OXERA

OXFORD ECONOMIC RESEARCH ASSOCIATES

MINISTRY OF ECONOMIC AFFAIRS

COSTS AND BENEFITS OF MARKET REGULATORS

PART I: CONCEPTUAL FRAMEWORK

(KOSTEN EN BATEN VAN MARKTTOEZICHTHOUDERS DEEL I: RAAMWERK)

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Nederlandstalige samenvatting

Doel van het onderzoek

Het Ministerie van Economische Zaken (EZ) heeft OXERA gevraagd om een raamwerk te ontwikkelen voor het beoordelen en meten van de kosten en baten van markttoezichthouders. Het onderhavige rapport is het eindproduct van deze studie en bestaat uit twee delen (het raamwerk en een praktische toepassing).[1]

De behoefte aan een dergelijk raamwerk komt voort uit de Motie Heemskerk c.s.[2] Hierin wordt de regering verzocht een helder standpunt in te nemen over toezichthouders in Nederland, en in het bijzonder over de markttoezichthouders. In deze categorie vallen de Nederlandse Mededingingsautoriteit (NMa), de Onafhankelijke Post en Telecommunicatie Autoriteit (OPTA), de Dienst Toezicht energie (DTe), de Vervoerskamer (VK), de Autoriteit Financiële Markten (AFM) en de Zorgautoriteit in oprichting (ZA i.o.).

Het raamwerk dat OXERA heeft ontwikkeld biedt de mogelijkheid om een zorgvuldige en zoveel mogelijk kwantitatieve inschatting te maken van de kosten en baten van de verschillende markttoezichthouders. Het raamwerk beschrijft eerst een aantal belangrijke principes voor kosten-batenanalyse, op grond waarvan op correcte wijze de uitgangspunten voor de analyse zijn te formuleren. Het is van belang deze uitgangspunten altijd expliciet te maken, met name waar het de relevante *counterfactual* en de relevante categorieën van kosten en baten betreft. Waar mogelijk dienen de verschillende categorieën van kosten en baten te worden gekwantificeerd. Het gaat hierbij voornamelijk om schattingen van ordes van grootte en niet zozeer om precieze berekeningen. Een dergelijke kwantitatieve benadering is (nog) niet gebruikelijk in de Nederlandse beleidspraktijk.

Het OXERA raamwerk is te gebruiken voor verschillende beleidsvragen die zich in Nederland kunnen voordoen (hetgeen nadere uitwerking van het raamwerk zal vergen). Mogelijke toepassingen zijn een beoordeling van de voor- en nadelen van het oprichten van een nieuwe toezichthoudende instantie of van het uitbreiden of beperken van de taken van bestaande toezichthouders. In dit rapport is het raamwerk nader uitgewerkt voor de kosten en baten van de huidige markttoezichthouders. Opgemerkt zij dat de illustratieve toepassingen van het raamwerk op de NMa en OPTA (in Deel II) zijn bedoeld als aanvulling op, en niet als herhaling van, verschillende andere evaluaties en kosten-batenanalyses (waaronder bijvoorbeeld de periodieke evaluaties van de NMa en OPTA). De principes en technieken die staan beschreven in het OXERA raamwerk kunnen echter wel van nut zijn voor dergelijke exercities.

Opzet van het rapport

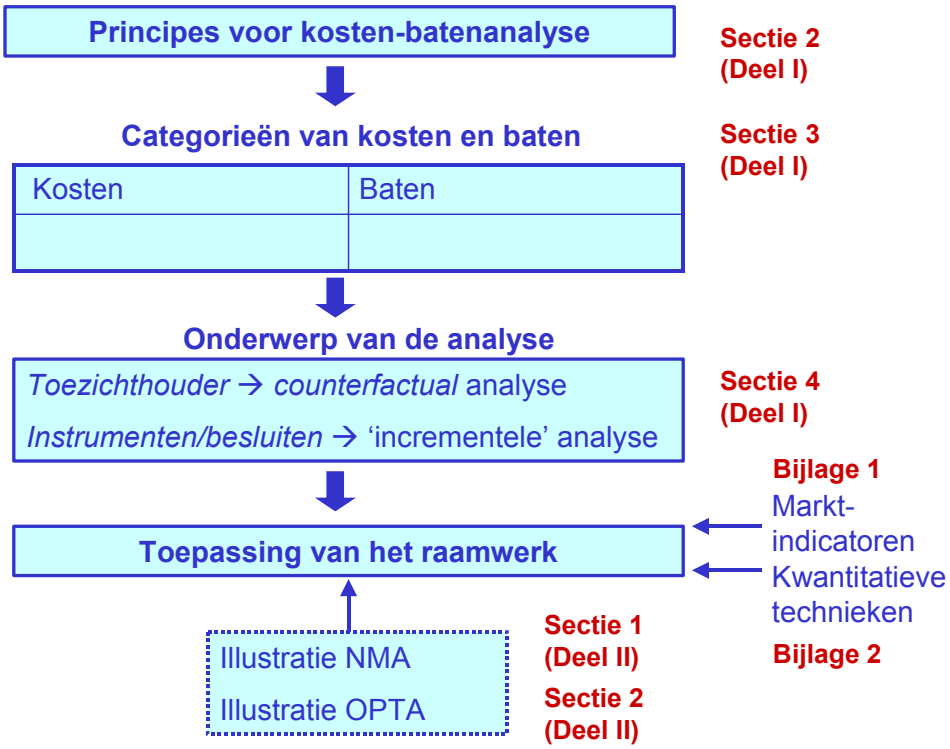
De figuur hieronder geeft een overzicht van de opzet van dit rapport. Deel I beschrijft het raamwerk en is verdeeld over secties 2 (principes), 3 (categorieën van kosten en baten) en 4 (uitwerking van het raamwerk). Deel II bevat de illustratieve toepassingen op de NMa en OPTA (in respectievelijk secties 1 en 2 van Deel II), evenals twee bijlagen die een beschrijving geven van marktindicatoren die relevant zijn voor de analyse (bijlage 1) en van een aantal toepasbare kwantitatieve technieken (bijlage 2).

Het doel van de beide toepassingen in Deel II is om te laten zien hoe sommige van de kosten en baten van de NMa en OPTA zijn te kwantificeren en welke technieken daarbij kunnen worden gebruikt. Het gaat uitdrukkelijk niet om volledige metingen van de kosten en baten van beide

[1] Wij danken de medewerkers van EZ, het CPB, de NMa, OPTA en AFM voor hun nuttige suggesties en opmerkingen. OXERA is geheel verantwoordelijk voor de inhoud van het rapport.
[2] Tweede Kamer, vergaderjaar 2003-2004, 29 200 XIII, nr. 5.

toezichthouders. De analyse door OXERA is beperkt tot een aantal casussen die op grond van openbare informatiebronnen en binnen de beschikbare tijd konden worden uitgevoerd. Wel bieden deze casussen al enig inzicht in de orde van grootte van sommige kosten en baten van de NMa en OPTA.

Opzet van het rapport



Principes voor kosten-batenanalyse

Het OXERA raamwerk onderscheidt een aantal categorieën van kosten en baten (zie hieronder), waarbij zowel de kosten als de baten vanuit *maatschappelijk* welvaartsoogpunt zijn gedefinieerd en niet vanuit individuele partijen. Bijvoorbeeld, de kosten die een individueel bedrijf maakt ter naleving van een bepaalde regulering zijn als maatschappelijke kosten aan te merken (die dan vergeleken worden met de baten van die regulering), maar de baten die het bedrijf kwijt raakt doordat de betreffende regulering de concurrentie versterkt tellen niet als maatschappelijke kosten (integendeel, dit zijn vaak maatschappelijke baten).

In principe zijn alle kosten en baten in monetaire termen uit te drukken, waardoor zij direct met elkaar te vergelijken zijn. Een vergelijking van kosten en baten in de tijd is te maken door middel van verdiscontering tegen een 'maatschappelijke' rentevoet. Hoewel maatschappelijke welvaart het uitgangspunt is voor de analyse, biedt het raamwerk ook ruimte om andere doelstellingen expliciet op te nemen (bijvoorbeeld universele toegang tot diensten of het beschermen van bepaalde groepen consumenten).

Voor een grondige analyse is het van belang de kosten en baten waar mogelijk te kwantificeren. Een beperkende factor is vaak de beschikbaarheid van data. In de economische theorie en praktijk zijn echter methoden en technieken ontwikkeld waarmee het dataprobleem soms kan worden opgelost. In elk geval zijn de mogelijkheden voor kwantificering ruimer dan in de huidige beleidspraktijk in Nederland (en elders) gebruikelijk is.

In veel gevallen is een schatting van ordes van grootte al toereikend; met andere woorden, precisie is niet altijd noodzakelijk (en kan soms misleidend zijn). Het kan zijn dat een bepaalde batencategorie al van dusdanige orde van grootte is dat zij alle mogelijke kosten overstijgt. Voor de andere batencategorieën zou in dat geval een kwalitatieve analyse kunnen volstaan.

Het OXERA rapport maakt een onderscheid tussen drie types markttoezichthouders, namelijk:

- De mededingingsautoriteit;
- Sectorspecifieke toezichthouders in markten waar voorheen een monopoliepositie bestond en waar nu concurrentie is geïntroduceerd (bijvoorbeeld telecom, post, energie); en
- Sectorspecifieke toezichthouders in markten waar zich andere vormen van marktfalen voordoen (met name financiële dienstverlening).

Dit onderscheid is van belang omdat de kosten en baten van deze drie types markttoezichthouders op verschillende wijze te bepalen zijn, zoals hieronder verder staat uitgewerkt.

De Motie Heemskerk heeft betrekking op de kosten en baten van *toezichthouders*. Dit is echter een lastig probleem omdat de kosten en baten van *toezichthouders* nauw verbonden zijn met de kosten en baten van de relevante *wetgeving en regulering*. Toezichthouders bestaan dankzij die wetgeving, en andersom zijn voor naleving van de wetgeving en regulering vaak toezichthouders nodig. Met andere woorden, methodologisch is de vraag ‘wat zijn de kosten en baten van markttoezichthouders?’ nauwelijks los te zien van de vraag ‘wat zijn de kosten en baten van toezicht?’. In de praktijk wordt dan ook meestal geen onderscheid tussen beide vragen gemaakt.

Het OXERA raamwerk tracht echter nauw aan te sluiten bij de Motie Heemskerk en trekt deze vragen daarom uit elkaar door middel van *counterfactual* analyse, waarbij de kosten en baten van een toezichthouder worden gemeten ten opzichte van een alternatieve situatie waarin die toezichthouder niet zou bestaan, maar de onderliggende wetgeving of regulering wel. Ook biedt het OXERA raamwerk de ruimte om een kosten-batenanalyse uit te voeren voor specifieke *instrumenten en besluiten* van een toezichthouder, door middel van ‘incrementele’ analyse.

Categorieën van kosten en baten

De tabel hieronder identificeert de belangrijkste categorieën van kosten en baten. Ofschoon in de praktijk (in Nederland en elders) tot op zeker hoogte met een aantal van deze kosten en baten vaak al impliciet of expliciet rekening wordt gehouden, is een belangrijke bijdrage van dit rapport dat een zo volledig mogelijk overzicht wordt gegeven. Aan de hand van deze tabel zijn voor iedere beleidsanalyse de relevante kosten en baten in kaart te brengen, in eerste instantie op kwalitatieve wijze en vervolgens, waar nodig en mogelijk, op kwantitatieve wijze.

Aan de kostenkant zijn er ten eerste de directe kosten, bestaande uit de administratieve kosten voor de overheid en de nalevingskosten voor het bedrijfsleven. Van groot belang zijn verder de negatieve en positieve marktimpact, aan respectievelijk de kosten en batenzijde. Het gaat hier om de directe economische effecten van de betreffende regulering of toezichthouder op de efficiëntie en de marktwerking. Daarnaast zijn er ook indirecte reguleringskosten en –baten zoals bijvoorbeeld rechts(on)zekerheid en afschrikeffecten.

Belangrijkste categorieën van kosten en baten

Kosten	Baten
Directe administratieve kosten van toezichthouder	
Directe nalevingskosten van bedrijven	
• Nalevingskosten algemeen	
• Kosten voor specifieke onderzoeken	
Economische kosten voor de betreffende markt (negatieve marktimpact)	**Economische baten voor de betreffende markt (positieve marktimpact)**
• Allocatieve inefficiëntie	• Allocatieve efficiëntie
• Productieve inefficiëntie	• Productieve efficiëntie
• Verstoring van marktprikkels (negatief effect op dynamische concurrentie/innovatie)	• Verbeterde dynamische concurrentie/innovatie
• Verminderde productkwaliteit	• Verbeterde productkwaliteit
• Beperking van marktwerking	• Bevordering van marktwerking
Indirecte reguleringskosten	**Indirecte reguleringsbaten**
• Rechtsonzekerheid	• Rechtszekerheid
• Kans op *regulatory capture*	• Afschrikeffecten
	• Verbeterde kwaliteit van regulering
Sociale kosten (indien relevant)	**Sociale baten (indien relevant)**
• Verdelingskosten	• Gelijke inkomensverdeling
• Leveringsonzekerheid	• Leveringszekerheid
• Negatief effect op kwetsbare consumenten	• Positief effect op kwetsbare consumenten
• Andere negatieve externe effecten	• Andere positieve externe effecten

Counterfactual analyse voor de NMa

Welke *counterfactual* het meest geschikt is, zal afhangen van de specifieke beleidsvraag die aan de orde is. Opgemerkt zij dat deze *counterfactuals* niet noodzakelijkerwijs realistische beleidsopties hoeven te zijn; het gaat puur om een gedachte-experiment met als doel de relevante kosten en baten te identificeren.

Voor de NMa valt te denken aan de volgende *counterfactuals*.

- *Geen Mededingingswet (Mw) en geen NMa*—deze *counterfactual* is te vergelijken met de situatie pre-1998 in Nederland (eventueel met aanvullend ingrijpen door de Europese Commissie onder het EG-recht). Door de huidige situatie te vergelijken met deze *counterfactual* zijn de kosten en baten van zowel de Mw als de NMa in kaart te brengen.

- *Wel een Mw maar geen NMa*—in deze *counterfactual* zou handhaving van de Mw niet door de NMa maar alleen civielrechtelijk plaatsvinden. Tot op zekere hoogte is dit te vergelijken met de situatie in de VS waar handhaving van de antitrustwetten voor een significant deel via *private litigation* geschiedt.

Deze laatste *counterfactual* gaat direct in op de vraag: 'wat zijn de kosten en baten van de NMa?' Het OXERA rapport werkt deze *counterfactual* nader uit. In eerste instantie is het van belang om na te gaan hoe effectief het juridische apparaat met de handhaving van de Mw zou kunnen omgaan. De evaluatie door Berenschot (2002) wijst wat dit betreft op een aantal tekortkomingen. Vervolgens is de vraag welke soorten van mededingingsbeperkend gedrag onder civielrechtelijke handhaving aangekaart zouden worden. Ervaring in de VS en elders leert

dat dit vaak geldt voor misbruik van marktmacht en ander gedrag in *business-to-business* markten waar concurrenten en grote afnemers het slachtoffer van zijn, maar zeer waarschijnlijk niet voor gedrag in consumentenmarkten, en ook niet voor fusies en de meeste horizontale prijsafspraken. De baten van de NMa ten opzichte van de *counterfactual* zijn dus met name gerelateerd aan deze laatste soorten van marktgedrag. De onderstaande tabel geeft een overzicht van de belangrijkste kosten van baten van de NMa in deze *counterfactual* analyse.

Kosten en baten NMa ten opzichte van *counterfactual* van civielrechtelijke handhaving

Kosten	Baten
Directe kosten NMa	
• Administratieve kosten NMa • minus administratieve kosten juridische apparaat onder Mw (voor zover hoger dan huidige kosten onder Mw)	
Directe kosten bedrijven	
• Algemene nalevingskosten en kosten gemaakt in kader van specifieke onderzoeken • minus kosten in geval van civielrechtelijke handhaving	
Negatieve marktimpact	**Positieve marktimpact**
• Allocatieve, productieve en dynamische inefficiëntie kunnen gevolg zijn van onbedoelde fouten door NMa (bijvoorbeeld ingrijpen tegen efficiëntieverhogende praktijken of fusies) • minus zulke kosten indien veroorzaakt door besluiten onder civielrechtelijke handhaving	• Allocatieve, productieve en dynamisch efficiëntie als gevolg van ingrijpen tegen kartels en ander mededingingsbeperkend gedrag dat niet zou worden aangekaard onder civielrechtelijke handhaving • Verbeterde productkwaliteit en innovatie door bevordering van competitieve marktomstandigheden
Indirecte kosten	**Indirecte baten**
• Rechtsonzekerheid door open aard van Mw (te beperken door middel van duidelijke richtlijnen door NMa en jurisprudentie in de loop der tijd) • minus rechtsonzekerheid onder civielrechtelijke handhaving	• Actieve handhaving van kartelverbod heeft afschrikeffect op andere kartels • Actieve houding NMa draagt bij aan vorming van 'concurrentiecultuur' in Nederland (in tegenstelling tot 'kartelparadijs')

Counterfactual analyse voor sectorspecifieke toezichthouders

Voor de toezichthouders in voorheen monopolistische markten zijn de volgende *counterfactuals* mogelijk relevant:

- Geen deregulering/privatisering, geen toezichthouder, en geen toepassing Mw;
- Wel deregulering/privatisering, maar geen toezichthouder en ook geen toepassing Mw; en
- Deregulering/privatisering, geen toezichthouder maar wel toepassing Mw.

De eerste *counterfactual* is relevant voor een analyse van de kosten en baten van marktwerking in het algemeen in de betreffende sector (door middel van onder andere deregulering en privatisering). De tweede *counterfactual* leidt tot een analyse van de kosten en baten van toezicht in het algemeen in de sector, of dit nu door een specifieke toezichthouder of door de NMa (onder de Mw) geschiedt.

De derde *counterfactual* gaat direct in op de kosten en baten van de sectorspecifieke toezichthouder. In afwezigheid van deze instantie zou toezicht mogelijk kunnen terugvallen op de NMa en de Mw. De vragen die in een dergelijke analyse aan de orde komen zijn, onder andere:

- Wat zijn de institutionele voordelen van een sectorspecifieke toezichthouder ten opzichte van de NMa (bijvoorbeeld, sectorspecifieke kennis en een meer pro-actieve houding)?

- Zijn er bepaalde vormen van marktfalen of doelstellingen waar de NMa zich niet direct op richt (bijvoorbeeld universele toegang en bescherming van kwetsbare consumenten)?

- Welke vormen van mededingingsbeperkende praktijken zijn effectiever ex ante aan te pakken door een sectortoezichthouder?

Het rapport gaat voornamelijk in op deze laatste vraag. Hierbij komt naar voren dat sectortoezichthouders bepaalde instrumenten hebben waarover de NMa niet in dezelfde mate beschikt, zoals bijvoorbeeld in het geval van OPTA het op kunnen leggen van een gescheiden boekhouding en het regelmatig verzamelen van bepaalde informatie.[3] Verder is een belangrijke beleidskwestie of toezicht door de NMa onder het mededingingsrecht effectief zou zijn in het tegengaan van buitensporig hoge prijzen door (voormalige) monopolisten en in het afdwingen van toegang tot *bottleneck* infrastructuur tegen redelijke condities. In principe biedt het mededingingsrecht hier mogelijkheden toe, maar of dit effectiever is dan sectorspecifiek ex ante toezicht blijft een open vraag.

De tabel hieronder geeft een overzicht van de belangrijkste kosten en baten van toezichthouders in voorheen monopolistische markten ten opzichte van de NMa *counterfactual*.

[3] Andersom zijn er ook instrumenten waarover de NMa wel en de sectortoezichthouders niet beschikken, maar dit is niet direct relevant voor bovenstaande *counterfactual* analyse.

Belangrijkste kosten en baten van toezichthouders in voorheen monopolistische markten, ten opzichte van de NMa *counterfactual*

Kosten	Baten
Directe kosten toezichthouder	
• Administratieve kosten toezichthouder • minus mogelijke extra kosten voor NMa voor toezicht op betreffende markt onder Mw	
Directe kosten bedrijven	
• Algemene nalevingskosten en kosten gemaakt in kader van specifieke onderzoeken • minus (extra) kosten voor naleving Mw	
Negatieve marktimpact	**Positieve marktimpact**
• Allocatieve, productieve en dynamische inefficiëntie kunnen het gevolg zijn van onbedoelde fouten door toezichthouder (bijvoorbeeld het opleggen tariefregulering waar concurrentie mogelijk is, zou toetredingsprikkels weg kunnen nemen)	• Allocatieve, productieve en dynamisch efficiëntie verbeterd door ex ante preventie van mededingingsbeperkend gedrag dat mogelijkerwijs minder effectief bestreden zou worden onder Mw (bijvoorbeeld buitensporige tarieven en netwerktoegang) • Allocatieve, productieve en dynamisch efficiëntie verbeterd door actievere promotie van concurrentie gedurende transitie van monopolie naar mededinging (bijvoorbeeld door strengere informatieverplichtingen of tijdelijke assistentie aan toetreders) • Verhoogde productkwaliteit door directe regulering die niet onder Mw zou plaatsvinden
Indirecte reguleringskosten	**Indirecte reguleringsbaten**
• Continue interactie tussen toezichthouder en voormalige monopolist zou kunnen leiden tot *regulatory capture* • Aanwezigheid van veel ingrijpende toezichthouder zou innovatiecultuur in sector kunnen belemmeren	• Continu monitoren en informatie verzamelen door toezichthouder betekent dat problemen eerder geïdentificeerd kunnen worden en ingrijpen spoediger kan geschieden • Continu monitoren en informatie verzamelen door toezichthouder betekent dat expertise wordt opgebouwd en daardoor kwaliteit van regulering kan toenemen • Ex ante regulering biedt vaak grotere rechtszekerheid dan Mw (tenzij regels vaak worden gewijzigd)
	Sociale baten
	• Toezichthouder richt zich ook op ander doelstellingen dan NMa, bijvoorbeeld leveringszekerheid en bescherming van kwetsbare consumenten

Voor de overige sectorspecifieke toezichthouders, met name AFM, kunnen deze *counterfactuals* ook worden toegepast. Bij AFM zal echter al eerder blijken dat in de NMa *counterfactual* weinig verschil bestaat ten opzichte van de huidige situatie. Dat wil zeggen, de AFM richt zich op vormen van marktfalen die de NMa niet direct bestrijdt met de bevoegdheden die zij heeft onder de Mw. Het gaat hier met name om externaliteiten en asymmetrische informatie tussen vragers en aanbieders, die er toe kunnen leiden dat in afwezigheid van regulering sommige van deze markten nauwelijks zouden functioneren. De baten van deze toezichthouder zijn dan ook voornamelijk gerelateerd aan het bestrijden van deze vormen van marktfalen. Andersom zij echter opgemerkt dat, juist omdat de regulering van financiële dienstverlening zich in Nederland en elders traditioneel op deze vormen marktfalen heeft gericht, de bevordering van effectieve mededinging vaak minder aandacht heeft gekregen.

Illustratieve toepassing op NMa en OPTA

Deel II van het OXERA rapport bevat een toepassing van het raamwerk op bepaalde kosten en baten van de NMa en OPTA. Zoals hierboven is aangegeven gaat het niet om een volledige toepassing van het raamwerk op beide toezichthouders maar slechts om een aantal illustratieve casussen. De selectie van casussen is met name bepaald door de (beperkte) beschikbaarheid van openbare informatiebronnen. Ook was een toepassing van de meer geavanceerde technieken die staan beschreven in het rapport niet mogelijk binnen het tijdsbestek van deze studie.

De belangrijkste conclusies uit deze toepassingen zijn als volgt:

- Voor zowel de NMa als OPTA zijn de directe kosten voor overheid en bedrijfsleven goed in kaart te brengen. Voor OPTA heeft OXERA hiertoe een questionnaire uitgestuurd naar telecommunicatiebedrijven waarmee informatie is verkregen over nalevingskosten;

- Voor de NMa heeft OXERA de welvaartseffecten van twee besluiten gekwantificeerd, namelijk de garnalenkartelzaak (2003) en de fusie tussen Nuon en Reliant (2003). Voor de garnalenzaak heeft OXERA een econometrische analyse uitgevoerd om de hoeveelheidseffecten te meten. Voor de fusiezaak bestonden al modellen die de prijseffecten van de fusie hebben laten zien; OXERA heeft deze gebruikt voor een relatief eenvoudige welvaartsberekening. Ook beschrijft OXERA op kwalitatieve wijze de welvaartseffecten van de mobiele-termineringszaak (2003), waaraan zowel de NMa als OPTA hebben gewerkt.

- Voor OPTA heeft OXERA een analyse uitgevoerd van de effecten van de belangrijkste maatregelen op het gebied van vaste telefonie. In eerste instantie is gekeken naar een groot aantal marktindicatoren. Vervolgens is een analyse uitgevoerd naar het effect van regulering op het marktrisico (beta) van KPN. Ten slotte is op grond van bestaande parameters en eenvoudige veronderstellingen een inschatting gemaakt van het welvaartseffect van de KPN *price cap*.

Deze toepassingen bieden al enig inzicht (onder voorbehoud) in de ordes van grootte van sommige kosten en baten. De jaarlijkse directe kosten van de NMa bedragen ongeveer €22 miljoen voor de overheid en €30 miljoen–€48 miljoen voor het bedrijfsleven. Voor OPTA is dit, respectievelijk, ongeveer €18 miljoen voor overheid en tussen €50 miljoen en €70 miljoen voor het bedrijfsleven.

Een ruwe schatting duidt er op dat het ingrijpen door de NMa in de garnalenzaak heeft geleid tot een toename in allocatieve efficiëntie van €1,2 miljoen en een herverdeling van surplus van producenten naar consumenten ter grootte van €0,7 miljoen–€6,1 miljoen (beide op jaarbasis). Voor de fusiezaak bedragen de beide jaarlijkse effecten tussen €1.5 miljoen en €8 miljoen (allocatieve winst) en €275 miljoen–€600 miljoen (herverdelingseffect).

Ingrijpen door OPTA in de markt voor vaste telefonie—onder andere door het opleggen van toegangsverplichtingen en tariefregulering—lijkt positieve effecten te hebben gehad op de concurrentie en consumenten. Kwantificering van de baten van de *price cap* hangt sterk af van de prijselasticiteit van de vraag naar KPN's diensten (het is dan ook van belang om goede schattingen van deze elasticiteit te maken). Een van de scenario's die OXERA heeft berekend duidt er op dat de *price cap* een allocatieve baat oplevert van ongeveer €270 miljoen per jaar, terwijl het herverdelingseffect (van producenten naar consumenten) rond de €750 miljoen per jaar zou kunnen bedragen.

Contents

1. Introduction

1.1 Scope of the OXERA report

The Dutch Ministry of Economic Affairs (MEA) has commissioned OXERA to develop a framework for assessing the costs and benefits of 'market regulators' (markttoezichthouders), which in this context is taken to include the competition authority and sector regulators.[4] This report, presented in two parts, contains the conceptual framework (Part I) as well as a provisional, illustrative application of the framework to the Dutch Competition Authority (Nederlandse Mededingingsautoriteit, NMa) and the Independent Postal and Telecommunications Authority (Onafhankelijke Post en Telecommunicatie Autoriteit, OPTA) (Part II).

The need for such a framework has its origins in the Dutch Parliament's assessment of the 2004 budget for the MEA, during which the 'Heemskerk motion' on regulation was adopted.[5] Through this motion, the Parliament stated the need for a clear and uniform view on the tasks and responsibilities of market regulators, as well as on their relationships with each other and with the central government. The Parliament has raised some questions regarding the current positioning and functioning of the various regulators, which have grown in number over the past years. The MEA submitted a first response to the Heemskerk motion on June 18th (MEA 2004).

The MEA's objective is to use the cost–benefit framework to:

- gain more insight into the social costs and benefits of market regulators, which currently include:
  - the NMa;
  - OPTA;
  - the Financial Markets Authority (Autoriteit Financiële Markten, AFM);
  - the Office of Energy Regulation (Dienst Toezicht Energie, DTe);
  - the Transport Chamber (Vervoerkamer); and
  - the forthcoming Healthcare Authority (Zorgautoriteit in oprichting).
- make policy recommendations on the institutional set-up; and
- ultimately, determine in a more informed way whether supervision is needed and how it can be designed in the most effective and efficient manner.

The framework presented here aims to meet these objectives by proposing an approach that is robust and quantitative, but at the same time is practical and easy to apply. The framework will allow the user to ask the right questions as a starting point for any cost–benefit analysis (CBA). The framework makes explicit which 'counterfactual' situation the costs and benefits should be assessed against, and which main categories of costs and benefits one should include. The framework indicates that quantitative analysis should be undertaken where feasible in order to obtain robust results, but this analysis should establish rough orders of magnitude of the various costs and benefits, rather than seek (often spurious) precision in the calculation.

[4] For the purpose of this study, 'market regulators' excludes government bodies in charge of regulations that do not concern the functioning of markets and market outcomes directly (for example, health and safety, food standards, and solvency regulations), although such regulations may well have an indirect impact on market functioning.

[5] Motie-Heemskerk c.s.—Tweede Kamer, vergaderjaar 2003-2004, 29 200 XIII, nr. 5.

The framework attempts to indicate in as much detail as possible how CBA can be applied to particular policy questions, and the illustrative applications to NMa and OPTA presented in the report provide some further guidance. However, many future policy questions in the Netherlands are likely to be highly specific, and in these cases the general framework would have to be worked out in much greater detail than is provided in this report.

The OXERA framework and its illustrative application to the NMa and OPTA in Part II of this report are not in any way intended to duplicate or replicate the regulatory evaluations that have taken place in other contexts. For example, in recent years in-depth evaluations have been undertaken by external reviewers of both the NMa and OPTA.[6] Furthermore, in 2002, the MEA published an extensive report containing a framework for assessing policy options in the area of network industries (MEA 2002). The regulators themselves are also undertaking various initiatives in relation to CBA—for example, OXERA has been informed that:

- the NMa has performed several internal studies assessing the benefits of ex post interventions;[7]
- OPTA is looking into ways to perform quantitative assessments of costs and benefits of specific decisions, as required under the new Telecommunications Act;[8] and
- AFM has already developed (although not yet finalised) a detailed framework for assessing the incremental costs and benefits of new instruments of decisions (AFM 2004).

The intention is for the OXERA framework to be complementary to these other initiatives. It allows for a broader assessment than the examples mentioned above. Nevertheless, the framework has been designed such that (parts of) it can also readily be used in those other contexts.

1.2 Structure of the report

The results of the OXERA analysis are presented in two parts: Part I contains the conceptual framework, and Part II contains practical applications and appendices. The remainder of Part 1 is structured as follows.

- Section 2 discusses the main principles on which the OXERA CBA framework is based, including the types of market regulator to which the framework applies; the distinction between CBA for *regulation*, *regulators* and regulatory *instruments/decisions*; and an explanation of why counterfactual and incremental analysis needs to be undertaken.

- Section 3 gives an overview and description of the main categories of costs and benefits that need to be considered in any CBA; these include direct costs, market impact costs and benefits, and indirect costs and benefits.

- Section 4 then develops the framework for application to the costs and benefits of the three types of market regulator—ie, the competition authority, the regulators in previously monopolistic markets, and the other sector regulators. This section sets out how the relevant counterfactuals can be defined and how the relevant costs and benefits can subsequently be identified.

[6] A major evaluation of the NMa took place in 2001/02, the results of which are brought together in Berenschot (2002). The last evaluation of OPTA took place in 2000/01, see Twijnstra Gudde (2001). A new evaluation of OPTA is scheduled to commence later this year and to be completed in 2005.

[7] See, for example, van Bergeijk and Verkoulen (2003) and Postema, Göppelroder and van Bergeijk (2004).

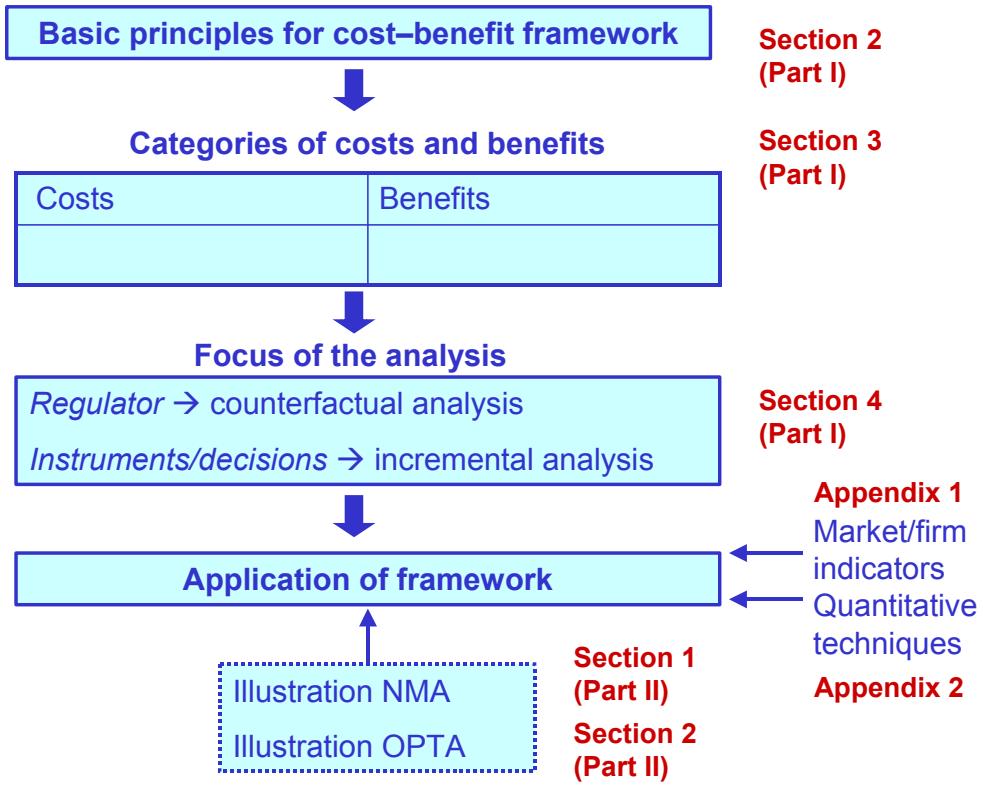
[8] The Telecommunications Act 1998 was amended in April 2004. One of the new provisions, Article 1.3(4), states that OPTA decisions need to be justified on a qualitative and, where feasible, quantitative basis.

Part II of the report is structured as follows:

- Sections 1 and 2 contain illustrations of how the CBA framework can be applied to the NMa and OPTA, respectively.
- Appendices 1 and 2 provide practical guidance on the analytical tools that can be used when applying the framework. Appendix 1 (Part II) gives an overview of how the CBA can identify and classify the relevant market characteristics (market structure and market failures) that will often have an impact on costs and benefits. Appendix 2 (Part II) gives an overview of a range of quantitative techniques that may be used when applying the cost–benefit framework.
- Appendix 3 (Part II) contains the text of the compliance cost questionnaire that OXERA sent out to firms as part of the illustrative application of the CBA framework to OPTA.
- Finally, a list of references is provided at the end of Parts I and II the report.

An overview of this structure is given in Figure 1.1.

Figure 1.1: Structure of the cost–benefit framework presented in this report



2. Basic Principles of the Cost–Benefit Framework

2.1 Types of market regulators to which the framework applies

As noted above, the framework is applicable to market regulators. However, it is important to distinguish between three types of market regulator, as illustrated (in a highly stylised way) in Table 2.1.

Table 2.1: Stylised description of types of market regulator

Type of market regulator	Sector coverage	Main monopoly/ competition problems typically addressed	Other market failures/objectives typically addressed
Competition authority	All sectors[1]	Cartels Excessive pricing (ex post) Anti-competitive behaviour (ex post) Mergers (ex ante)	None (with minor exceptions)[2]
Sector regulators in previously monopolistic markets	Specific regulators for telecommunications; postal services; energy; some transport sectors; healthcare to some extent	Monopoly pricing (ex ante) Anti-competitive behaviour (ex ante) Lack of effective competition	Distributive issues Security/quality of supply Consumer protection (asymmetric information) Functioning of markets
Sector regulators in industries where market failures arise otherwise	Specific regulators for financial services; healthcare; some transport sectors	Anti-competitive behaviour (ex ante) Lack of effective competition	Distributive issues Security/quality of supply Consumer protection (asymmetric information) Functioning of markets

Notes: [1] In some countries certain industries or activities may be excluded from the application of competition law. In the Netherlands and other EU Member States, this is of particular relevance to so-called services of general interest. [2] A generally accepted view is that competition policy should be primarily concerned with economic welfare rather than with other goals such as distribution of economic power or protection of small businesses. The NMa may sometimes take other social interests into consideration. For example, in the past it has taken into account environmental concerns when dealing with an exemption to the prohibition of agreement in Article 6 of the Competition Law 1998. See Slot et al (2002), section 2.7. Some competition authorities also have consumer protection as an objective.

First, there is a distinction between the competition authority (NMa) and the sector regulators. In principle, the NMa can cover all sectors in the economy. Legal intervention is made on an ex post basis—ie, investigation of practices that are alleged to have taken place, although the NMa also reviews mergers and notified agreements ex ante (ie, before they take effect). The NMa is primarily concerned with competition and efficiency considerations, and not (or only to a lesser extent) with other market failures or social objectives.

In contrast, the coverage of sector regulators is more limited (although sectors such as telecommunications and financial services consist of a wide variety of markets) and they mostly intervene by setting rules ex ante. Furthermore, sector regulators are concerned with market failures and social objectives other than the promotion of competition, which may sometimes require trade-offs to be made (eg, more competition versus more socially desirable income distribution).[9]

[9] As discussed further in section 2.4 below, this framework for cost–benefit analysis takes these objectives, as defined in the legislation, as given. In principle, the different costs and benefits can be assessed in the context of any policy objective. Nevertheless,

Second, there is a difference between sector regulators in recently liberalised network industries and regulators in markets where market failures may occur otherwise. The former are (or used to be) characterised by natural monopoly in some parts of the vertical chain and the main task of the sector regulator is to ensure the smooth transition from monopoly to competition. The clearest examples are fixed telephony, postal services, gas, electricity and some transport sectors (rail, airports).

The other markets have more diverse reasons for regulation, particularly those presented below.

- Financial services are characterised by market failures such as systemic risk and asymmetric information that may hinder markets from functioning properly in the first place (even in the absence of an apparent competition problem). Sector regulation focuses primarily on dealing with these market failures, although this is not to say that competition and competition policy do not have an important role to play in these markets (see sections 2.2 and 4.5).

- Healthcare services have only recently been opened up to competition, and there is a perceived need to ensure that competition does indeed develop effectively. At the same time social objectives, such as fair and timely access to services and quality of supply, remain essential.

It is important to make these distinctions, since they can lead to different approaches to the assessment of costs and benefits of the various market regulators. In particular, this assessment requires a different type of counterfactual analysis, as discussed below.

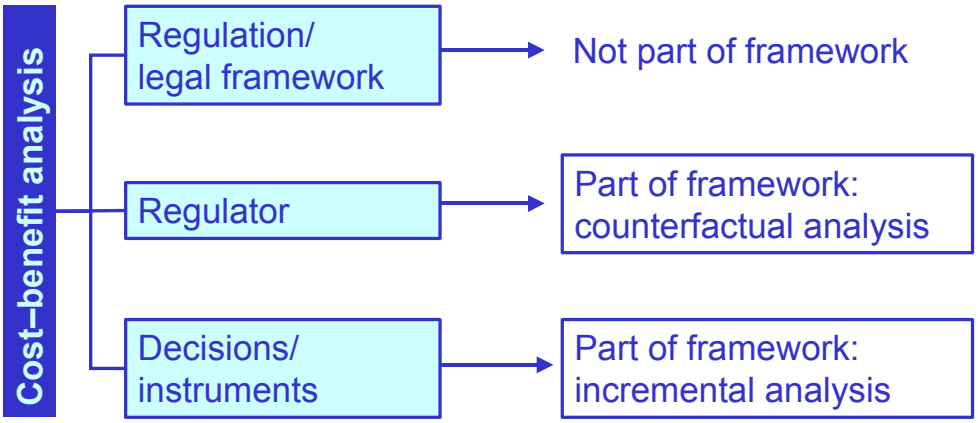
2.2 *Regulators* versus *regulation*: the relevant counterfactual

2.2.1 Different types of cost–benefit analysis

The question at the centre of the Heemskerk motion—what are the costs and benefits of the institutional set-up with a competition authority and sector regulators?—immediately raises a methodological difficulty. This is because the issue of costs and benefits of *regulators* (including the competition authority) is intrinsically linked to the costs and benefits of *regulation* (including the competition law) itself. After all, regulators usually exist only by virtue of an underlying legal/regulatory framework and a legal/regulatory framework usually needs to be enforced by a regulator (or other institution) in order to be meaningful. Furthermore, the costs and benefits of *regulators* must be assessed in conjunction with the costs and benefits of specific *decisions* or *instruments* used by that regulator. These relationships are illustrated in Figure 2.1.

given that the framework focuses on market regulators, the emphasis will be on the costs and benefits in relation to market functioning rather than on social objectives.

Figure 2.1: Different types of costs and benefits



The issue of costs and benefits of *regulation* has been expressly excluded from the scope of this framework. This means that the framework does not directly address some important questions that are also closely associated with the issue of costs and benefits of *regulators*, such as: What are the social benefits of competition policy? Does the telecommunications industry require sector-specific regulation? or Should sector regulators have powers to apply the general competition rules in their industry?[10] Some of these questions have been addressed in the first submission by the MEA to Parliament (referred to above) and in a literature survey commissioned previously by the MEA (SEOR/ECRI 2004).

The present framework instead focuses mainly on the costs and benefits of *regulators* and of their specific *decisions* and *instruments*. To separate out, in a meaningful way, these costs and benefits from those of *regulation* itself, it is important to take the relevant *counterfactual* as a starting point. In principle there are many such counterfactuals and they can all be assessed using the framework, but only the most relevant are considered in greater detail here. These counterfactuals are not necessarily realistic policy alternatives. They only serve as a thought experiment to pinpoint the costs and benefits of the relevant 'increment'. (In this case *having* versus *not having* the regulator.)

2.2.2 Counterfactuals for the competition authority

For the competition authority, there are two potentially relevant counterfactuals (the most appropriate of which will depend on the precise policy question being addressed).

- *No Competition Law 1998 and hence no NMa*—the costs and benefits of the NMa would be assessed against a situation in which the Competition Law was not enacted and hence the NMa would not have been created. This would basically be the situation pre-1998 when the previous Economic Competition Law 1956 was in place, enforced by the MEA. The former regime was generally seen as less strict and relatively inactive. In this counterfactual some reliance might also be placed on intervention by the European Commission under the EC competition rules.

- *A Competition Law 1998 but no NMa*—the costs and benefits of the NMa would be assessed against a situation in which the Competition Law was not enforced by a competition authority but rather through private litigation. This would to some extent be comparable to the situation in the USA, where around 90% of all federal antitrust cases originate from

[10] Such 'concurrent' powers exist in the UK, where some of the sector regulators can apply the Competition Act 1998 directly.

private actions (Jones 1999).[11] The Competition Law does indeed create the possibility of private litigation through the civil courts, although thus far this enforcement has not been very effective (see Berenschot 2002, section 5).

The first counterfactual would lead to an analysis of the costs and benefits of both *competition law* and the *competition authority*. The second counterfactual is of greater direct relevance to the question at hand, as it allows an assessment of the costs and benefits of having the NMa as an institution (ie, the pure costs and benefits of the *regulator*). The emphasis in this framework will therefore be on the second of the two counterfactuals, even though it can also be applied to the first.

Several variations on these two counterfactuals might be thought of, and the analysis can easily be adjusted to apply the framework to these other counterfactuals as well. Examples include having an NMa with powers different from the ones it has currently (eg, powers to carry out market investigations as in the UK), or absence of a competition law with a fallback on EC rules and enforcement by the European Commission and European courts.

2.2.3 Counterfactuals for sector regulators in previously monopolistic markets

For the sector regulators in previously monopolistic markets (telecommunications, postal services, energy and some transport sectors), the most relevant possible counterfactuals are:

- no deregulation or privatisation, and no sector regulator or application of general competition rules;
- privatisation and deregulation, and no sector regulator or application of general competition rules; and
- privatisation and deregulation, and no sector regulator, but with application of general competition rules.

The first counterfactual would allow an analysis of the costs and benefits of deregulation/privatisation more broadly, and hence would be one step removed from the assessment of costs and benefits of *regulators* specifically.

The second is informative about the costs and benefits of having some form of supervision in deregulated/privatised markets, whether through a sector-specific regulator or the competition authority.

The third is most directly targeted at the central question for this study—ie, the costs and benefits of having the sector-specific regulator versus leaving market supervision to the competition authority. The emphasis in this framework will therefore be on this third counterfactual, even though it can in principle also be applied to the first two. Again, several variations on these counterfactuals are possible, and these could be accommodated in the same framework.

2.2.4 Counterfactuals for other sector regulators

For the sector regulators in industries where competition is introduced or where market failures arise otherwise, the most relevant counterfactuals are:

- no sector regulator, or application of general competition rules;
- no sector regulator, but with application of general competition rules.

[11] Part of these private cases (5–10%; Roach and Trebilcock 1997) follow on from publicly enforced cases—ie, where affected private parties claim damages from a perpetrator which has previously been found guilty by one of the competition agencies. The 90% figure therefore understates the importance of public enforcement to some extent.

The first of these is informative about the costs and benefits of having some form of market supervision in these sectors, whether through a sector-specific regulator or the competition authority. The second is most directly targeted at the central question for this study—ie, the costs and benefits of having the sector-specific regulator versus leaving market supervision to the competition authority. The emphasis in this framework will therefore be on this second counterfactual.

A third counterfactual in these markets might be self-regulation. This can be a useful tool to address certain market failures with little or no state intervention (only a credible threat of government intervention may be needed). It may be more flexible, cheaper and more effective, and makes use of the expertise of the suppliers in the market and their desire to maintain their reputation. Self-regulation is frequently used, for example, in the financial services industry to address issues such as asymmetric information and consumer protection.

However, self-regulation is unlikely to address more serious competition and monopoly problems. In addition, there is a risk that self-interest can take precedence over public interest and that self-regulatory schemes may create barriers against those wanting to enter a market. It is therefore not a fully effective substitute for regulation and hence a less relevant counterfactual.

All of the counterfactuals discussed in this sub-section are explored in greater detail in section 4.

2.3 *Regulators* versus *instruments/decisions*: incremental analysis

As discussed above, the approach of the OXERA framework is to assess the costs and benefits of *regulators* versus *regulation* by taking the absence of that regulator as the counterfactual. Another, economic way of describing this is to say that the framework determines the *incremental* costs of the regulator, where the presence/creation of the regulator is considered as the relevant increment.

The principle of incremental costs and benefits can be even more directly applied when considering the costs and benefits of specific *regulatory instruments and decisions* versus those of the *regulator*. Incremental analysis means that only the costs and benefits that are attributable to the instrument or decision in question should be considered.

Furthermore, the framework can be applied either to individual instruments and decisions or to a *cumulative* set of instruments and decisions, depending on how the relevant increment is defined. Both these applications are of relevance to the issues raised by the Heemskerk motion.

In the long run, the sum of the costs and benefits of each *regulatory instrument and decision* should tend towards convergence with the costs and benefits of the *regulator* in question. After all, in the long run, most costs and benefits become variable. In the short run, however (eg, in any given year), there are certain costs and benefits of the regulator that are not directly attributable to specific instruments or decisions, but rather form 'fixed' costs and benefits for that year.

In addition, an assessment of the incremental costs and benefits of a specific *decision* could in theory allow for some conclusions to be drawn on the costs and benefits of the *regulator*. For example, the orders of magnitude of benefits of a certain regulatory action (eg, an intervention by the NMa against a price-fixing cartel) may already be so high as to outweigh all the 'fixed' costs of the regulator in the particular year.

The above issues are further developed in this report.

Incremental CBA of specific instruments and decisions is already embedded in several of the regulatory frameworks that are of relevance here—for example, the frameworks for AFM and OPTA (as mentioned above). These frameworks can also be highly specific since they depend on the precise regulatory objectives that have been set out, which can vary across sectors. It is therefore beyond the scope of this study to develop a specific framework for assessing instruments/decisions for each of the market regulators. Rather, the OXERA framework gives a number of general principles and techniques that can also be used for CBA of specific instruments/decisions.

2.4 Other relevant principles

2.4.1 Welfare analysis

CBA is distinctive in that it is an *economic* framework in which there is an attempt to measure the relevant effects with a common metric, *monetary value*, and to take account of the *timing* of effects. Other techniques, such as cost-effectiveness analysis, do not have these characteristics (see also below under sub-section 2.4.4).

CBA employs discount factors to bring forward or put back the monetary value of effects in time (economists refer to this as the time value of money) to a common base year, thus calculating a net present value (NPV). A decision on the appropriate discount rate needs to be taken. For policy analysis, the 'social time preference rate' is often used for this purpose. Social time preference is defined as the value society attaches to present, as opposed to future, consumption. The social time preference rate is based on comparisons of utility across different points in time or different generations. It has two components:

- the rate at which individuals discount future consumption over present consumption, on the assumption that no change in per-capita consumption is expected; and
- an additional element which is relevant if per-capita consumption is expected to grow over time, reflecting the fact that these circumstances imply that future consumption will be plentiful relative to the current position and thus have lower marginal utility. This effect is represented by the product of, first, the annual growth in per-capita consumption, and second, the elasticity of marginal utility of consumption with respect to utility.[12]

In the UK the social time preference rate often used for public policy is 3.5%, although in other countries this tends to be higher.[13]

The words 'attempt to measure', used above, are important to bear in mind here. It will not always be practical, nor indeed socially desirable, to express all effects and objectives in monetary terms. However, thinking about costs and benefits in monetary terms does form the basic principle for the economic analysis.

2.4.2 Economic welfare versus social objectives

The cost–benefit framework applies to *market* regulators—ie, those charged with the responsibility to ensure efficient market functioning and deal with market failures. Therefore, the costs and benefits considered in the framework are primarily assessed against the benchmark of economic welfare or efficiency.

It has been well established that markets tend to lead to efficient outcomes and hence greater economic welfare (unless there are serious market failures, see below). However, it is equally

[12] For a more detailed explanation of the social time preference rate, see OXERA (2002).
[13] See HM Treasury (2003), Annex 6. This UK figure is largely based on OXERA (2002).

acknowledged that markets may not lead to other socially desirable outcomes such as fair income distribution or universal access to basic services. These social objectives often play a role in industries with a sector regulator—for example, universal access in telecommunications and postal services, and protection of vulnerable customers in financial services.

In principle, these other objectives can be accommodated in the framework. However, it is generally difficult to assign monetary values to them. For example, is €1 of consumer benefit worth the same as, or more than, a €1 cost to producers? A strong consumer-protection objective may call for some form of weighting mechanism that would give greater weight to consumer interest. A related issue is how to take account of the interests of different groups of consumer or producer (eg, low- versus high-income consumers).

The framework presented here allows trade-offs between different goals to be made explicit by identifying, assessing, and, where possible, quantifying them, and then comparing the costs with the benefits (see section 3 for more detail). For example, a measure taken to achieve the social objective of security of supply in the energy sector may have adverse consequences for productive efficiency, and the framework allows these benefits and costs to be weighed against each other.

Furthermore, social goals do not always conflict with economic welfare. In many circumstances they work in the same direction. For example, protecting the rights of vulnerable consumers (a social objective) may contribute to economic welfare if it allows the market to function in the first place.

Even within the category of economic welfare, there can be conflicting objectives. An example is the trade-off that often needs to be made between static and dynamic efficiency. For example, imposing a price cap may improve allocative efficiency in the short term, but reduce incentives to invest, and hence worsen dynamic efficiency, in the longer term. The framework helps to make these trade-offs explicit.

These issues are discussed further in section 3.

2.4.3 Cost–benefit analysis versus cost-effectiveness analysis

The framework allows for a comparison of costs and benefits. It does not seek to identify the policy that maximises the total benefits net of costs. This has important implications for the conclusions that can be drawn from the analysis. For example, a policy such as having a competition authority that actively prosecutes price-fixing cartels may bring benefits of such high orders of magnitude that they are likely to outweigh any costs. The conclusion would be that having the competition authority is beneficial to economic welfare, but it cannot be concluded that economic welfare has been maximised. This is because, for example, the competition authority may not have been set up with minimal costs, or it may also take different types of actions that have more costs than benefits.

Assessing whether costs have been minimised requires a different approach, referred to as cost-effectiveness analysis. This provides an index of the relative cost of options for promoting a particular policy objective. Cost-effectiveness analysis is appropriate where the regulator specifies an objective below which it is not willing to trade off other objectives. In contrast with formal CBA, no attempt needs to be made to place a monetary value on the benefits (see, for example, Jones-Lee 1998).

2.4.4 Robustness and precision of the analysis

As mentioned in section 1, the framework presented here aims to take an approach that is robust and quantitative, and at the same time practical and easy to apply. This means that quantitative analysis

should be undertaken where feasible in order to obtain robust results, but this analysis should establish rough orders of magnitude of the various costs and benefits, rather than seek (often spurious) precision in the calculation.

This framework presents a range of quantitative techniques that can be used for the CBA (see Appendix 2 of Part II), and these vary in terms of levels of sophistication. The optimal degree of quantification of the costs and benefits will depend on the circumstances. For example, if the policy decision in question constitutes a significant but uncertain change to the regulatory environment, and sufficient time and resources are available, there seems to be scope for a highly sophisticated CBA. If the policy decision produces only a minor change, a more limited exercise may be appropriate.

Another limiting factor for quantitative analysis is data availability. Not all costs and benefits can be readily quantified, either because of a lack of data or because the effects depend on various indirect economic interactions which are difficult to measure. For example, data on prices in the market may not be available, or price effects cannot be easily assessed because they are influenced by a range of factors in addition to the regulatory decision in question. In the latter case, an economic model of all the influences on price might be required.[14]

Nevertheless, in practice, the assessment of rough orders of magnitude can often be sufficient to obtain robust insight into the costs and benefits of the policy decision in question. This is because there may be one particular category of benefit (or cost) that far outweighs any of the categories of costs (benefits). In this case, it will not be necessary to quantify those costs with a high degree of precision, and it may be sufficient to describe the other benefits in qualitative terms.

To give an example, the static welfare benefits of intervening in a cartel case—a fall in deadweight welfare loss due to lower prices and higher output—will often be so high that they exceed the direct cost incurred by the competition authority by multiple orders of magnitude.[15] These direct costs therefore do not need to be calculated precisely, as this will not alter the conclusion that the benefits outweigh the costs. Likewise, the other benefits of the intervention—such as the enhancement of dynamic competition or the deterrent effects on other cartels—can be described in qualitative terms only, because they work in the same direction and thus reinforce the conclusion.[16]

In any event, it is always important to perform a sensitivity test of the results. This involves altering the main assumptions in the analysis to determine the extent to which the results are dependent on those assumptions. To have confidence in the appropriateness of a particular regulation, it should be possible to demonstrate a positive outcome under most scenarios tested.

[14] Comprehensive data collection on a regular basis is an essential tool for regulators to function effectively. This allows market monitoring and, as and when needed, more timely intervention.

[15] Cartel cases are relatively straightforward because 'hardcore' horizontal price-fixing cartels are normally unambiguously detrimental to economic welfare (which is why they are banned per se). The analysis becomes more complicated with other types of competition policy interventions, including mergers, other agreements and abuse-of-dominance cases, where offsetting efficiencies are often involved and therefore intervention may have economic costs as well as benefits. See sections 3 and 4.

[16] For a practical example of a CBA where quantification of rough orders of magnitude of only some categories of costs and benefits was sufficient to draw firm conclusions, see OXERA (2003b).

3. Main Categories of Costs and Benefits

3.1 Overview of main categories

Table 3.1 gives an overview of the main categories of costs and benefits that must be assessed. As discussed in section 2, these same categories are of relevance whether the CBA refers to *regulation*, *regulators* or *regulatory instruments/decisions*. They are also of relevance to each of the three types of market regulator identified in section 2 (competition authority, sector regulators in deregulated/privatised industries and other sector regulators). The main difference will lie in the counterfactual or increment against which these specific categories of costs and benefits are measured.[17]

Table 3.1: Main categories of costs and benefits

Costs	Benefits
Direct costs of market regulator	
Direct costs of regulated firms	
• Regulatory compliance costs	
• Costs of specific regulatory proceedings	
Economic costs to the market in question (negative market impacts)	**Economic benefits to the market in question (positive market impacts)**
• Allocative inefficiency	• Allocative efficiency
• Productive inefficiency	• Productive efficiency
• Distortion of incentives (reduced dynamic competition/innovation)	• Enhanced dynamic competition/innovation
• Reduced product/service quality	• Increased product/service quality
• Restriction on market functioning	• Enhanced market functioning
Indirect regulatory costs	**Indirect regulatory benefits**
• Regulatory uncertainty	• Regulatory certainty
• Likelihood of regulatory capture	• Deterrent effects
	• Improved quality of regulation
Social costs (if relevant)	**Social benefits (if relevant)**
• Distributive costs	• Distributive benefits
• Reduced security/quality of supply	• Enhanced security/quality of supply
• Negative effect on vulnerable customers	• Positive effect on vulnerable customers
• Other negative externalities on society	• Other positive externalities on society

3.2 Description of the categories

3.2.1 Direct (administrative) costs of the market regulator

In general, the direct administrative costs of the market regulator are easy to measure as they are usually transparent in the annual reports.

Direct-cost measurement may be somewhat more difficult in relation to a CBA of *specific* regulatory instruments or decisions. The relevant direct costs should only be the additional

[17] For example, to assess the costs and benefits of a regulator, the category of 'direct costs of the market regulator' needs to cover its entire budget. To assess a specific decision by that regulator, the category only covers the costs incurred by the regulator in relation to that decision.

resources used for the regulation. For example, this includes the amount of extra staff, IT resources, etc. These costs may not just arise in one division or team, but across the regulatory body (eg, in policy-making, supervision or enforcement), thereby complicating measurement.

In *cumulative* CBA—in particular, if the entire regulatory framework is considered—it is informative to undertake two types of analysis: time-series analysis, to examine the development of direct costs over time; and cross-section comparisons of the costs of regulators internationally.

Both analysis types provide useful information, even in the absence of the results of a full CBA. For example, significant increases in direct costs over time would raise questions about the efficiency of the regulatory regime and make it more important to prove significant regulatory benefits. Increases in a regulator's direct costs may be due to external factors, particularly legal or political factors—ie, not necessarily to organisational inefficiencies—and may therefore require specific treatment. In particular, legislators may change the scope of the objectives of regulators or their methods and instruments.

An example is the modernisation of the EU competition regime from May 2004, enabling Member States' competition authorities to make a greater contribution to the enforcement of the European competition rules, thereby possibly resulting in an increase in their workload. Court decisions changing the forensic investigatory powers of competition authorities are another specific example that could explain changes in costs of investigations over time.

Similarly, marked differences between the costs of the regulator to which the CBA is applied and its international comparators would indicate, at least initially, whether the regulator concerned is cost-effective. If its costs were markedly higher than those of its comparators, this would increase the burden of proof to measure significant benefits (unless the cross-country variations can be explained by other factors, such as a different scope of regulation). If, on the other hand, costs were significantly lower in the Netherlands than in other countries, less effort in the benefits measurement may be justifiable.

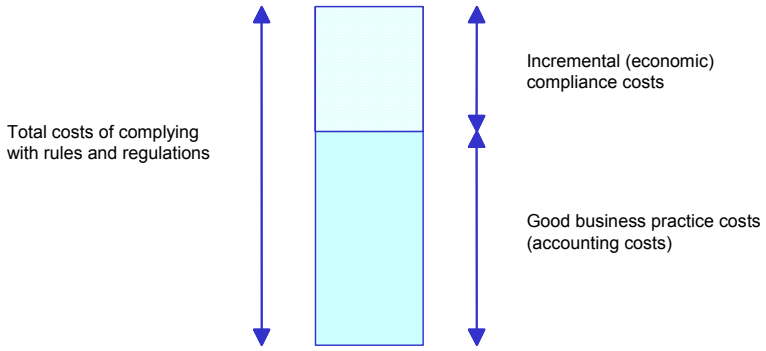
3.2.2 Direct (compliance) costs incurred by regulated firms

In classifying compliance costs, it is useful to distinguish between 'economic' and 'accounting' costs. Accounting costs emerge as part of firms' good business practice, while economic costs are *incremental* costs that arise solely due to regulation.[18]

Figure 3.1 shows the relationship between total and incremental compliance costs.

[18] See, for example, Wydefeld (1998). The importance of separating incremental costs from total compliance costs is highlighted in academic research; see, for example, Franks, Schaefer and Staunton (1998). For example, under UK regulations, investment firms are generally required to separate their clients' monies from the firms' own funds. Although a regulatory requirement, many firms would also separate client money in the absence of the rules. As such, the separation requirement may not be regarded as imposing an incremental burden on firms—separating client money from the firms' own funds constitutes good business practice for most firms.

Figure 3.1: Defining incremental compliance cost



It is important to appreciate that compliance costs arise not only in compliance departments, but potentially in all departments or business areas (eg, IT, strategy or senior management). Another useful categorisation is to break down the total compliance costs into their components (cost drivers). This improves the accuracy of cost estimates (eg, it may be more difficult to estimate total costs, and it is easier to check the plausibility of estimates by considering the individual cost drivers). These individual costs drivers include:

- labour costs (including number of staff, wages, and training);
- administrative overheads;
- IT and system costs;
- capital requirements;
- legal expenses;
- non-recurring costs, which can be referred to as temporary or one-off costs incurred to adjust to new regulation, including time needed to become familiar with the new regulation, investments necessary to update systems and IT, the purchase of legal expertise or other consultancy advice, etc;
- recurring costs, which can be regarded as the continuous or ongoing costs of meeting regulatory requirements for the new regulation.

Finally, it should be noted that compliance cost could be measured for different increments, for example:

- *for regulation as a whole*—in which case compliance costs could be expressed at the firm level on an annual basis; or
- *for specific regulatory decisions or actions*—in which case a part of the total compliance costs needs to be allocated to this 'incremental' decision.

3.2.3 Economic costs of negative market impacts

While the objective of regulation is to improve market functioning, actions by regulators can have (probably unintended) adverse consequences on the market as well. Such actions may change the nature of markets, prevent or discourage firms from entering or using markets, or have a significant effect on the nature and availability of the products provided, consumer choice, and the level of innovation in the industry. These negative effects may also have repercussions for the wider economy.

A clear example is the imposition of a price cap on a dominant firm by a regulator (or an ex post prohibition of excessive pricing by a competition authority). In the short run this will have the effect of keeping prices closer to cost and thus enhance allocative efficiency (the different concepts of

efficiency are explained in the sub-section below on economic benefits). In addition, if the price-cap mechanism is adequately designed, it creates incentives on the regulated firm to reduce costs, and hence enhances productive efficiency.[19]

In the long run, however, the imposition of a price cap may distort competition by limiting the incentives for new firms to invest and enter the market. After all, in properly working markets, it is the price-signalling function that leads to firms entering and exiting the market, and a regulatory price control tends to distort this signalling function. This inherent trade-off between allocative efficiency (through price caps) and dynamic efficiency (no price cap in the expectation that entry will occur) has been well documented in the literature, and forms one of the most difficult trade-offs that market regulators need to make.

Competition authorities can also produce negative market impacts through intervention. In particular, many anti-competitive mergers, agreements and business practices may have positive effects on efficiency. For example, a merger may lead to reduced costs through economies of scale, as well as to market power. Likewise, exclusive dealing arrangements between a manufacturer and a retailer may enhance distribution and informational efficiencies, as well as foreclose competition from a rival manufacturer.

Competition authorities therefore face the challenge to weigh up the anti-competitive effects of mergers and business practices against the possible efficiency effects. Indeed, there is an ongoing debate in competition policy as to how the balance ought to be struck. A rule of thumb often used is the market power (or dominance) test: if the firm or firms in question do not have market power, the presumption is that the practices in which they engage cannot have a substantial effect on competition and, on balance, are therefore likely to enhance efficiency (or at least to have a neutral effect). However, even this test can be applied in many different ways.

In general, antitrust law in the USA has been more open to efficiency arguments when assessing mergers and business practices than competition law in the EU, and therefore tends to be less interventionist (see, for example, Niels and ten Kate 2004). The efficiency defence has only recently become more explicit in EU competition law, in particular in the application of merger control and Article 81. Therefore, in competition law in the EU and its Member States, the probability of a negative market impact along the lines discussed above is likely to be higher than in the USA.

One anti-competitive practice that has unambiguously negative welfare effects—and hence action against it has unambiguously positive benefits—is 'naked' price fixing or market sharing among competitors (sometimes referred to as 'hardcore' cartels). Hardcore cartels are generally recognised as particularly damaging to economic welfare (see, for example, OECD 2002). Therefore, substantial benefits can be expected to result from actions by the competition authorities against such cartels.

In contrast to direct costs and compliance costs, the economic costs of negative market impacts are often difficult to quantify and may have to be analysed on a qualitative basis. Such a qualitative assessment would focus on making the different trade-offs explicit, and would require an analysis

[19] The RPI – X approach is an example of a price-cap mechanism that gives firms incentives to operate efficiently. Under this approach, prices or revenues are only allowed to increase by some measure of price inflation (retail price index, RPI) minus the X factor, where the X factor is set according to the regulator's expectation of potential efficiency improvements. The cap is then fixed for an exogenous period of time, often between three and five years. Any efficiency improvements achieved beyond the X factor can be kept by the company as profits. At the end of the control period, these cost reductions can be passed on to the consumer in the form of lower prices for the next period.

of the probability that an intervention may result in negative effects on the market, and an analysis of what weight was given to these factors by the regulator in taking its decision.

3.2.4 Indirect regulatory costs (regulatory uncertainty/risk)

When regulators administer controls over commercial activities of private firms, capital invested in those firms is exposed to a specific source of risk. The outcomes from the future streams of regulatory decision-making processes cannot be predicted with certainty. This is regulatory uncertainty, and a direct consequence of regulatory discretion.[20]

The degree of regulatory risk is related to the way the regulator applies regulation to companies. For example, inconsistent decisions or applying new rules retrospectively are likely to result in higher regulatory risks. With regard to UK regulation, the literature has indicated that inconsistencies in regulators' actions at price reviews since privatisation may lead to increases in the cost of capital (see, for example, Helm 1995 and Bishop et al 1995).

Regulatory risk can be defined as the risk that arises when the interaction of uncertainty and regulation changes the cost of financing the operations of a firm. For example, certain types of regulatory regimes and enforcements are likely to expose regulated firms to market risk more than other regimes. Market risk, unlike firm-specific risk, cannot be eliminated by portfolio diversification and is therefore of great importance to risk-averse investors. A higher level of market risk must be compensated with higher average returns—ie, it increases a company's cost of capital.

For example, pure price-cap regulation involves the setting of prices over a relatively long period of time such that a well-run company can expect to earn a fair rate of return. The system is forward-looking: reasonable cost levels must be forecast far into the future with a high degree of accuracy so that reasonable prices can be set. The lack of automatic price-adjustment mechanisms means that the company is exposed to all cost changes, including those over which it has no control. The risks involved in price-cap regulation are likely to be reflected in the company's cost of capital, as investors will demand a higher average rate of return in compensation for bearing additional risk.

Under pure rate-of-return regulation, a company is guaranteed an agreed rate of return on capital and its prices are adjusted as required to ensure that this rate is earned. In this situation, the company bears little risk as any unforeseen costs can quickly be passed on to customers. Due to this lack of risk, the agreed rate of return can be fairly low and prices to customers can be kept low. However, in practice, rate-of-return regulation is not free from regulatory risk, because, for example, there is often uncertainty about whether the regulator will allow certain costs to be included as capital expenditure (on which the rate of return set by the regulator can be made).

In sum, the type of regulatory regimes and the way the regimes are enforced are likely to affect the extent to which regulated companies are exposed to market risk. Given that this will have implications for the firm's cost of capital, it is an important factor to consider in a CBA. Section 2.4 of Part II shows how such regulatory risks can be measured in practice.

3.2.5 Social costs and benefits

As discussed in section 2.4, the costs and benefits considered in the framework are primarily assessed against the benchmark of economic welfare or efficiency, although other social objectives—for example, universal access in telecommunications and postal services, and protection of vulnerable customers in financial services—can be accommodated in the framework

[20] Regulatory uncertainty could also be created by government legislation or the judiciary system, not only by regulatory bodies.

as well. The framework allows trade-offs between different goals to be made explicit by identifying, assessing, and, where possible, quantifying them, and then comparing the costs with the benefits.

Social welfare costs (or benefits) can, in principle, be measured by individuals' willingness to pay for the good or service, or by their willingness to accept compensation to forgo consumption. The former is most commonly used, although there are cases where individuals perceive an existing right to consumption where the second measure may be justified. The two measures usually have different values, because the acceptance of compensation is not constrained by the income of the individual, but ability to pay is (so that the latter has a smaller value), as discussed in section 2.

Where the goods or services in question are traded in markets, demand schedules can be determined from market data, and these contain the information on willingness to pay—this is known as the revealed-preference technique. Where the goods or services or attributes are not traded, consumers can be asked directly for their valuation in the hypothetical situation of a purchase or of compensation—this is known as the stated-preference technique (an example is conjoint analysis; see section A2.4, Part II).

In order to take into account social objectives to protect poor or vulnerable customers, benefits accruing to these customers are sometimes given a special weighting, increasing their importance in the aggregation of values across all beneficiaries. These 'welfare weights' can be derived from income, using evidence of societal preferences, or can be set more arbitrarily to reflect the assessors' priorities.

3.2.6 Economic benefits of positive market impacts

The economic benefits of the enforcement of regulation can be measured in terms of productive and allocative efficiency, enhanced dynamic competition/innovation, enhanced market functioning and macro-economic effects.

- *Productive efficiency*—the level of prices can be assessed in terms of productive and allocative efficiency. Productive efficiency occurs when a given set of products is being produced at the lowest possible cost using existing technology. Generally speaking, competition will result in productive efficiency because those firms able to produce at the lowest cost will maintain or enhance market share at the expense of less efficient producers. Companies will have an incentive to produce their products and services at the lowest possible cost since this will maximise profits, and competition with other companies will give them an incentive to continue to reduce costs over time—firms that do not have costs as low as their rivals will be forced to exit the market. The lack of productive efficiency of a company is often referred to as X-inefficiency.

- *Allocative efficiency*—this occurs when, for each product, the price is equal to the marginal cost of producing the product concerned. Generally speaking, competition will drive prices down to costs—companies that set prices higher than their rivals will lose market share, and will at some point have to adjust their prices or exit the market. Competition will therefore result in allocative efficiency.

An example can illustrate these two concepts. A monopolist maximising its profits will set prices above marginal costs. This results in allocative inefficiency since there are consumers who are willing to pay at least the marginal cost of the product, but who do not get served at the existing price. This is referred to as the 'deadweight welfare loss to society' (see Appendix 2 of Part II for further details). At the same time, because the monopolist is the only provider and therefore does not face any competitive pressure from other companies, it may also have fewer incentives to

reduce costs over time through innovation and use of new technology (indeed it may have incentives to incur inefficient, unproductive costs). This refers to productive inefficiency—ie, costs are higher than the lowest possible costs using technology currently available.

- *Enhanced dynamic competition/innovation*—static competition refers to a situation whereby companies use existing technology to produce similar goods and services and mainly compete on price. Dynamic competition refers to a situation whereby companies try to compete against each other by improving existing products and introducing new products using new technologies. Dynamic competition is likely to result in a greater variety of products and services.

- *Enhanced market functioning*—factors that are likely to contribute to market functioning include transparency, market confidence, and consumer protection. Generally speaking, transparency can strengthen competition since it makes it easier for consumers to inform themselves about the different products available, compare prices and shop around for the best deal. In some markets, particularly in the financial services sector where market failures are significant, regulation may be needed to build market confidence and make these markets function in the first place. The benefit of increased market confidence could then be assessed in terms of economic welfare provided by the market concerned. Regulation may also be imposed to protect consumers against financial losses. The benefits of such regulation equal the amount of financial losses that will be avoided by the new regulation (or the probability of such losses occurring multiplied by the amount of the financial losses) and the indirect benefits of greater market confidence.

- *Macro-economic effects*—allocative and productive efficiency are both partial-equilibrium concepts (ie, they refer only to the market in question). However, there are usually further effects on other sectors in the economy, in particular if the market concerned is a market for capital or intermediary goods. These can either enhance or mitigate the inefficiencies from market power described above.

Therefore, enforcement of regulation and competition policy can lead to an increase in efficiency and productivity and, as a result, economic growth. There is a significant amount of evidence suggesting that competition increases productivity: in a survey conducted for the UK Office of Fair Trading (OFT), Haskel (1996) draws on approximately 30 papers written in the previous 20 years and concludes that the evidence indicates not only that an increased level of competition raises the level of productivity, but also that higher levels of competition increase productivity growth (ie, the rate of change), although the proof for the latter is weaker.

3.2.7 Indirect regulatory benefits

- *Regulatory certainty*—by intervening in a consistent way and providing clear guidance, regulators can enhance regulatory certainty among firms (see also the principles of good regulatory practice in section 3.3 below).

- *Deterrent effects*—the effect of regulators' interventions may result in a number of indirect benefits. A classic example is the detection of cartels, and the imposition of fines on cartel members. Imposing high fines is likely to deter other companies from entering into cartel agreements. The degree of the deterrent effect will depend on the level of the fines, the probability of getting caught, and the likelihood that the competition authorities will be able

to find sufficient evidence to result in an imposition of fines. The latter two are related to the reputation of the competition authority.[21]

Another example is where the financial regulator determines that a company has mis-sold a financial service and breached rules on disclosure, advice and selling. Such cases of mis-selling are likely to damage the reputation of the provider involved and will therefore also give other financial services companies an incentive to adhere to the rules and principles set by the regulator.

- *Improved quality of regulation*—in regulating, intervening, and investigating, regulators and competition authorities will continuously build up experience of regulation and the effects of their interventions, and gain knowledge about the markets they regulate. These learning effects are likely to result in better regulation over time.

3.3 Assessment against principles of 'good regulation'

In addition to the above main categories of costs and benefits, an assessment might consider whether regulators operate in line with some commonly accepted principles of 'good regulation'. This aspect of regulatory performance would not fit directly into any of the cost–benefit categories in Table 3.1, but would nonetheless have an important impact on many of these categories. In particular, where any of the indicators below show that the regulator in question does not, or cannot, act in line with the principles of good regulation, the benefits of the regulator, as identified in Table 3.1, may have to be adjusted downwards in the calculation. For example, if the principles of consistency and targeting are not followed, indirect benefits such as quality of regulation may be affected and indirect costs such as regulatory uncertainty may arise.

The literature on principles and best practice in regulation is wide-ranging. Some of this has been reflected in the work of the UK Better Regulation Task Force, which has formulated some key principles of good regulation.[22] Table 3.2 outlines these principles, listing points of relevance to regulators within each principle, and provides some comments on these, together with useful examples where available.

[21] For an analysis of the effects of fines, see van Bergeijk and van Marrewijk (1995). The fines that competition authorities can impose are often capped by the legislators. A very high fine can be counterproductive; for example, high fines may have negative effects on decision-making regarding perfectly legal activities if such activities could be perceived as breaches of competition law. See, for example, van Bergeijk and Godfried (2002).

[22] The Dutch equivalent of the Better Regulation Task Force is the Advisory Board on Administrative Burden (Adviescollege toetsing administratieve lasten, or Actal). This body monitors, advises and encourages the Dutch government in its efforts to reduce the administrative burden on firms. It acts as a supervisory body and facilitator, seeking to support the government's own objective to bring about a 25% reduction in the overall administrative burden on industries.

Table 3.2: Principles of good regulation

Principle	Points relevant to economic regulators	Comments and examples
Clarity of role	The main role of economic regulators should be to address competition problems and other market failures	Have clear duties for the regulator Ideally, the government would give a clear and consistent lead on high-level policy on standards, allowing regulators to implement policy and decide on minor standards if appropriate Policy objectives should be defined by the government in advance Social and environmental aims for regulators can blur their economic focus
Independence from the government	An arm's-length relationship with regulated firms, consumers and other private interests; and with political authorities The attributes of organisational autonomy, such as earmarked funding and exemption from restrictive civil service salary rules[1]	Regulators should be independent from day-to-day government in order to ensure that the long-term decision-making process necessary to achieve dynamic efficiency is not dominated by short-term political considerations. A price regulator that is accountable to politicians on a day-to-day basis, for example, might hinder necessary real price increases This also means that regulators should be financially independent. If, for example, an economic regulator is financed through a ministry budget, there are likely to be weak boundaries for intervention in the affairs of individual companies The way the key staff is selected, the quality of the personnel and the type of regulatory procedures are important. For example, paying the staff appropriately should help attract the skills and expertise to carry out the regulator's duties, while remaining independent of both the government and the industry Establish the regulators' powers through primary legislation. This protects regulators from being undermined by ministers unless such primary legislation is reversed by Parliament
Transparency	The case for regulation should be clearly made and the purpose clearly communicated Proper consultation should take place before creating and implementing regulation Regulations should be simple and clear, and guidance presented in easy-to-understand language	Make reasons for decisions explicit. This can be done via the publication of detailed draft and final conclusions documents detailing the process and results of decision-making Avoid political interference. This is often achieved through the publication of detailed consultation documents during reviews. The responses from stakeholders are usually made public as well A simple and open consultation process is useful. Needs to give appropriate time and information to allow stakeholders to make appropriate responses. In the first few years after privatisation, UK regulators did not publish the reasons for their decisions. This led to uncertainty about likely future decisions, generating unnecessary regulatory risk for the firms
Accountability	Regulators should be clearly accountable to the executive, the legislature and citizens There should be a well-publicised, accessible, fair and efficient appeals procedure	Consumers need effective representation, especially when they are large in number and small in size relative to regulated firms In the USA this is done via the courts. In the UK, the Competition Commission and the Competition Appeals Tribunal are the primary appellate bodies
Proportionality	Compliance should be affordable to those regulated. Regulators should 'think small first' As far as possible, a light regulatory touch should be used Alternatives to state regulation should be fully considered as they might be more effective and cheaper to apply	CBAs can be used to assess this (see Table 3.1), perhaps using a Regulatory Impact Assessment approach. Regulatory burdens can hinder market entry thus producing a negative market impact Try to use competition framework where possible, to minimise regulatory burden Forms of self-regulation may make better use of industry expertise than external regulation (see also section 2)
Consistency	New regulations should be consistent with existing ones Sector regulators should be consistent with each other Regulation should be time-consistent	Avoid unnecessary personnel changes, as these can create inconsistency and regulatory uncertainty (which is one of the categories of costs considered in Table 3.1). A regulatory board may help achieve greater consistency in decision-making A multi-regulator approach should help achieve this Avoids regulation changing due to political changes

Principle	Points relevant to economic regulators	Comments and examples
Targeting	Regulations should be aimed at the problem and avoid a 'scattergun' approach. Where possible, a goals-based approach should be used, with enforcers and those being regulated given flexibility in deciding how to achieve clear unambiguous targets	This give companies freedom to decide how to achieve goals
Reviews	Regulations should be reviewed from time to time to test whether they are still necessary and effective. If not, they should be modified or eliminated	For example, Australia's Productivity Commission has recently proposed rolling back price-cap regulation on gas transmission networks as it believes that this has deterred and distorted investment and therefore 'an alternative less costly form of regulation is necessary'. This helps to avoid negative market impacts

Note: [1] Smith (1997).
Sources: Better Regulation Task Force (see www.brtf.gov.uk) and OXERA.

4. Costs and Benefits of *Regulators*: Framework for Counterfactual Analysis

4.1 Counterfactual analysis for the NMa

4.1.1 Absence of Competition Law 1998 as counterfactual

As explained in section 2, one relevant counterfactual would be the absence of the Competition Law and hence also of the NMa. This would basically be the situation pre-1998, when the previous Economic Competition Law 1956 was in place, enforced by the MEA. The former regime was generally considered as less strict and inactive (the Netherlands was often regarded as a 'cartel paradise'). Therefore, in this counterfactual, all costs and benefits relating to the Competition Law should be taken into account. It would be difficult to distinguish between the costs and benefits of the law and those of the NMa itself.

4.1.2 Private litigation as counterfactual

Another relevant counterfactual, which is closer to the central question raised by the Heemskerk motion, would be the situation in which the Competition Law was not enforced by the NMa but only through private litigation.

The Competition Law creates the possibility of private litigation through the civil courts, although it is not clear how effective this enforcement has been thus far (Berenschot 2002, section 5). The legal part of the 2002 evaluation of the NMa identified shortcomings in the mechanism—for example, the lack of competition policy expertise among judges, and the lack of willingness of courts to deal with the more substantive (as opposed to procedural) issues in competition law proceedings (Slot et al 2002, section 2.10). This makes it more attractive to complainants to take a case directly to the NMa.

Hence, the current private litigation mechanism is not necessarily the most informative counterfactual for the purpose of this analysis. Below, it is assumed that the mechanism *is* sufficiently effective so as to make private litigation at least a realistic option for firms. Indeed, one could imagine that if private litigation were the only way of enforcing the Competition Law, greater public resources would be spent on bringing the courts up to speed to deal effectively with competition law issues.[23]

Assessing private litigation involves several issues.[24] One key issue is the extent to which affected parties are actually *aware* of the anti-competitive behaviour. This will depend on who the affected parties are and the type of behaviour.

- Competitors and business customers (or suppliers) of the perpetrators can be expected to be more aware of anti-competitive behaviour than private customers. Competitors will directly feel the impact of exclusionary behaviour targeted at them. Regular business customers (and suppliers) will often be well informed about market conditions and hence will feel when they are exploited (although, like private customers, they may not always be able to detect whether this is due to anti-competitive behaviour or simply to adverse market conditions).

[23] These resources spent on the judiciary could be seen as a cost that is currently avoided by having the NMa—ie, it is a direct benefit for the purpose of assessing the costs and benefits of the NMa. On the other hand, it could be argued (in line with the 2002 NMa evaluation) that such resources are required even in the present situation, since the judiciary already plays an important role as the appeals body in Dutch competition law, and hence would be expected to be able to deal with substantive issues as well.

[24] A more detailed discussion of the pros and cons of private litigation under competition law is provided in Roach and Trebilcock (1997).

- Exclusionary behaviour (abuse of dominance) is most likely to be detected by other market participants (ie, competitors). Exploitative behaviour (price fixing or excessive charging) will often be felt by customers, but, as noted above, they may not know whether this is due to anti-competitive behaviour or market conditions. Mergers and some forms of agreements may not be detected at all by market participants until after completion.

The next issue that arises is that a litigant must be both *willing and able* to bring their case to court. In other words, they must have the necessary financial resources available, and must expect to gain financially from bringing the case, taking account of the likelihood of winning, and the benefits relative to the disbenefits of losing the case, as against not bringing the case at all.[25]

- With regard to financial resources, this means that large firms are more likely to sue than small and medium-sized firms or private individuals.

  One way to overcome this problem might be to provide smaller litigants with access to public funds to pay legal costs. OXERA is not aware whether such funds would be available in the context of Dutch competition law. At any rate, it is not clear-cut whether such funds are actually desirable (opportunistic litigation may result).

  Another option is 'class-action' lawsuits, where the interests of a (potentially very) large number of affected parties are combined into one lawsuit. These have been effective in US antitrust cases. However, while reducing the costs to individual litigants, class actions may also be inhibited by free-rider behaviour.

- With regard to expected financial advantage, litigants must be able to expect compensation greater than the cost of bringing the case, and liabilities that are not excessive. OXERA has no knowledge of how compensation or damages would be determined in court cases in the Netherlands. US antitrust law has established the concept of 'treble damages', which means that successful plaintiffs receive compensation of three times the amount of the estimated damages they have suffered. This creates a strong incentive to take cases to court.

Finally, other factors in private litigation are the rights of complainants to *gather evidence*, and the *alignment of incentives* between an offender's competitors and consumers. A case is also more likely to proceed if the complainant has the right to gather evidence (this is related to the awareness point made above). Likewise, a case is more likely to be taken forward if the interests of an offender's competitors are aligned with those of its customers. For example, a competitor may not complain about a merger, or a price-fixing scheme in which it is not involved, since it may also benefit from the higher prices that result in the market. Conversely, a competitor may complain about a merger that creates an efficient rival, even though this would be in the interest of consumers.

Thus, if private litigation were chosen as the appropriate counterfactual for a detailed analysis, the following questions would be of relevance (even though, as noted above, for a relatively high-level analysis it can be assumed for simplicity that the judicial system *is* sufficiently effective):

- how effective and capable is the judiciary in dealing with competition cases?
- are affected parties aware of the anti-competitive behaviour?

[25] In cases where the litigant is suffering critical financial disbenefits from the offender's behaviour, and the legal procedures take some time to run their course, the litigant may need to rely on interim measures (such as a temporary judgment from the court, or public financial support for its business activities) in order to survive long enough to bring their case. OXERA does not know the details of the legal mechanisms in the Netherlands dealing with interim measures (either in court or NMa proceedings).

- do potential litigants have sufficient financial resources to prosecute a case?
- is public funding available to supplement a litigant's private financial resources?
- can the court make a temporary judgment to mitigate interim financial damages?
- what costs and damages does compensation cover?
- what is the financial exposure of the litigant to liabilities?
- how long does a case take to prosecute?
- are the interests of competitors and customers well aligned?
- what rights does the litigant have to gather evidence?

4.2 Identifying the relevant costs and benefits for the NMa analysis

4.2.1 Costs and benefits under the counterfactual of no Competition Law

If the counterfactual chosen were the absence of the Competition Law, and hence the NMa, all costs and benefits related to the law and its enforcement can be included in the analysis. In theory, these could be compared with the costs and benefits of the previous regime (in which the MEA enforced the Economic Competition Law 1956), but there were relatively few investigations compared with the current regime.

Another aspect of this counterfactual might be to consider the application of the EC competition rules by the European Commission to cases in the Netherlands as an alternative to Dutch competition policy. In this case, the Netherlands would be 'free-riding' on EC competition policy. Indeed, the European Commission has in the past intervened in various cartel cases involving Dutch markets. However, such cases would have to have a cross-border (interstate) dimension. It should also be taken into account that, under the modernisation of EC competition policy as of May 2004, the trend is actually the other way around—ie, towards a greater role for national courts and competition authorities to enforce the EC rules.

4.2.2 Scope of the private litigation counterfactual

If the counterfactual were private litigation, only a sub-set of the activities would be considered incremental, since some types of case with which the NMa currently deals would still be brought before courts. As mentioned above, the types of such cases depend on the affected parties—ie, whether they are competitors, business customers (in business-to-business, or B2B, markets), or private customers (business-to-customer, or B2C, markets)—and the nature of the behaviour concerned. Table 4.1 sets this out in more detail.

Table 4.1: Types of case likely to be dealt with in the private litigation counterfactual

Type of case	Currently dealt with by the NMa	Dealt with in the private litigation counterfactual
Price-fixing cartel—B2B markets	✓	Only if customers are large and very well informed about market conditions
Price-fixing cartel—B2C markets	✓	Unlikely
Other horizontal agreements (eg, technology and production joint ventures)	✓	Only if third-party competitors feel excluded and complain; customers are unlikely to complain
Vertical agreements	✓	Only if third-party competitors feel excluded and complain Parties to the agreement are unlikely to complain if they both benefit at the expense of consumers
Exclusionary behaviour (abuse of dominance)	✓	Likely to be brought by affected competitors (unless they are small)
Exploitative behaviour (abuse of dominance)—B2B markets	✓	Only if customers are large and reasonably well-informed about market conditions (although the judiciary system may be less well placed than the competition authority to carry out complex assessment of excessive pricing)
Exploitative behaviour (abuse of dominance)—B2C markets	✓	Unlikely
Mergers—B2B markets	✓	Only ex post if competitors or large customers feel affected by the merger
Mergers—B2C markets	✓	Unlikely

From Table 4.1 it follows that certain types of anti-competitive behaviour would almost certainly *not* be addressed in the counterfactual of private litigation—ie, price fixing and other 'hardcore' cartels in consumer markets, exploitative behaviour (eg, excessive pricing) in consumer markets, and mergers in consumer markets. Any benefit arising from NMa action against these practices can therefore unambiguously be considered a benefit of having the NMa.

Furthermore, there are some practices that might be addressed in private litigation, but arguably in a less effective way. For example, price fixing in B2B markets would only be detected if customers are large and very well informed about market conditions.[26] Likewise, mergers might be challenged in court by affected competitors or large business customers, but this would be *after* completion of the transaction and is hence less effective than the ex ante merger control by competition authorities. Thus, these cases can also often be classified as benefits of having the NMa compared with the counterfactual of private litigation.

Exclusionary abuse-of-dominance cases and certain forms of agreements are likely to be dealt with in private litigation as well, since affected competitors can be expected to have the appropriate incentive to file a complaint (such incentives depend on several factors, including the set-up of the legal system, as discussed in the previous sub-section). Hence, NMa intervention in these cases would not necessarily count towards the costs and benefits of having the NMa relative to the counterfactual of private litigation.

[26] However, some of the recent high-profile cartel cases in the USA and EU involved B2B markets such as chemicals, and, even here, cartel behaviour went unchallenged for several years until the competition authorities (rather than private litigants) stepped in.

The indicative classification in Table 4.1 is broadly consistent with the experience of antitrust enforcement in the USA and Australia (for an overview, see Roach and Trebilcock 1997):

- As noted in section 2, a large proportion of US antitrust cases are brought to court directly, without any involvement from the competition authorities (ie, the Department of Justice, DOJ, and the Federal Trade Commission, FTC). The business practices that are most frequently the subject of private litigation are refusal to deal and horizontal price fixing,[27] followed by tying, exclusive dealing and price discrimination. Plaintiffs most often tend to be downstream firms—dealers, franchisees, licensees and business customers—suing their suppliers. The next largest group of plaintiffs are competitors suing each other. The latter includes some challenges to mergers by competitors. On the other hand, the DOJ and FTC tend to focus most of their enforcement efforts on mergers and cartels, and only to a lesser extent on abuse-of-dominance (monopolisation) cases.

- The Australian Trade Practices Act 1974 allows for private litigation, and the competition authority has actively encouraged private actions as an alternative to public enforcement (Roach and Trebilcock 1997). From 1975 to 1994, there were 79 private actions versus 61 cases brought by the authority. Apart from boycotts by labour unions (which accounted for around one-third of all private cases), the most common types of practice challenged privately were abuse of dominance and exclusionary agreements. Only two mergers were challenged through private litigation.

- European countries have been less active, or less successful, in promoting private enforcement of competition law. However, private litigation is becoming an increasingly important topic in EU competition policy, and may well become more prevalent in future. The EU competition policy 'modernisation' package that came into force in May 2004 provides for a greater role for national courts in the enforcement of Articles 81 and 82, which, in principle, creates more scope for private lawsuits than under the current system.[28]

4.2.3 Main categories of costs and benefits under each counterfactual

Tables 4.2 and 4.3 give an overview of the main categories of costs and benefits that need to be addressed when assessing the NMa, for the two counterfactuals discussed above—ie, no Competition Law 1998, and private litigation.

[27] It is not clear to what extent these price-fixing cases are mainly in B2B markets, or also in consumer markets.

[28] Private litigation in EU competition policy is also one of the topics for the forthcoming 'European Competition Day', an event organised for October 22nd 2004 under the Dutch EU presidency.

Table 4.2: Costs and benefits of the NMa against the counterfactual of having no Competition Law 1998 and no NMa

Costs	Benefits
Direct costs of the NMa	
• Total administrative costs of the NMa (and of judicial system in current role) • minus administrative costs of the MEA for enforcement of Economic Competition Law 1956	
Direct costs of regulated firms	
• Total costs incurred by firms to comply with Competition Law 1998, and in relation to specific competition law proceedings	
Economic costs to the markets in question	**Economic benefits to the markets in question**
• No costs due to law itself (Competition Law assumed to be designed to improve economic welfare); negative market impacts may arise from unintended mistakes in application of law by NMa—see Table 4.3	• Allocative, productive and dynamic efficiency achieved through prevention of cartel and other anti-competitive behaviour (if law enforced by NMa or privately) • Enhanced product/service quality and innovation achieved through promotion of a competitive market environment (if promoted by NMa)
Indirect regulatory costs	**Indirect regulatory benefits**
• Regulatory uncertainty among firms due to open-ended nature of Competition Law 1998 prohibitions • Minus regulatory uncertainty under previous system	• Prohibition in Competition Law has deterrent effects on cartels and other anti-competitive behaviour (although the deterrent effect is stronger if prohibition is enforced by NMa—see Table 4.3) • Competition law contributes to the overall government objective of achieving a 'competition culture' (advocacy role), away from the former 'cartel paradise' culture in the Dutch economy

Table 4.3: Costs and benefits of the NMa against the counterfactual of private litigation under the Competition Law 1998

Costs	Benefits
Direct costs of the NMa	
• Total administrative costs of the NMa • minus administrative costs of the judiciary system dealing with private litigation under Competition Law 1998[1]	
Direct costs of regulated firms	
• Total costs incurred by firms to comply with Competition Law 1998, and in relation to specific competition law proceedings • minus costs incurred in private litigation cases	
Economic costs to the markets in question	**Economic benefits to the markets in question**
• Allocative, productive and dynamic inefficiency may result from unintended mistakes by NMa—eg, excessive intervention or prohibition of efficient (and hence welfare-enhancing) practices or mergers • minus any such costs caused by decisions of judiciary system	• Allocative, productive and dynamic efficiency achieved through prevention of cartel and other anti-competitive behaviour that would not be challenged under private litigation • Enhanced product/service quality and innovation achieved through promotion of a competitive market environment
Indirect regulatory costs	**Indirect regulatory benefits**
• Regulatory uncertainty among firms due to open-ended nature of Competition Law 1998 prohibitions (may be mitigated through clear guidance by the NMa and case law over time) • Minus any such uncertainty caused under private litigation	• Active enforcement of prohibition in Competition Law has deterrent effects on cartels and other anti-competitive behaviour that would not be challenged under private litigation • Active stance of the NMa contributes to overall government objective of achieving a 'competition culture' (advocacy role), away from previous 'cartel paradise' culture in the Dutch economy

Notes: [1] The administrative costs of the judiciary only need to be taken into account in the calculation if they were to increase in the counterfactual relative to the current situation where the judiciary already plays a role in Competition Law proceedings (see discussion in previous sub-section).

The categories of costs and benefits are broadly similar for the two counterfactuals in Tables 4.2 and 4.3, with some differences in the details, as follows.

- *Direct costs*—firms probably incur higher costs for private litigation than for the counterfactual with no Competition Law. The same may hold for the administrative cost to the public sector (the costs of the judicial system versus the cost to the MEA of enforcing Economic Competition Law 1956, respectively).

- *Negative market impacts*—these would not be generated by the Competition Law itself, but could arise if the law were not applied correctly by the NMa.[29] See also the discussion in the next sub-section.

- *Market benefits (enhanced allocative, productive and dynamic)*—in the private litigation counterfactual, these benefits are limited to cartel and other anti-competitive behaviour cases that would not be brought under private litigation (as identified in Table 4.1 above).

[29] Equally, in the other counterfactual, the courts may not interpret the application of the law correctly.

On the other hand, in the counterfactual in Table 4.2, many of the market and indirect benefits would only be obtained if the NMa played an active role.

4.2.4 Practical approach to assessing costs and benefits of the NMa

In each of these counterfactuals, the most important and unambiguous benefits are likely to arise from anti-cartel actions. Hardcore price-fixing and market-sharing cartels are the most damaging of anti-competitive behaviours, and, in contrast with other agreements, practices or mergers, have no offsetting efficiency benefits. (As discussed above, because the latter have offsetting efficiency benefits, action against them may also produce negative market impacts, in the form of forgone efficiencies).

The benefits of anti-cartel action are often measured on a case-by-case basis.[30] The framework and tools identified in this report can be used for such an 'incremental' analysis of a specific regulatory action. However, for the purpose of assessing the costs and benefits of the NMa as a *regulator*, it is relevant to consider as a benefit the cumulative effect of all the cartels that have been prevented by the existence of the NMa. This includes both cartels that have actually been challenged by the NMa and those that have been deterred by the NMa without specific action.

It is likely that the latter type is more numerous than cartels that have actually been challenged. One way of identifying cartels that have not been challenged would be to assess the structural characteristics of all industries and markets in the Dutch economy, and, based on these characteristics, to estimate the likelihood of cartels being formed if there were no NMa. The relevant market characteristics that would need to be assessed are described in Appendix 1 of Part II.[31]

Once the markets with a high potential for cartelisation have been identified, the hypothetical costs of a cartel can be calculated (in terms of rough orders of magnitude), using the techniques described in Appendix 2 of Part II this report. The sum of all these costs is then taken as the benefit of having the NMa—given that the assumption is that the NMa has prevented these cartels from being formed.

An application of this calculation of the benefits of the NMa is presented in section 1 of Part II.

4.3 Counterfactual analysis for sector regulators in previously monopolistic markets

4.3.1 Possible counterfactuals

As discussed in section 2, there are a number of possible counterfactuals for the assessment of the costs and benefits of sector regulators in previously monopolistic markets. The most relevant are:

- no privatisation or deregulation, and no sector regulator or application of general competition rules;
- privatisation and deregulation, and no sector regulator or application of general competition rules;
- privatisation and deregulation, and no sector regulator, but with application of general competition rules.

[30] See, for example, the literature review by Crandall and Winston (2003), and the case study on the shrimp cartel presented in section 1 of Part II.

[31] Indeed, this exercise may not be entirely hypothetical given that, prior to the entry into force of the Competition Law 1998, there were many different cartels in operation in the Dutch market, spanning a wide variety of industries.

The first counterfactual would allow an analysis of the costs and benefits of deregulation/privatisation more broadly, and hence would be one step removed from the assessment of costs and benefits of *regulators* specifically. However, the framework developed in this paper could also be used for this purpose. Basically, this counterfactual means a return to the situation prior to the move towards greater market opening in these sectors that began in the mid 1980s–early 1990s in the Netherlands and elsewhere. Utility services were provided by state-owned entities and prices were set by the government. While prices may well have been relatively lower than currently, allocative and productive efficiency would have been less likely than after privatisation/deregulation—that is, to the extent that market forces would be able to function appropriately.

Given that the move to greater market opening in many utility sectors is now to a large extent embedded in economic policy—in part through EU legislation—the above counterfactual may be of limited relevance.

The second counterfactual has greater relevance. It addresses the question of to what extent markets can indeed function properly once privatised and liberalised. In other words, can the transition from a previously state-owned monopoly to a competitive market be achieved without any market supervision, either through a sector regulator or the NMa? This analysis will highlight the extent to which government intervention is needed, but it will not be informative on the question of whether a sector regulator is required. This last question is only addressed through the third counterfactual.

4.3.2 Competition authority versus sector regulator

The third counterfactual comes down to the question of what would happen if market supervision were left to the NMa, and no sector-specific regulator were put in place. There has been extensive, international debate on the issue of competition authority versus sector regulator. In general, a sector regulator:

- is more proactive: it can take action in advance of a problem arising, and require action of the companies it regulates without them having transgressed;
- is required to defend the interests of consumers and may choose to do so with or without promoting competition as the means;
- may have broader duties to protect the interest of minority or vulnerable groups of customers;
- has greater scope to encourage, reward, penalise, and compel companies by contractual force of the company's licence and through control of allowed prices;
- may have a role in simulating the effects of competition where competition does not exist;
- has greater sectoral expertise; and
- systematically collects (and publishes) sectoral data—ie, it has an ongoing monitoring role.

Different countries have different experiences. Most EU Member States have opted for sector regulators in the traditional utility sectors that have been opened up to competition (in part driven by EU legislation). New Zealand is a notable example of a country with minimal regulatory control, preferring to rely solely on the legal system and competition policy (monitored by the New Zealand Commerce Commission) for market regulation, rather than delegate powers to individual sector regulators.

One issue that must be verified when applying the competition authority counterfactual is whether the Competition Law applies at all to the industries or activities in question (see also OECD 1999). In particular, in accordance with EU rules, the Dutch Competition Law provides that certain services of general economic interest—eg, utility services with a universal access requirement, and

healthcare services—may be exempt from the application of the law. According to the legal review by Slot et al (2002), there are currently no clear criteria to determine which services could fall under this exemption. For the purpose of the counterfactual analysis described below, it can be assumed that the Competition Law does indeed fully apply—if in reality it does not, this adds to the benefit of having the sector regulator.

In practice, the costs and benefits of having a sector regulator as regards the counterfactual of a competition authority (ie, the third counterfactual) would have to be assessed on a case-by-case basis. The relevant criteria for this assessment are discussed in the next sub-section.

4.4 Identifying the relevant costs and benefits for the analysis of regulators in previously monopolistic markets

The relevant costs and benefits for the analysis of sector regulators in previously monopolistic markets depend on a number of factors, each of which is discussed in greater detail below:

- the characteristics of the market in question;
- the types of anti-competitive behaviour (or other market failure) that may arise given these characteristics;
- the extent to which the sector regulator has the powers to address such behaviour; and
- the extent to which a competition authority would address such behaviour.

4.4.1 Market characteristics

The main utility markets that fall into the category of having been previously monopolistic (partly) privatised and (at least to some extent) opened up to competition are:

- fixed telephony;
- basic postal services;
- electricity;
- gas;
- rail; and
- airport services.

These markets have a common feature in that they consist of different vertical layers in the supply chain, some of which lend themselves to competition, while others are (still) characterised by strong economies of scale and natural monopoly. Examples of the latter are the local loop in fixed telephony, the rail network in the rail transport sector, and the transmission grid in electricity.[32]

The liberalisation of the market may therefore not lead immediately to effective competition, as competitive providers may still need to rely on the incumbent for an upstream or downstream bottleneck/monopolistic service, or they may face strong competition from the incumbent, which, initially, will have a very high market share.

The likelihood of competition developing in these markets without supervision depends on a range of market characteristics that will have to be assessed for the CBA. Appendix 1 in Part II gives a more detailed overview of relevant market indicators and how they can be analysed in a practical way.

[32] There is an extensive body of literature on the possibilities for competition and regulation in these previously monopolistic markets. A review of this literature is beyond the scope of this report. Useful textbooks on this topic are Kahn (1970), Armstrong et al (1994) and Viscusi et al (2000).

4.4.2 Types of anti-competitive behaviour

There is a range of competition problems and anti-competitive practices that may arise from the strong (initial) market position held by the incumbents in these privatised/deregulated markets. It is useful to make a distinction between *exploitative* practices—conduct that exploits customers—and *exclusionary* practices—conduct that excludes competitors. Exclusionary abuses are usually scrutinised more stringently by competition authorities since they directly harm competition. Exploitative abuses may have no exclusionary effect on competitors (or indeed, in the case of excessive pricing, may send a signal to competitors to enter the market).

Some of the most common exclusionary practices include:

- refusal to deal or to grant access;
- margin squeeze;
- price discrimination;
- predation, targeted discounting and other unfair low-pricing practices;
- tying and bundling; and
- exclusive contracts and exclusive dealing;

Practices that might be labelled as exploitative include:

- excessive pricing;
- excessive costs or inefficiency;
- excessively low quality;
- lack of investment;
- unfair contract terms.

The key question for the counterfactual analysis is which of these practices can and would be effectively dealt with by the competition authority in the absence of a sector regulator. This is discussed below.

4.4.3 Tools available to NMa and sector regulators

The key instruments of the NMa are the prohibitions of anti-competitive agreements and abuse of dominance and the control of mergers. Mergers and many agreements can be assessed ex ante, but abuses of dominance are normally assessed ex post. This is a crucial difference with sector regulators, which, in principle, will have instruments available to tackle anti-competitive behaviour ex ante as well.

One way of assessing the counterfactual is by comparing the tools and instruments that competition authorities and regulators have available. Table 4.4 contains such a comparison for the NMa and for OPTA under the new EU Electronic Communications Directives. The focus of the table is on tools that OPTA has available, but that the NMa does not (or has only in part), rather than vice versa, since this is consistent with the counterfactual that is being considered here (absence of the sector regulator, reliance on competition authority).[33]

[33] Indeed, the NMa has various tools and instruments that OPTA does not have, including merger control, certain investigative powers, and the ability to levy fines of up to 10% of turnover. These are not the focus of the incremental/counterfactual analysis here, although they could in theory be considered benefits of the counterfactual (and hence costs of OPTA) to the extent that these greater powers lead to more effective regulation.

Table 4.4: Regulatory tools of OPTA versus the NMa

Available tools	Relevant provision in Communications Directives	Equivalent tool available to NMa?
Monitoring of the effectiveness of competition	FD Art 16	To some extent, but no formal market investigation powers as in UK
Monitoring of companies' behaviour	AD, Art 10, USD Art 16, 17	To some extent, but no formal market investigation powers as in UK
Requiring accounting separation	FD, Art 13; AID Art 11	No
Requiring the availability/publication of certain information	FD Art 5.4, AID Article 9, USD Article 21 & 22	No
Enforcing price transparency	AID Art 9, USD Art 21	No
Quality-of-service regulation	USD Art 11 & 22	Only partially through abuse-of-dominance provision
Non-discrimination rules	AID Art 10	Yes (ex post)
Incremental cost-pricing rules (preventing predation)	USD Art 17	Yes (ex post)
Margin-squeeze rules	AID Art 13.1	Yes (ex post)
Transfer-price regulation	AID Art 11.1	Only through margin squeeze and price-discrimination rules
Access regulation and requirements	AID recital 6	Only ex post under the essential facilities doctrine, which is a much higher intervention threshold
Price regulation	AID Art 13, USD Art 17	Only ex post through excessive pricing prohibition
Cost regulation	AID Art 13, USD Art 17	No

Notes: FD, Framework Directive: Directive 2002/21/EC of the European Parliament and of the Council of 7th March 2002 on a Common Regulatory Framework for Electronic Communications Networks and Services; AD, Authorisation Directive: Directive 2002/20/EC of the European Parliament and of the council of 7th March 2002 on the Authorisation of Electronic Communications Networks and Services; USD, Universal Service Directive: Directive 2002/22/EC of the European Parliament and of the Council of 7th March 2002 on Universal Service and Users' Rights Relating to Electronic Communications Networks and Services; AID, Access and Interconnection Directive: Directive 2002/19/EC of the European Parliament and of the Council of 7th March 2002 on Access to, and Interconnection of, Electronic Communications Networks and Associated Facilities.

4.4.4 Anti-competitive practices dealt with (or not) in the NMa counterfactual

Of all the possible anti-competitive practices mentioned above, the ones that are usually most critical to control in privatised/deregulated markets are:

- excessive pricing in activities that remain monopolistic (or where competition is not yet effective);
- refusal to grant access to bottleneck facilities in the vertical chain, or granting of such access on distortive terms and conditions (eg, through price discrimination or margin squeeze);
- predatory pricing or other exclusionary practices targeted at new entrants that, as yet, have a weak market position.

These are discussed in turn below.

Competition law in the EU and the Netherlands prohibits excessive pricing. Under EC law, an abuse of dominance can be determined if prices are 'excessive in relation to the economic value of the service provided'.[34] The NMa has been relatively active in enforcing the excessive pricing prohibition (compared with the European Commission and other national competition authorities, with the exception of those in the UK). It has in fact reviewed two excessive pricing cases in utility industries: postal services and airports.[35]

Thus, in the absence of a sector regulator (and an ex ante price-control mechanism), one might still expect some scrutiny of the incumbent's charges through the abuse-of-dominance provision. This possibility needs to be taken into account when undertaking the counterfactual analysis.

However, it is not clear how effective NMa intervention would be, because, for example:

- an ex post assessment is inherently more difficult and also creates greater regulatory uncertainty than an ex ante price cap;
- the ex post assessment is more ad hoc, and may therefore not capture all instances of excessive charges, and may not benefit from the same structural information gathering usually undertaken by a sector regulator;
- the sector regulator will normally have a more in-depth understanding of the industry (or, at least, the information asymmetry between regulatee and regulator is smaller than between regulatee and competition authority)—see also the discussion below.

As regards the granting of access, this can also, in principle, be enforced under competition law. Under EC law, refusal to supply (or to grant access) may be considered an abuse of dominance if supply to other parties has been granted previously. If access has not previously been granted, however, the essential facilities doctrine would apply, and in practice this is a much higher hurdle from the perspective of competitors than access requirements typically set by sector regulators. There is also some legal uncertainty regarding the exact scope of the doctrine. In its *Oscar Bronner* decision of 1997, the European Court of Justice (ECJ) adopted a rather restrictive definition of essential facility (Case C-7/97). It stated that the duplication of a facility would not be considered impossible or unreasonably difficult (hence making it non-essential) simply because it implies (uneconomically) high costs.

Thus far, the European Commission has applied the doctrine to seaports and railway networks.[36] In these cases it therefore seems that competition policy can be used to enforce access. For other utility networks, however, this is less clear.

The European Commission has also recently dealt with refusal to supply by a natural monopoly infrastructure provider in the financial services industry. In June 2004, the Commission found that Clearstream—the monopoly infrastructure for the settlement of securities issued in Germany—had infringed competition law by refusing to supply cross-border settlement services and by applying discriminatory prices. Although not considered a privatised/deregulated market for the purpose of this framework, settlement infrastructure does share some of the natural monopoly characteristics of networks in the utility industries (see Niels et al 2003). However, perhaps reflecting the limitations of competition law in enforcing access, the European Commission also announced in April 2004

[34] Case IV/28.851, *General Motors Continental* (75/75/EEC), December 19th 1974, OJ L 029, 30/02/1975; and Case C-26/75, *General Motors v Commission*, November 13th 1975, E.C.R. 1367. The Commission decision was annulled by the European Court of Justice on the basis of the facts, but the definition of excessive pricing was upheld.

[35] *Case 13/Complaints against PTT Post*—see NMa (1999)—and *Rapportage Luchthaventarieven Schiphol*—see NMa (2001).

[36] For seaports, see Commission Decision 94/119/EEC, *Port of Rodby (Denmark)*, OJ L 55, February 26th 1994. For railway networks, see Commission Decision COMP/37.685, *GVG/Ferrovie dello Stato SpA*, August 27th 2003.

that it intends to implement a Framework Directive on clearing and settlement of securities dealing with issues such as open access to clearing and settlement systems—in other words, the Commission proposes sector regulation in addition to competition law to deal with network access (European Commission 2004).

Thus, refusal to grant access may be difficult to address under competition law, and certainly meets higher hurdles (and greater legal uncertainty) than enforcing access under sector-specific regulation. This needs to be taken into account when undertaking the counterfactual analysis.

With regard to the terms and conditions of access, these can arguably be addressed more effectively under competition law than refusals to grant access. In particular, experience and case law suggest that competition law can be used to ensure that access to a bottleneck facility is given:

- *in a non-discriminatory manner*—the vertically integrated business and its independent competitors are given equal terms; indeed, Article 82(2)(c) of the EC Treaty states that an abuse of dominance may consist of:

  > applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;

- *in a manner such that margin squeeze is prevented*—a margin squeeze occurs where the charges for access to the bottleneck facility are too close to the operator's downstream retail price, leaving little or no room for profits for the other downstream operators.[37] EC case law establishes this as a potential abuse of dominance.[38]

  Two recent examples of margin squeeze inquiries in a privatised/deregulated market are:

  - the European Commission's 2003 investigation into Deutsche Telekom in relation to margin squeeze on wholesale fixed-telephony access services—interestingly, the Commission intervened under competition law despite (or to complement) the existing sector-specific regulation by the German regulator, which sets both wholesale and retail prices but, apparently, did not control sufficiently for margin squeeze between these two;[39]
  - Ofcom's investigation into BT's residential telephony charges and whether these 'squeezed' competing carrier pre-select (CPS) providers in the UK.[40]

Enforcing access terms and conditions ex post under competition law may not always be as effective as ex ante enforcement under sector-specific regulation. On the other hand, to the extent that clear case law is developing in these practices in EC and Dutch competition law (which is likely to happen), this case law can in fact become a form of ex ante regulation by setting out what is and what is not allowed.

Finally, it seems fair to say that competition policy *does* have the ability to deal effectively with the other anti-competitive practices mentioned above, in particular predatory pricing and targeted discounting by incumbents aimed at smaller competitors. The European Commission's *Deutsche*

[37] For the vertically integrated firm, it makes no difference in principle whether it keeps its profits upstream, or passes them on to its downstream operations, and by keeping profits upstream it avoids allegations of undue discrimination.
[38] Case No. IV/30.178, *Napier Brown–British Sugar*, OJ L 284, October 19th 1988.
[39] Case COMP C-1/37.451, *Deutsche Telekom AG*, OJ L 263, October 14th 2003.
[40] See Ofcom (2004). Ofcom is the UK sector regulator for communications services, but it also has concurrent powers with the UK OFT to apply the Competition Act 1998.

Post case is a clear example.[41]. Here the Commission intervened when Deutsche Post, the postal incumbent, allegedly tried to hinder the development of competition in mail-order services (a liberalised market) through fidelity rebates and pricing below incremental cost.

4.4.5 Other issues dealt with (or not) in the NMa counterfactual

In addition to the anti-competitive practices listed above, there are a number of other concerns that sector regulators might have in privatised/deregulated markets, but the NMa may not. These include:

- quality regulation;
- assistance (temporary) of new entry;
- universal access to services.

In principle, quality regulation might be addressed in competition law. Offering a low-quality service (prices remaining equal) is basically the equivalent of charging an excessive price for that service (quality remaining equal). Both are potentially exploitative abuses of dominance.

Article 82(2)(b) of the EC Treaty identifies 'limiting technological development to the prejudice of consumers' as a possible abuse of dominance. However, findings of this type of exploitative abuse of dominance under competition law have been rare. One example is the ECJ's *Port of Genoa* case (1994), where a refusal to adopt modern technology that led to increased costs and prolonged delays was held to constitute an abuse of dominance.[42]

In the UK, Ofwat, which is the sector regulator for the water industry but also has concurrent powers with the OFT to apply the Competition Act 1998, makes explicit reference to this type of abuse in its guidance on the application of the Competition Act 1998:

> non-price terms may be exploitative, in that a dominant undertaking may offer an unacceptable low quality of service, or unreasonable non-price terms (Ofwat 2000, para 4.31)

As regards entry assistance, it has sometimes been argued that incumbents should only be able to 'meet but not to beat' the prices of competitors, particularly in markets that have recently opened up to competition. In other words, the incumbent may only match lower prices by new entrants, but may not undercut them, even if its prices remain above cost. Such a rule would be one of entry assistance, in order to enhance competition at the early stages of liberalisation.

Competition authorities do not usually follow this approach. The major drawbacks are that it could encourage inefficient entry, and that it limits the incumbent firm's right to respond rationally to entry in order to protect its commercial interests.

Regulators, on the other hand, may be more willing to consider providing (temporary) entry assistance. One example is the UK gas supply market. In March 1997, Ofgas (now part of Ofgem, the electricity and gas markets regulator for Great Britain) undertook an investigation into British Gas Trading's (BGT) ValuePlus tariff, following concerns about the impact of the tariff on the development of competition in the markets. It was noted in particular that competition was still in a trial period, and that the tariff could be contrary to the supply licence terms, which required competition to be established before price reductions could be made.[43]

[41] Case COMP/35.141, *Deutsche Post AG*, OJ L 125, May 5th 2001.
[42] Case C–179/90 *Port of Genoa* [1991] E.C.R. I-5889, [1994] 4 C.M.L.R. 422 [1994] 1 C.E.C. 196.
[43] Ofgas decided eventually that BGT should be allowed to continue with the tariff. See Ofgas (1997).

Finally, competition policy does not aim to ensure universal access to services for all consumer groups. To the extent that this is a regulatory objective, in the NMa counterfactual it is likely that this objective will not be met. In the counterfactual analysis this should therefore count as a benefit of having the sector regulator.

4.4.6 Relevant costs and benefits

Table 4.5 gives an overview of the main categories of costs and benefits of sector regulators in privatised/deregulated markets, as measured against the counterfactual of supervision by the NMa.

Table 4.5: Main categories of costs and benefits of sector regulators versus NMa in previously monopolistic markets

Costs	Benefits
Direct costs of market regulator	
• Total administrative costs of the regulator • minus any additional costs the NMa would incur in supervising the market in question	
Direct costs of regulated firms	
• Total costs incurred by firms to comply with sector-specific regulation in general, and in relation to specific regulatory proceedings in particular • minus the costs that these firms would incur to comply with Competition Law 1998	
Economic costs to the market in question (negative market impacts)	**Economic benefits to the market in question (positive market impacts)**
• Allocative, productive and dynamic inefficiency may result from certain regulatory decisions—eg, decision to promote service-based competition in telephony may reduce incentives to invest in network infrastructure	• Allocative, productive and dynamic efficiency achieved by ex ante prevention of anti-competitive practices that would not be addressed as effectively through ex post competition law intervention—in particular, monopoly pricing and refusal to grant network access • Allocative, productive and dynamic efficiency achieved by more active promotion of competition in transition phase from monopoly—eg, through more stringent informational/accounting separation requirements on incumbents, or through (temporary) entry assistance • Increased product/service quality through direct regulation which would not occur under competition law
Indirect regulatory costs	**Indirect regulatory benefits**
• Continuous interaction between regulators and regulatees may lead to regulatory capture • Presence of active/intrusive regulator may stifle culture of entrepreneurship and innovation in industry	• Continuous monitoring and information gathering by sector regulator means problems can be identified more rapidly, and interventions can be made swiftly • Continuous monitoring and information gathering by sector regulator also increases expertise of sector regulator (reducing the information asymmetry with the regulatees), and hence is likely to enhance the quality of regulation • Ex ante rules reduce regulatory uncertainty for firms compared with ex post competition intervention (unless rules are changed frequently)
	Social benefits
	• Sector regulator can pursue distributive benefits, security/quality of supply, and universal access. NMa does not have this focus

4.5 Counterfactual for other sector regulators

For the sector regulators in industries where competition is introduced, or where market failures arise—in particular financial services and healthcare—the most relevant counterfactuals are:

- no sector regulator or application of general competition rules; and
- no sector regulator, but with application of general competition rules.

As noted in section 2, the need for regulation may differ across the financial services and healthcare markets; these markets are therefore assessed separately. The emphasis of this sub-section will be on financial services regulation.

4.5.1 Rationale and instruments of financial services regulation

The rationale for regulation of financial services is essentially similar to that for privatised/deregulated markets: because of market failure, competition (and competition policy) by itself cannot function effectively. However, the nature of this market failure is different. In the privatised/deregulated markets, the market failure of concern is natural monopoly, or a strong degree of market power still held by the incumbent.

In financial services there are different market failures that lie at the heart of sector regulation.[44] The two main market failures present in financial markets are externalities (associated with systemic risks) and asymmetric information between providers and consumers—a more comprehensive list of market failures, and how to assess them in practice, is presented in Appendix 1 in Part II. Regulation may be justified to the extent that financial markets would not necessarily deliver satisfactory outcomes if left on their own.[45] In other words, because of the market failures, some financial services markets could not function properly in the absence of regulation.

The externality problem is generally considered in the context of the banking sector—the failure of one insolvent bank can cause depositors from other banks to withdraw deposits, possibly resulting in widespread banking failures (ie, systemic risk). The externality refers to the fact that the social costs of failure of one bank exceed private costs, and such potential social costs are not incorporated into the decision-making of the defaulting firm. Banks may, therefore, be induced into more risky behaviour than they would if all risks (including those for the system as a whole) were incorporated into their decision-making. Regulation (eg, in the form of minimum solvency standards) may therefore be warranted to prevent systemic failures.

Outside the banking sector, the most important type of market failure is asymmetric information. Customers of financial services institutions may be imperfectly informed about a number of factors—eg, the financial soundness of firms and the risks taken by them; the quality and performance of the products offered by the firms; and the likelihood of fraudulent behaviour of employees or managers of the firms. Although this may be the case in many other markets, it is particularly so in the financial services sector because of the complexity of the products involved and the importance of such savings, mortgages and pensions relating to the total income of private-customer services. These problems are especially severe in the retail markets (ie, financial services offered to private customers), which explains the high degree of regulatory intervention in these markets. Indeed, without sector-specific regulation, some of these retail markets would not be able to function properly.

The three core objectives of financial regulation are normally to:

- sustain systemic stability;
- maintain the safety and soundness of financial institutions;
- protect the consumer.

[44] Part of the infrastructure underlying the financial services industry exhibits certain characteristics of natural monopoly—for example, clearing and settlement systems for securities (see also the previous sub-section). Financial services regulation usually does not address this monopoly problem, however.

[45] Numerous studies explain the economic rationale for financial services regulation—for example, Llewellyn (1999), Ford and Kay (1996), and Niemeyer (2001).

Financial regulators can apply two generic types of regulation to address the problems caused by market failures:

- *prudential regulation*—focuses on the solvency, safety and soundness of financial institutions;
- *conduct of business regulation*—focuses on how financial firms conduct business with their customers.

A range of regulatory instruments is typically available, including rules, authorisation, mandatory disclosure requirements, creating appropriate incentives, establishing principles and guidance, monitoring, intervention, sanctions and compensation. A key choice for a financial regulator, as with any policy-maker with multiple objectives, relates to the selection of the various policy instruments available, and the way they are combined to achieve the broad set of objectives. The skill lies not so much in the choice of instrument, but in how they are combined in the overall policy mix. A financial services regulator also has a role in enhancing consumer understanding of financial issues such that the consumer is in a better position to utilise information and make informed judgements.

While intervention by a regulator may mitigate risks and/or reduce market failures and therefore enhance market operations, it can impose direct and indirect costs on regulated firms that may be disproportionate to the economic problems it seeks to address. Moreover, such intervention may sometimes exacerbate rather than reduce existing market failures, and 'crowd out' some market solutions to dealing with the risks inherent in financial services. For example, if the existence of a regulatory regime induces customers to think (incorrectly) that their funds are fully protected, they may inappropriately exclude the possibility of loss in their decision-making or fail to demand adequate protection from firms. Similarly, detailed rules may give room for regulatory arbitrage and distort incentives of firms.

In particular, prescriptive rules rather than principles-based regulation raise several concerns, which are effectively summarised by Llewellyn (1999).

- An inflexible approach based on a detailed rule book has the effect of impeding firms from choosing their own least-cost way of meeting regulatory objectives.

- A prescriptive regime tends to focus on firms' processes rather than outcomes and the ultimate objectives of regulation. The rules may become the focus of compliance rather than the objectives they are designed to achieve. This can give rise to a perverse culture of 'box-ticking' by regulated firms. The letter of the regulation may be obeyed but not the spirit or intention.

- A highly prescriptive rules approach may prove inflexible in practice and not sufficiently responsive to market conditions.

- There is a potential moral hazard because firms may assume that, if something is not explicitly covered in the regulations, there is no regulatory dimension to the issue.

- Detailed rules may also have perverse effects in that they are regarded as actual standards to be adopted rather than minimum standards, with the result that, in some cases, actual behaviour of regulated firms may be of a lower standard than it would have been without the rule. This is especially the case if each firm assumes that its competitors will adopt the minimum regulatory standard.

4.5.2 Relevant costs and benefits of AFM

For the counterfactual analysis to assess the costs and benefits of AFM, it is pertinent to ask whether the NMa would actually address the pervasive market failures in financial services.[46]

- This seems clearly not to be the case for systemic risk. The NMa has neither the powers nor the objective to impose capital and other requirements on providers to maintain financial stability.

- With regard to asymmetric information, the NMa also has limited abilities and powers. Essentially this is because asymmetric information can prevent a market from functioning even if supply is competitive. In these situations there is little a competition authority can do other than take on the role of sector regulator (an example is New Zealand where the competition authority imposes specific information requirements on financial services providers—a role more often assumed by sector regulators).

This is not to say that competition authorities do not have a part to play in supervising market functioning in financial services. Indeed, there was until recently relatively little competition scrutiny in the sector precisely because financial services regulation has traditionally been concerned with prudential regulation and consumer protection. This is now changing, as exemplified by the European Commission's investigation into clearing and settlement, and the increased priority than competition authorities in the UK, the Netherlands and elsewhere are placing on financial services markets (see Cruickshank 2000 and NMa 2003a).

In fact, one counterfactual that might be of relevance is having a financial services regulator with powers to apply competition rules or monopoly regulation, as opposed to the current situation in which the NMa is relied upon to monitor competition in the sector.

Another counterfactual that might become relevant involves a general consumer body being in charge of protecting consumers of financial services products. In the Netherlands, the MEA is currently considering the creation of such a consumer body.

To conclude, Table 4.6 provides an overview of the main categories of costs and benefits of the AFM, as measured against the counterfactual of supervision by the NMa.[47]

[46] AFM is not the only agency charged with financial services regulation in the Netherlands. The Dutch Central Bank is in charge of the supervision and prudential regulation of banks, insurance companies and pension funds.

[47] For further discussion on how to undertake a more detailed CBA in financial services regulation, see Alfon and Andrews (1999).

Table 4.6: Main categories of costs and benefits of AFM versus NMa counterfactual

Costs	Benefits
Direct costs of market regulator	
• Total administrative costs of the regulator	
Direct costs of regulated firms	
• Total costs incurred by firms to comply with sector-specific regulation in general and in relation to specific regulatory proceedings in particular	
Economic costs to the market in question (negative market impacts)	**Economic benefits to the market in question (positive market impacts)**
• Allocative, productive and dynamic inefficiency may result from certain regulatory decisions—eg, strict authorisation requirements on firms may impose barriers to entry and hence increase market concentration	• Regulation allows many financial services markets to function in the first place
• Dimensions of competition may be reduced if conduct regulation becomes too prescriptive—eg, regulation may push towards standardised and transparent products to protect consumers, but this may discourage product differentiation and innovation	• Increased product/service quality through direct regulation which would not occur under competition law
Indirect regulatory costs	**Indirect regulatory benefits**
• Monopoly/market power problems in the financial services industry may be overlooked (or tolerated) as this is not the primary focus of the regulator	• Continuous monitoring and information gathering by sector regulator means problems can be identified more rapidly, and interventions can be made swiftly
• Continuous interaction between regulators and regulatees may lead to regulatory capture	• Continuous monitoring and information gathering by sector regulator also increases expertise of sector regulator (reducing the information asymmetry with the regulatees), and hence is likely to enhance the quality of regulation
• Presence of active/intrusive regulator may stifle culture of entrepreneurship and innovation in industry	• Confidence in financial services markets may enhance consumer saving and investment culture, thus increasing the efficiency of the capital market overall, with benefits to the macro-economy
• Prescriptive rules may become the focus of compliance rather than the objectives they are designed to achieve	**Social benefits**
	• Sector regulator can pursue distributive benefits, security/quality of supply, and protection of vulnerable customers

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