availability of Licensing Criteria
 - ⇒ Independent Regulators
 - Transparent and Objective Allocation and Use of Scarce Resources

Second Reform (8/19)

NCC's Challenge 2:

- Amending relevant laws and regulations in a transparent and consistent manner
 - ⇒ Policies & regulations
 - Approximately 10 Acts and hundreds of regulations and directions need amending
 - The alteration of regulation framework may affect the rights and interests of operators
 - ⇒ A change of traditional perspective is required

Second Reform (9/19)

NCC's Achievements:

 Communications Management Bill drafted for future 3-layer Regulation Framework

| OSI Framework | 3-layer Framework | | | |
|--------------------|--------------------------------|---|--|--|
| Application Layer | | | | |
| Presentation Layer | Layer 3 Content-Application | Providing Services based on the Operation-management | | |
| Session Layer | Content-Application | Layer | | |
| Transport Layer | Layer 2 | Providing communications services based on the facility of the | | |
| Network Layer | Operation- Management | Networking-infrastructure layer | | |
| Data Link Layer | Bottom Layer | Any wired, wireless, optical and electromagnetic facilities for | | |
| Physical Layer | Networking- infrastructure | transmitting communications signals | | |

Second Reform (10/19)

NCC's Best Practices:

- Act according to decisions made by a collegial system
- Make best use of multi-level regulation
 - ⇒ Self-regulation, Co-regulation, Regulation

Stages for Convergence

- 1. Abolish or revise unnecessary regulatory legislation
- 2. Respond to urgent industry needs, complete revision of laws on small scale
- 3. Respond to the needs of digital convergence, complete a comprehensive revision of the Telecommunications Act and the three radio and television laws

Second Reform (11/19)

NCC's Best Practices: Policy Planning System

| Input | Method | | |
|---------------|---|--|--|
| Internal | Discussions among Sub-Groups within the Commission. | | |
| External | Conduct Public Consultation, Public Opinion Survey. | | |
| International | Refer to International Benchmarks | | |
| | | | |

Second Reform (12/19)

NCC's Challenge 3:

- Managing emerging telecom technologies and services sensibly
 - Continually evolving services require updating knowledge and awareness
 - Great deal of effort, increased budget and authorization required
 - Greater understanding of projected scope/success of new services

Second Reform (13/19)

NCC's Challenge 4:

- Easing restrictions on telecom equipment imports and cross-certification agreements
 - ⇒ Requires greater international cooperation
 - ⇒ Needs active participation in international meetings
 - ⇒ Calls for a multilateral or plural agreement on both conformity assessment procedures and common criteria recognition arrangement for electronics and IT products

Second Reform (14/19)

NCC's Challenge 5:

Vacating Analog Television Frequencies

⇒ Fully vacating by 2010

Best Practices:

- Promote set-top box ~ Digital TV
- Close coordination with local governments
- Facilitate the construction of gap fillers for digital TV

Second Reform (15/19)

NCC's Challenge 6:

Accelerate Digital TV development

- ⇒ Create incentives
- ⇒ Enhance diversity of channels and consumers' choices

Best Practices:

- Become a strong advocate of Digital TV
- Establish correct objectives draft proposals etc.

Second Reform (16/19)

NCC's Challenge 7:

Becoming a formal member of international organizations

- Acquiring a fair channel of distribution for telecommunication resources
- Sustaining resources for acquiring and drawing up technical standards
- ⇒ Complete and thorough global cooperation

Second Reform (17/19)

NCC's Best Practices:

- Provide advanced telecommunication networks
 - Increasing significance and role in the region by becoming regional telecom hub
- Participate in international events under the multilateral mechanism
 - Joint effort to ensure interconnecting network of networks and interoperability

Second Reform (18/19)

NCC' s Challenge 8: Providing Access to Universal Services

Achievements:

The first economy to achieve the goal of "Every rural community has broadband internet service"

⇒ 45 rural areas

⇒ Great deal of effort and manpower required to install network

Second Reform (19/19)

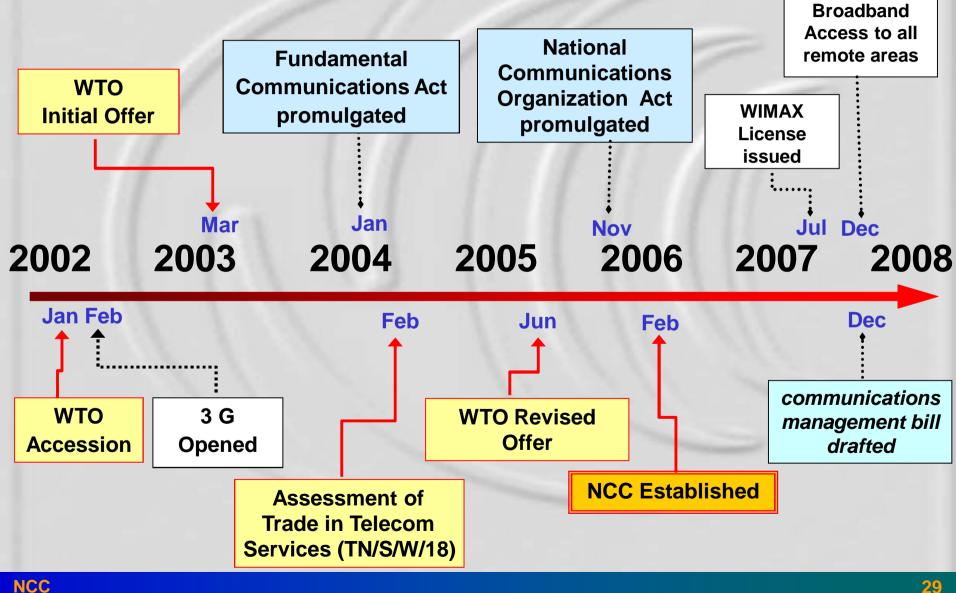
NCC's Challenge 9:

 Implementing Asymmetric Regulations- Wholesale prices for telecom services

Achievements:

 Dominant Type I telecom enterprises shall formulate wholesale prices and refrain from unfair competitive practices

Second Reform Milestones 2002 - present



The Effects of Liberalization

| Item | Category | 1997 | Sep 2003 | Nov 2007 |
|--|-------------------------|--------|-----------------|-----------------|
| Operators | Туре І | 1 | 95 | 97 |
| | Type II | 80 | 436 | 557 |
| Subscribers | Local Phone | 10.86 | 13.29 | 13.31 |
| (Millions) | Mobile Phone | 1.49 | 25.28 | 24.15 |
| (11110110) | Internet (users) | 1.66 | 8.77 | 14.76* |
| | Broadband Internet | | 2.72 | 4.62 |
| Penetration | Local Phone | 49.96% | 58.86% | 58.02% |
| | Mobile Phone | 6.86% | 111.97% | 105.26% |
| | Internet (pop) | 8.00% | 39.00% | 64.4%* |
| | Broadband/Internet | | 30.96% | 70.19% |
| Total | NT\$ Billions | 176.2 | 333.7 (2002) | 371.6 (2006) |
| Revenues | Fixed Network Telephony | 74% | 26% | 20% |
| | Mobile Phone | 22% | 56% | 56% |
| | Data | 4% | 18% | 24% |
| Average Price of IDD per minute (NT\$) | | 29.94 | 6.22 (Nov 2003) | 5.28 (Sep 2007) |

Main source: NCC

* Source: www.find.org.tw



Conclusion



Conclusion

- Liberalization involves short-term pain, but long-term benefit.
- NCC's 3C: Convergence, Competition, Consumer protection
 - Regulations should be constantly reviewed to adapt to the development of market, needs of consumers and innovation of technologies
 - A mechanism under long-term strategy for safeguarding competition is essential
 - ⇒ The regulator should consider public opinions and international benchmarks, and hold periodic talks with stakeholders
- The Removal of Technical Barriers to Trade (TBT) on the issues of conformity assessment procedures and common criteria recognition for ICT products under the multilateral negotiations is necessary



Thank you for Your Attention

