Developing Countries vs. Global Competition Rules. Why?

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0. Zusammenfassung/Summary

Zusammenfassung: Der letztendliche Beschluß steht noch aus, es ist aber nicht unwahrscheinlich, daß in der neuen WTO-Verhandlungsrunde internationale Wettbewerbsregeln auf der Tagesordnung stehen werden. Ähnlich wie dies im Bereich der Investitionsregeln zu beobachten ist, würde dies die wirtschaftspolitische Flexibilität der Entwicklungsländer beschränken. Im hier vorliegenden Text wird argumentiert, daß die Verankerung verpflichtender, weltweit gültiger wettbewerbspolitischer Prinzipien in der WTO problematisch ist. Dies gilt besonders für breit angelegte Regeln und Prinzipien mit weitreichenden Folgen, etwa Regeln für die Zusammenschlußkontrolle oder die Einführung des Prinzips der Inländerbehandlung. Damit würde eine Vorzugsbehandlung für heimische Konzerne verunmöglicht. Auch ein minimalistischer Ansatz, der ein weltweites Kartellverbot vorsieht, würde aus mehreren Gründen wenig wünschenswerte Auswirkungen haben.

Gefordert wird deshalb, von den Verhandlungen ganz abzusehen und stattdessen bilaterale oder multilaterale Abkommen zum Informationsaustausch und zur Kooperation der nationalen Wettbewerbsbehörden abzuschließen. Dies wird von der OECD seit Jahren vorgeschlagen. Wenn Verhandlungen in der WTO nicht umgangen werden können, sollte ein solches Abkommen zum Informationsaustausch und zur Kooperation in der WTO installiert werden, ohne daß eine Verbindung zur WTO-Streitbeilegung erfolgt.

Vor allen anderen Argumenten spricht gegen eine verpflichtende Verankerung von internationalen Wettbewerbsregeln in der WTO, daß dies die weltweite Kooperation der Wettbewerbsbehörden gefährdet. Der Informationsaustausch zwischen Wettbewerbsbehörden stünde nämlich fortan unter dem Vorbehalt, daß dadurch ein anderer Staat einen besseren Ausgangspunkt in einem Streit in der WTO erhalten könnte. Staaten würden deshalb beispielsweise auf die Weitergabe erster Verdachtsmomente verzichten. Gerade ein informeller Austausch über das Firmenverhalten ist aber wichtig, denn es müssen Gründe vorliegen, um eine Untersuchung zu beginnen. Wenn später kein offizielles Untersuchungsverfahren erfolgt und bestimmte Informationen den Wettbewerbsbehörden anderer Länder zur Verfügung stehen, würde dies eine Klage vor der WTO erleichtern. Aus diesem Grund würde der informelle Informationsaustausch zu erliegen kommen. Dies wäre wenig erfreulich, weil die Weitergabe von Informationen im Interesse der Wettbewerbsbehörden sowohl der Industrie- als auch der Entwicklungsländer liegt und bereits gute Erfahrungen damit gemacht wurden. Auch Entwicklungsländer, etwa Brasilien und Chile, wurden in den Informationsaustausch einbezogen. Überhaupt wäre es positiv zu bewerten, wenn die vielen Entwicklungsländer, die über ein Wettbewerbsrecht verfügen, in eine solche offene Kooperationsstruktur eingebunden würden. Deshalb würde es einen Rückschlag für die derzeit in der Entstehung befindliche internationale Wettbewerbskultur bedeuten, wenn ein verpflichtendes Abkommen anvisiert würde. In keinem der diesbezüglich relevanten Abkommen wurden Wettbewerbsregeln bislang mit einer Streitbeilegung kombiniert. In den aktuellen Verträgen der EU mit Südafrika oder Chile und in den Entwürfen zum Regelwerk zu einer amerikanischen Freihandelszone beschränken sich Regeln zum Thema Wettbewerb auf Informationsaustausch und Konsultationen.

Obwohl dies immer wieder behauptet wird, ist das Geschäftsumfeld für internationale Konzerne in Entwickungsländern nicht unsicher. Die meisten Entwicklungsländer haben, neben einer allgemeinen Tendenz zur Liberalisierung, ein Wettbewerbsrecht eingeführt, wodurch die Bedingungen für ausländische Konzerne weiter verbessert werden. Darüberhinaus sorgen bilaterale Investitionsschutzabkommen, die immer weitgehendere Regeln enthalten, und nicht zuletzt die Diplomatie, dafür, daß willkürliche Eingriffe unterbleiben. Dazu kommt, daß die WTO vermittels des Subventions- und Ausgleichszollabkommens, des Dienstleistungs- und Telekommunikationsabkommens, des Abkommens über technische Standards sowie die "non-violation"-Klageoption Instrumente bereitstellt, die einen substantiellen Beitrag zu fairen weltweiten Wettbewerbsbedingungen leisten.

In der mehrere Jahre laufenden Diskussionen über private Marktzugangsbarrieren, die angeblich den Zugang zu Märkten der Entwicklungsländer sperren, sind keine zusammenhängenden und systematischen Beweise dafür vorgelegt worden, daß überhaupt ein Problem in dieser Hinsicht besteht. Meist werden in den vorgelegten WTO-Papieren und den sonstigen Untersuchungen internationale Kartelle angeführt oder der schwierige Zugang zum japanischen Markt beklagt. Die internationalen Kartelle werden in Firmenzentralen, die in den allermeisten Fällen in den Industrieländern liegen, umgesetzt und können in diesen Ländern auch am besten bekämpft werden. Aus diesem Grund sollten die dortigen Wettbewerbsbehörden finanziell besser ausgestattet werden, rechtlich erweiterte Befugnisse erhalten sowie Informationsaustausch betreiben. Die Spannungen insbesondere zwischen der USA und Japan, waren vor einigen Jahren der Anlaß über die internationale Dimension von Wettbewerbspolitik zu debattieren. Diese Probleme wurden bekanntlich in bilateralen Gesprächen angegangen. Beide Fälle legen nicht nahe, daß breit angelegte, internationale Wettbewerbsregeln notwendig sind. Zudem impliziert die Diskussion über Marktzugangsbarrieren der Industrieländer, daß darunter auch Entwicklungsländer zu leiden haben. Die Industrieländern sind allerdings nicht bereit ihre Wettbewerbspolitiken zu ändern, sondern wollen ihren Ansatz für die Entwicklungsländer verbindlich machen. Daß in den Entwicklungsländern Marktzugangsbeschränkungen vorliegen, konnte nicht auf überzeugende Weise gezeigt werden. Allein die stark ansteigenden Importe, die regelmäßig den Zollsenkungen in Entwicklungsländern nachfolgen, zeigen, daß es dort keine weitgehenden Marktzugangsbarrieren gibt. In einigen Fällen werden von Firmenvertretern aus Industrieländern vertikale Wettbewerbsbeschränkungen in Entwicklungsländern beklagt, etwa exklusive Vertriebsvereinbarungen, die den Zugang zu Distributionskanälen erschweren. Experten für Wettbewerbspolitik verstecken ihre Verwunderung über diese immer wieder angeführten Argumente nicht, denn vertikale Beschränkungen sind, besonders tolerant sind hier die USA, auch in den Industrieländern erlaubt. Dort beschränken sie unter anderem den Marktzugang für Entwicklungsländer. Am Japan/Kodak-Fall der WTO-Streitbeilegung wurde dieses Dilemma sichtbar. Parallel zu der Klage der USA gegen Japan beantragte das letztere Land Konsultationen mit der USA, weil dort dieselben, von der USA angegriffenen, vertikalen Maßnahmen vom Wettbewerbsrecht erlaubt sind.

Es ist schwierig, in bezug auf die Notwendigkeit internationaler Wettbewerbsregeln zu klaren wirtschaftstheoretischen Modellergebnissen zu kommen. Aus der Wirtschaftstheorie sind somit nur schwer klare Anhaltspunkte für internationale Wettbewerbsregeln zu gewinnen. Die praktischen Erfahrungen mit Wirtschaftspolitik in den letzten Jahrzehnten lassen erkennen, dies wird an der Geschichte des GATT-Regelwerks

sichtbar, daß sich partielle Flexiblität und wirtschaftliches Wachstum nicht gegenseitig ausschließen. Erkenntnisse der Entwicklungsökonomie und Erfahrungen mit Wettbewerbspolitik zeigen, daß eine Gleichbehandlung heimischer und ausländischer Konzerne nicht unbedingt zu mehr Wachstum und zu einer Stärkung heimischer Konzerne führen. Im Gegenteil, es könnte zu einem verlangsamten Wirtschaftswachstum in den Entwicklungsländern kommen, weil sich deren industriepolitische Optionen verringern. Wiewohl Wettbewerb und freie Märkte unter bestimmten Umständen positive Effekte auf die Wirtschaft haben, ist es gerade in Ländern mit kleinen Märkten vertretbar, daß bestimmten Industrien temporäre Monopolstellungen eingeräumt werden, insbesondere bei solchen Industrien, die bestimmte Produktionszahlen erreichen müssen, um wirtschaftlich arbeiten zu können. Selbst in den großen Märkten der Industrieländer müssen in nicht wenigen Sektoren enge Oligopole toleriert werden, damit Skalenökonomien erzielt werden können. Das Beispiel Südkorea zeigt, daß mit alternativen, nicht-liberalen Anreizsystemen dafür gesorgt werden kann, daß Firmen wettbewerbsfähig werden, obwohl sie in konzentrierten Märkten agieren. Nicht immer ist also eine liberale Idealsituation nötig, um wirtschaftliche Entwicklung zu ermöglichen. Toleranz gegenüber konzentrierten Märkten wird aus denselben Gründen bis heute von kleineren Industrieländern, etwa den skandinavischen Ländern, Kanada oder Portugal geübt. In den letzten Jahrzehnten gab es somit, auch in den Industrieländern, eine Vielfalt von wettbewerbspolitischen Vorgehensweisen und es ist schon deshalb fraglich, ob eine internationale Harmonisierung in diesem Bereich nötig ist. Kanada läßt beispielsweise Zusammenschlüsse zu, wenn dies die Wettbewerbsfähigkeit der eigenen Industrie verbessert und es der Importsubstitution dient.

Internationale Wettbewerbsregeln, die sich auf die Zusammenschlußkontrolle beziehen, würden die Etablierung großer Konzerne in Entwicklungsländern deutlich erschweren. Beispielsweise wären die eben erwähnten temporären Monopolstellungen mit solchen Regeln nicht kompatibel. Jeder vorstellbare Kodex über die Zusammenschlußkontrolle würde einen Abschnitt zur Definition relevanter Märkte enthalten, damit die Wettbewerbsbehörde festzustellen kann, auf welche Märkte sich die Effekte eines Zusammenschlusses auswirken. Bei vollständig abgebauten Zöllen ist es möglich, diesbezüglich regionale oder globale Märkte anzunehmen, weil womöglich auf globaler Ebene eine Konkurrenzsituation vorhanden ist. Auf diese Weise kann der Zusammenschluß großer Firmen gerechtfertigt werden. So wird etwa, in nicht wenigen Sektoren, seitens der Industrieländer verfahren. Dagegen schützen Entwicklungsländer, in denen bestimmte Industriebereiche neu aufgebaut werden, diese typischerweise mit Zollbarrieren vor ausländischem Wettbewerb. In einem solchen Fall ist es unmöglich in einem Zusammenschlußverfahren von globalen Märkten auszugehen und der heimische Markt muß zugrundegelegt werden, eben weil Konkurrenz nicht auf globalem Niveau vorliegt. Auf den kleinen, heimischen Märkten erreichen schon relativ kleine Firmen schnell eine marktbeherrschende Stellung und deren Fusion müßte verboten werden. Kurz: Es wäre für Entwicklungsländer, ohne Liberalisierung, schwierig, das Entstehen großer Firmen zuzulassen. Dies ist nicht akzeptabel, denn ist sinnvoll, daß Entwicklungsländer vermehrt über große Firmen verfügen, um auf gleicher Ebene mit Firmen aus Industrieländern konkurrieren zu können. Dies zeigt, daß weltweit gültige wettbewerbspolitische Prinzipien den Handlungsspielraum von Entwicklungsländern stark einschränken können. Nun mag es so sein, daß andere Bereiche der Wettbewerbspolitik, etwa die Mißbrauchskontrolle bei marktbeherrschenden Stellungen, weniger Anlaß zu Sorge geben. Dies ändert aber nichts

daran, daß schon einige simple Prinzipien weitgehende Auswirkungen speziell für Entwicklungsländer haben und Verhandlungen deshalb als wenig wünschenswert erscheinen.

Industriepolitik in Entwicklungsländer findet heutzutage nicht mehr in Form einer von breitem Zollschutz begleiteter Importsubstitution statt. Wenn diese Länder überhaupt über die nötigen finanziellen Ressourcen verfügen, kommt es zwar vor, daß selektiv bestimmte Sektoren gefördert werden. Dies erfolgt aber auf einem moderaten Intensitätsniveau, denn eine extrem ausgeprägte Förderung ist unmöglich, da sonst Ausgleichszölle drohen oder eine WTO-Klage gemäß dem Subventionskommen gefürchtet werden muß. Diese Projekte werden meist in enger Zusammenarbeit mit Firmen aus Industrieländern durchgeführt, nicht zuletzt weil diese in sämtlichen wirtschaftlich wichtigen Bereichen, Computertechnik, Unterhaltungselektronik, Chemie, Investitionsgüter, Automobile technologisch führend sind. Meist erfolgt innerhalb weniger Jahren bereits eine Liberalisierung, es werden Beteiligungserweiterungen eingeräumt und Direktinvestitionen weiterer ausländischer Firmen zugelassen. Nicht nur daß Firmen aus Industrieländern von dieser Industriepolitik profitieren, gibt es keine Anzeichen dafür, daß sonstige schwerwiegende Benachteiligungen vorliegen. Obwohl sicherlich für einige Zeit künstliche Eintrittsbarrieren aufrechterhalten werden, erreichen Nachzügler schnell das Niveau bereits bestehender Projekte. In den großen Entwicklungsländern sind typischerweise eine ganze Reihe von internationalen Firmen präsent und es ist langfristig im Interesse des Gastlandes, intensiven Wettbewerb zuzulassen, weil damit die Konkurrenz und Investitionsbereitschaft steigt. In kleinen Ländern kann es dagegen opportun sein, für etwas längere Zeit einen exklusiven Marktzugang anzubieten, um überhaupt Investitionen anzulocken. Letzteres würde ebenso durch Regeln für die Zusammenschlußkontrolle erschwert. Alles in allem ist ohne internationale Wettbewerbsregeln weder die Stellung einzelner Investitionsprojekte bedroht, noch stellt die Industriepolitik der Entwicklungsländer eine Gefahr für die großen weltweit agierenden Konzerne dar. Realistischerweise ist es für einige Entwicklungsländer durch industriepolitische Maßnahmen erreichbar, langfristig in die Produktionsnetzwerke großer Konzerne eingebunden zu werden. Es ist somit kaum als negativ zu bewerten, daß den Entwicklungsländern moderate industriepolitische Spielräume verbleiben, denn unter anderen davon hängt es ab, ob ihre Wohlfahrt in den nächsten Jahrzehnten gesteigert werden kann. Schlußendlich haben ausländische Direktinvestitionen, der Globalisierung zum Trotz, noch nicht einen Intensitätsgrad erreicht, der sie in die Lage versetzt, heimische Anstrengungen ersetzen können. Auch deshalb sollte eine flexible, auf nationale Bedingungen abgestimmte Wettbewerbspolitik in bezug auf die von heimischen Akteuren dominierten Sektoren möglich bleiben.

Die starke Stellung großer, internationaler Konzerne aus den Industrieländern wird durch die industrieökonomische Forschung bestätigt. Große Firmen sind zwar nicht immer führend hinsichtlich Innovationen, sie sind aber zu 'fast-second'-Reaktionen in der Lage, verfügen über große Forschungs- und Entwicklungsetats und können in priviligierter Form Technologien erwerben oder tauschen sie mit anderen großen Firmen. Diese Vorteile internationaler Konzerne aus den Industrieländern lassen sich deutlich an den stabilen und substantiellen Weltmarktanteilen der großen Firmen erkennen. Bestätigt wird ihre dominante Stellung anhand der Statistiken über grenzüberschreitende Direktinvestitionen, die zum allergrößten Teil von internationalen Firmen aus Industrieländern getätigt werden. Aus der Perspektive der Wettbewerbspolitik können solche Vorteile immer auch in problematischer Form eingesetzt werden. Beispielsweise können große Firmen durch die Vorteile, über die sie

verfügen, den Markteintritt konkurrierender Firmen erschweren oder in oligopolistischen Märkten Marktmacht ausüben. An diese Aspekte lassen sich mehrere Gedankengänge anschließen:

Internationale Wettbewerbsregeln sind schon aus Fairnessgründen kaum aushandelbar, weil Industrieländer aber auch Schwellenländer massiv ihre Industriestrukturen durch Umstrukturierungs- und Förderungsmaßnahmen beeinflußt haben. Dies geschah mit dem Ziel große Konzerne zu etablieren. Oft erfolgten solche Maßnahmen zudem vor einer Liberalisierungsepisode. Umstrukturierungen sind also Vorbedingung damit überhaupt Liberalisierung zugelassen wird und ein internationales Wettbewerbsrecht, daß womöglich solche staatlichen oder quasi-staatlichen Einflüsse auf die Wirtschaft verhindert, könnte damit den Fortgang der Liberalisierung, das Hauptziel der WTO, verzögern. Durch Umstrukturierungen entstanden große Unternehmen mit erheblicher Marktmacht, die den Marktzugang für Firmen aus Entwicklungsländern erschwert haben. Diese strukturellen Irreversibilitäten können nur schwer in Verhandlungen mit Entwicklungsländern angegangen werden, wenn diese solche Eingriffe nicht vorgenommen haben und wenn diese über deutlich kleinere Firmen verfügen.

Weiterhin werden die großen Unternehmen der Industrieländern bis heute auf breiter Ebene mit Forschungs- und Entwicklungssubventionen unterstützt. Damit wird dazu beigetragen, daß die Konzerne aus Industrieländern in sämtlichen technisch anspruchsvollen Bereichen über deutliche Wettbewerbsvorsprünge verfügen. An Daten über den internationalen Handel kann dies belegt werden. Solche Eingriffe in Industriestrukturen und die Stützung und Formung der Vorteile der eigenen Konzerne lassen es fraglich erscheinen, ob kleinere, weniger gut ausgestattete Firmen aus den Entwicklungsländern auf derselben Ebene konkurrieren können. Vor diesem Hintergrund erscheint es als unfair, wenn Wettbewerbsbehörden aus Entwicklungsländern Firmen aus Industrieländern in sämtlichen denkbaren Fällen genauso wie heimische Firmen behandeln müssen. Dies würde aber beispielsweise das Prinzip der Inländerbehandlung bewirken. Am Rande: Im Gegensatz zur Meinung einiger Autoren, die die Kampange für ein internationales Wettbewerbsrecht unterstützen, ist es zweifelhaft, ob das WTO-Prinzip der Inländerbehandlung bereits heute auf nationales Wettbewerbsrecht Anwendung findet.

Die Wettbewerbspolitik der Industrieländer läßt staatliche Eingriffe in die Wirtschaft mal mehr und mal weniger explizit zu. Länder wie Frankreich, Südkorea, aber auch Japan sind hier die besten Beispiele. Mal werden Umstrukturierungen faktisch toleriert, mal geschieht dies durch eindeutige, im Gesetzestext festgelegte Ausnahmen, beispielsweise die Ministererlaubnis des deutschen Kartellrechts. In anderen Fällen, beispielsweise der USA, ist dies zwar im Wettbewerbsgesetz selbst nicht vorgesehen, hier kann aber der Kongress eine Ausnahme beschließen. Weniger klar erkennbar erfolgt eine Stützung großer Konzerne in den Industrieländern vermittels der Anwendung des Wettbewerbsrechts. Beispielsweise durch eine tolerante Zusammenschlußkontrolle, die das Entstehen enger Oligopole nicht verhindert. So wird etwa in einer Vielzahl von Sektoren von globalen Märkten ausgegangen und dadurch immer größere Firmenzusammenschlüsse akzeptiert, weil auf diese Weise von ausreichendem Wettbewerb ausgegangen wird. Überhaupt werden nur wenige Fusionen verhindert. Parallel dazu läuft derzeit die größte Zusammenschlußwelle der Geschichte. Weiterhin erfolgt die sonstige Anwendung wettbewerbsrechtlicher Regeln partiell auf großzügige Art und Weise. Durch die weitgehende Akzeptanz vertikaler Beschränkungen wird der Marktzutritt für heimische und ausländische Wettbewerber erschwert, und dies mit einer

umstrittenen Effizienzbehauptung begründet. Im Automobilbereich wurde über mehrere Jahrzehnte ein koordiniertes Preisverhalten zugelassen, das zu hohen Gewinnen führte, obwohl dies durchaus mit dem wettbewerbsrechtlichem Instrumentarium hätte angegriffen werden können. Diese Form der Industriepolitik durch wettbewerbspolitisches Nicht-Eingreifen ist besonders gut für die USA dokumentiert, sie erfolgte aber auch in Deutschland und in anderen europäischen Ländern. Nicht zuletzt hat die durchgängig positive Bewertung strategischer Allianzen durch die Wettbewerbspolitik dazu geführt, daß sich Firmen aus Industrieländern stärken konnten. Aus wettbewerbspolitischer Perspektive wurde zwar vor den ambivalenten Auswirkungen der Allianzen gewarnt und eine viel genauere Überprüfung seitens der Behörden gefordert. Um die eigene Wettbewerbsfähigkeit zu steigern (d.h. die großen Firmen zu stärken) wurden die problematischen Auswirkungen auf den Wettbewerb (höhere Preise für die Verbraucher und unangemessene Machtstellungen) aber zugelassen. Zusammen bewirken diese Aspekte eine Stärkung größerer Konzerne und führen zu Marktzutrittsbarrieren für Firmen aus Entwicklungsländern. Die Wettbewerbspolitik der Industrieländer ist somit weder als neutral noch als rücksichtsvoll gegenüber den Interessen der Entwicklungsländer zu bezeichnen.

Internationale Wettbewerbsregeln sollen vor allem einen verbesserten Marktzugang für die Industrieländer nach sich ziehen. So werden etwa Vorschläge gemacht, die unter anderem dazu dienen sollen, die prekäre Frage nach vertikalen Beschränkungen nicht mit den Entwicklungsländern diskutieren zu müssen. Marktzugang soll danach bewertet werden muß, ob kostengünstige und technologisch hochwertige Güter in die Länder gelangen können. Solche Vorschläge, die ganz allein auf die Bedürfnisse der Industrieländer ausgerichtet sind (es geht eben nicht um billige und technologisch weniger aufwendige Güter, die in unsere Supermärkte gelangen sollen), zeigen, daß Verhandlungen zu internationalen Wettbewerbsregeln keine Sandkastenspiele sind, in dem es um wenige Prinzipien mit diffusen, kaum auszumachenden Wirkungen geht.

Minimale Regeln, etwa ein weltweites Kartellverbot, stehen unter dem Vorbehalt, daß Entwicklungsländern Ausnahmen eingeräumt werden müssen, um mindestens Rezessions-, Spezialisierungs- und Modernisierungskartelle zu erlauben, denn dies gestehen sich auch viele Industrieländer zu. Auch diese Länder haben diese Ausnahmen vom Kartellverbot teilweise zu industriepolitischen Zielen genutzt. Die Definition von 'hard-core'-Kartellen der OECD anerkennt zwar, daß Ausnahmen vom Kartellverbot in den nationalen Gesetzen vorhanden sein dürfen, es ist aber zu erwarten, daß die Industrieländern versuchen werden einen Rekurs der Entwicklungsländer auf solche Ausnahmen vom Kartellverbot weitgehend zu verhindern. Dabei sind gerade Entwicklungsländer starken Nachfrageschwankungen ausgesetzt, etwa als Folge einer Dürre, und sie bedürfen deshalb solcher Ausnahmen. Auch bei einem Minimalansatz besteht das schon oben erwähnte Problem mit der WTO-Streitbeilegung. Wird das Kartellverbot verpflichtend, würden Anreize zu einem weltweiten Informationsaustausch sinken, sodaß die insgesamt positiv zu bewertende Entwicklung einer globalen Wettbewerbskultur gefährdet würde. Weil internationale Kartelle aber durchaus schädigend wirken können, auch auf Entwicklungsländer, ist hier besondere Aufmerksamkeit geboten, damit in diesem Bereich nicht kontraproduktive Ergebnissen erzielt werden.

Summary: Most authors writing on possible international competition policy principles say one or two sentences about the globalization of business activities, consider this as a fact, and then turn to a discussion of principles or even detailed rules for the worldwide harmonization of competion rules. This ignores the fact that national competition policy enforcement without international rules may yield to equally beneficial outcomes. Generally, liberal authors regard competition policies as welfare enhancing and they conclude that worldwide competition rules are an extension of welfare increasing national competition policies. Therefore, there would be no qualitative change if all countries in the world would adhere to the same principles of competition law. The fact that national policies could be unduely restrained by international rules is not regarded as an issue worth talking about, simply because competition is expected to lead to optimal outcomes. Furthermore, it is implied that developing countries use their competition law to unfairly protect own firms. This simplified approach is not shared in this paper.

Summing up the argument, firstly, it does not seem plausible to ignore the issue of structural irreversibilities, artificially produced advantages and market power in this discussion. It is, at least in a considerable number of industry sectors, doubtful, whether firms from developing countries can compete vis-à-vis big international firms on a level playing field, simply because of the size of the latter. Although multinational corporations do not dominate each and every sector of the world economy, they shape substantial parts of it and posses certain advantages. These advantages partially result from government support, for example R&D subsidies. Moreover, big international firms are strengthened both in the U.S. and EU by a lenient merger enforcement, a generally permissive vertical restraints regime, and a tolerant attitude towards R&D cooperation and other phenomena of firm-networking. In addition, government-led reorganizations of industry played an important part in creating big firms in industrialized countries. Therefore, it is misleading to present competition policies of industrialized countries as neutral or liberal. A different, equally justifiable and efficiency enhancing competition policy approach to these issues is possible. Just now the biggest merger wave in history is taking place. In some cases, for example, in the automobile industry the USA and the EU countries have engaged in industrial policy by non-enforcement of competition laws. From the perspective of developing countries this amounts to structural irreversibilities which have the effect to hinder market access because firms from industrialized countries are strengthened. Similarly important is the fact that industrialized countries did not follow a clearcut model of competition policy. Countries follow a diversity of approaches. This could be, for example, shown in the cases of Portugal, Belgium, France, Japan, Canada, South Korea, the EU and the USA. Canada's merger law, for example, has the aim of export promotion and import substitution. It goes without saying that developing countries should be allowed similar flexibilities, as long as the industrialized countries do not modify their policies and the long-term effects of these policies on industrial structures persist. These facts cannot be ignored in negotiations on broad-based global competition rules.

Secondly, the developmental impact of worldwide competition rules is systematically ignored and there is no realistic assessment of the still central role of national firms in national welfare creation and the useful role industrial policy plays. Without any doubt, worldwide principles encompassing non-discrimination, guidelines on mergers, and other aspects of competition policy will constrain options of developing countries for conducting industrial policies. For example, if there are import barriers, a temporary monopoly will not be allowed by

worldwide merger guidelines and it will get difficult to justify tight oligopolies if markets are small, firms are weak and economies of scale cannot be achieved. There are other situations in which special and differential treatment for domestic firms makes sense. To deprive developing countries of these flexibilities cannot be justified, because to a large extent the growth prospects of developing countries in the new millenium depend on the success of a few industrial targeting policies. Moreover, the damage which is allegedly done by ideosyncratic competition policies and other private protection policies in developing countries seems to be exaggerated. There has been no systematic research on these issues and the evidence on private market access barriers presented in U.S. publications and in WTO's working group is episodic and incidental. The simple fact that imports rise after liberalization shows that private market access barriers are not widespread. On the contrary, because it is in their own interest, more and more developing countries implement competition policies and this had already beneficial effects on foreign firms. In general, firms from industrialized countries benefit from industrial policies in developing countries. Futhermore, there is no generally insecure business environment in developing countries. The few exceptions can be solved by diplomatic means and other treaty instruments, for example bilateral investment treaties or cooperation agreements in the field of competition policy.

Thirdly, in the part on international cartels some fundamental lessons could be learned. Cooperation and information exchange is of central importance to fight international cartels. Competition policy enforcement must be strengthened and must be better financed all over the world. First and foremost this should be done in the industrialized countries because most anticompetitive practives are planned and conducted there, having repercussions all over the world. Especially the EU should change aspects of its law in this respect. Instead of doing so, it devotes its ressources to demand worldwide competition rules.

What about minimum rules? The most prominent example for minimum rules is the prohibition of cartelization. One might expect that this is unproblematic because there are sound economic reasons which speak for it. However, a prohibition of 'hard-core'-cartels on international level implies the difficulty that it is not clear what is meant by 'hard-core'-cartels and industrialized countries might have the interest to deprive developing countries from certain exemptions. Thus, firstly, developing countries need broad exemptions, for example concerning specialization and rationalization cartels which they should use according to their own developmental needs. Indeed, developing countries need a crisis cartel exemption more urgently than industrialized countries because they often face problems of demand fluctuation and overcapacities. It is shown in the text that industrialized countries, for example, Japan and Germany, regularly use these exemptions. Secondly, a cartel-prohibition will probably led to a halt concerning information exchange between competition authorities. This will be the result from using the WTO dispute settlement mechanism because it works through the withdrawal of concessions in a case of non-compliance with the rules. A lot speaks against such a mandatory approach because the threat of withdrawal of concession could work in a counterproductive manner. This is why: competition policy authorities will fear that their behavoir might lead to a complaint in the DSB, therefore they will share information only reluctantly, in order to protect their own interests. For example, if they are insecure whether to prosecute a cartel, they usually might ask other authorities if they can help out with information. It is shown below, that such informal information exchange has been very important recently. If the WTO gets involved, it becomes riskier to share

information because then other competition authorities already know part of the story and can later blame them for not enforcing competition laws. Moreover, it is not in the interest of countries to share information about sectors in which cartelization is practiced because those sectors probably try this again in future and investigators from abroad will start to systematically collect information on these sectors to prepare for a WTO dispute. I do not want to dramatize but this scenario is very likely and would be a serious setback for a global competition culture.

To conclude, it is not only my impression that a robust agreement on modalities for information exchange will be the best starting point to spread a global competition culture. It will enhance the efficiency of antitrust policies and help to establish mutual trust between competition authorities. Furthermore, some flexibility for national policies will remain. Thus, the best of two worlds can be etablished. What are they waiting for? OECD recommendations suggest a plurilateral agreement on information exchange among countries. Preparations for simpler information exchange are already in place. In the context of such an agreement, industrialized countries should allow developing countries, on condition they respect confidentiality, to benefit from information exchange on a regular basis.

1. Three simple arguments against global competition rules

Let me start with three simple arguments against worldwide broad-based competition rules, before employing more complex ones, both of which I expect to be persuasive. The focus in this article is on broad-based worldwide competition rules, which might include the principle of non-discrimination and may stretch out to guidelines on merger control and other aspects of competition policy.[1] In the end a comment is given on a more minimalistic approach towards global competition rules.

(1) The first and most fundamental is the following: world welfare is created in national economies, by lifting productivity in all sectors of the economy and in all forms of business. Although international firms, which shape and dominate specific sectors on a worldwide level, contribute to world welfare, their share in welfare creation is still moderate[2] and in developing countries their engagement differs among the sectors of the economy.[3] See Table 1. It is therefore not self-evident that international firms should recieve special treatment vis-à-vis other forms of business, for example smaller firms and national firms. This is the crucial reason, why flexible national economic policies, for example, competition policies focusing on national enterprises and paying attention to national peculiarities, continue to be important for achieving economic growth, even in times of globalization and why international firms do not naturally deserve non-discriminatory treatment in relation to their host governments.

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[1] This attempt to substantially influence developing countries competition rules is pursued in the new WTO round of negotiations, despite a widespread view in the scientific community that it is too early for rules for example encompassing merger control. See: Meessen 2000: 10-11; Wolf 2002; Immenga 1995: 24; Immenga 1996: 605-606; EU Experts Report 1995: 28; Trebilcock 1996: 104-105. The term broad-based competition rules means rules which have direct or indirect repercussions on national merger control and anti-cartel enforcement policies. These competition rules can be affected for example by the application of the principle of non-discrimination or national treatment to competition law, which could mean that domestic firms should be treated in the same manner as foreign firms. This must not necessarily, but can mean that for example certain merger decisions and the criteria relied on in those decisions must be, in similar circumstances, applied on foreign firms in the same manner. Thereby, leeways for national competition policies could be substantially restricted. Such a principle could apply both to merger and anti-cartel exemptions. Moreover, the term broad is understood to include 'guidelines', 'disciplines' or 'protocols', which are mentioned in EU and US papers and which could restraint policy options in the realm of merger control, cartel policy or abuse of dominance. To avoid misunderstandings: the principle of non-discrimination is not always understood in this manner. Sometimes it is used to refer to most-favoured-nation treatment, implying that only foreigners must be treated in an equal manner. Understood in this way, there remains leeway for treating domestic firms in a different manner by competition policy. It is not far-fetched to discuss the possible impact of broad-based competition rules: on the list of EU demands are not only 'guidelines', which should guide court review of decisions, but also access to court reviews for foreign firms and it should be made possible that courts supersede decisions by competition authorities or governments. See for the suggestions of the EU: Trade and Competition: Towards a Global Response. In: http://trade-info.cec.eu.int/europa/2001newround/index_en.php. Or: WT/WTGTCP/W/115, April 1999. See for US thoughts on the subject: ICPAC 2000: Chap. 2, p. 9-10. For a long list of demands concerning worldwide competition rules including national treatment meaning non-discrimination see OECD 2001a: 22-24; 34-39. See for a slightly different recent paper of the EU to which similar comments apply: http://trade-info.cec.eu.int/europa/2001newround/com.htm.

[2] The value of inward stock of FDI, as proportion of the GDP of the host countries rose from 4.7 per cent in 1980 to 8.7 per cent 1993. Arguably, this is not much. The world gross domestic product is $ 23,276 billion in 1993 (=$ 23 trillion), the FDI outward stock amount to $ 2,135 billion, the sales of foreign affiliates of international firms are $ 5,235 billion in 1992. Dunning 1997: 39. In order to make a rough approximation how many sales take place in developing countries, one can relate the sales volume to the 24.2 per cent of FDI, which is invested in developing countries, and learns that 1266,9 billions are sold in developing countries, which have in total a GDP of $ 7,366 billion (1995). Thus, the sales amount to 17 per cent of their GDP, implying that at least 83 per cent of welfare, clearly the biggest part, is still created by domestic firms in developing countries. See for the data Dunning 1997: 42-43, 45; the GDP data are taken from World Development Report 1997: 236.

[3] Dunning 1993: 38-39.

There are further simple reasons why global competition rules especially more complex rules which restrict policy options toward national business should be avoided. This second set of reasons stems from economic theory and practical experiences with economic policy-making:

(2) Economic theory does not give clear guidance concerning global competition rules.[4] In principle, all competition policy interventions in a country affect other trading partners.[5] Even if some decisions of national competition authorities might create negative spillovers in other countries, it remains unclear whether such a decision is unwarranted from a world or, alternatively, from a national efficiency point of view.[6] In principle, a lot of different scenarios are possible: a decision in one country can improve national welfare to such an extend, that this compensates trading partners, who benefit from expanding markets, for negative spillovers. Such a decision could be justified by the global welfare increase it induces. [7] If there are negative spillovers which are not compensated for, a reasonable decision, taking into account other countries interests, but focusing on national welfare might help to make negative spillovers moderate. Cooperation might lead to better results from the perspective of aggregate world welfare, if negative effects on tradings partners are bigger than the domestic benefits.[8] Although it can be shown in models that cooperation in merger cases might in some instances lead to better result, the specifications used, are not realistic.[9] All in all, effects are difficult to quantify[10] and empirical evidence is scarce.[11] Under these circumstances it is difficult to propose general rules to improve decision-making. The only undisputed fact is that national competition policy enforcement is deemed to be welfare enhancing and that it is a necessary complement of a progressively liberalizing world economy.[12] To put it more clearly: National competition policy enforcement, without interference from outside, might well be the 1st-best solution from both a world welfare and a national welfare point of view. In addition, it is argued below that national competition policy enforcement must not follow standard operating guidelines in order to increase welfare but may employ a diversity of approaches. In small countries, for example, it might be unavoidable to allow concentrated markets in order to benefit from economies of scale. Here other incentives, for example making certain privileges dependent on export success, can compensate for less intense domestic competition. Thus merger control in developing countries (and in small industrialized countries) may rightfully disregard principles, which guide decisions in bigger countries. In other words, restrictions on competition policies of developing countries may neither be good for the developing countries themselves, nor necessarily in the interest of industrialized countries welfare, so why demand it?

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[4] WTO 1997: 38-39; 52-53. In addition, it is mentioned that a convergence of views is taking place. But this convergence is only "partial". See WTO 1997: 39. Other authors stress the same point ambivalences in economic theory, but nevertheless conclude that these insecurities should be regarded as "details", and that it therefore still makes sense to pursue harmonization of competition rules through "very broad principles". See for this not very persuasive argument: Fox/Ordover 1997: 412.
[5] WTO 1997: 53.
[6] WTO 1997: 30.
[7] These points are mentioned in or logically follow from: WTO 1997: 30, 52-53.
[8] WTO 1997: 30.
[9] Using a relatively abstract model it can be shown that under certain circumstances cooperation in merger cases leads to better results. Interestingly, this model excludes extraterritorial application of competition laws, which is provided for in most competition laws. Therefore the results are of limited value. WTO 1997: 54.
[10] WTO 1997: 53.
[11] WTO 1997: 55.
[12] WTO 1997: 31, 42-49.

Practical experiences with economic policy-making in the last few decades suggest that a certain degree of flexibility in economic policy making does not hinder economic growth. Many states around the world have benefitted from this, on condition that this flexibility is not used to severely damage other economic interests, but is used with the aim to enhance domestic capabilities and to strengthen the competitiveness of domestic firms. This was one key ingredient to the success of the GATT in the years after Second World War. Flexibility, for example, concerning subsidies was tolerated for more than four decades without considerably slowing economic growth and endangering the core principles of the GATT. The problem was not flexibility as such, but the excessive and contrary-to-their-own-interests use of flexibility on the side of the industrialized countries, for example in the field of agriculture, textiles, certain tariff peaks, antidumping measures and VERs.[13] Be that as it may, flexibility necessarily entails the option for nations to make discretionary decisions, which might sometimes hurt economic interests in other countries. Moreover, these decisions might give reason for tensions in international relations. This cannot be completely ruled out in the field of competition policy. Nonetheless, it would be wrong to overemphasize these tensions. It is openly acknowledged that there is only scetchy evidence on private anticompetitive practices acting as market access barriers, most of which are observed in high-tech sectors of industrialized countries.[14] In the WTO Working Group on the Interaction between Trade and Competition, industrialized countries (and very few developing countries, like Argentina) mentioned own antitrust cases to show that private measures affect market access. These cases show, first and foremost, that industrialized countries can successfully deal with abuses of market power, like abuse of dominance and domestic and international cartelization. Furthermore, developing countries, like Argentina, use antitrust policies because it is their own interest to prevent abuses of dominance to keep their prices low. Conclusive and systematic evidence concerning the relevance of private market access barriers between industrialized and developing countries is not provided.[15] In general, the growth of international trade, especially the growth of trade

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[13] On the other hand, developing countries were sometimes not prepared to use liberalization for their benefit and deprived industrialized countries' firms of opportunties. Nevertheless, in some instances import substitution policies can be called a success and the GATT enabled countries to choose this developmental strategy.

[14] In ABA Private Anticompetitive Practices (2000) some cases are mentioned but these cases mostly concern high tech sectors in industrialized countries, like airbus or computer reservation systems for airlines. Often Japanese practices are critized, for example, buying practices of Japanese firms and customers in the field of electronic, semiconductors, and automobiles. Concerning developing countries it is mentioned that Korean and Indonesian car makers maintain exclusive buying relations with autopart suppliers. Such relations can be maintained in industrialized countries too. A government approved refusal to deal is reported from Mexico's soft drink industry. Although it is concluded that private anticompetitive practices matter in impeding market access, it is conceded that business has divergent views on this subject. See: ABA Private Anticompetitive Practices 2000: 9, 12, 17-18. The OECD acknowledges that it has not carried out sustained work on this topic. OECD 2001a: 13. And a senior OECD official stated "[i]t is often said that as trade barriers decline, private anticompetitive practices become a more important and more pervasive restriction on market access. The OECD's trade and competition work has failed to turn up a large body of convincing evidence for that hypothesis, but it continues to examine the question". In: ICPAC 2000: Chap. 5. In this important U.S. report it is highlighted that the relevance of private barriers to market acces is "a matter of debate". Business representatives stress that government measures remain most important and that most problems can be dealt with by domestic legislation. Only some segments of the business community consider private market access barriers as a problem. ICPAC 2000: Chap. 5.

[15] See for example Report of the Meeting of 11-13 March 1998. WT/WGTCP/M/4: paras. 21-46. Sympthomatic is the statement from the World Bank representative, in para. 36: "The observer from the World Bank said that it would be useful to have more information on the question of whether the incidence of anti-competitive practices affecting international trade was greater: (i) among developed countries; (ii) between developed and developing countries; or (iii) among developing countries. Although systematic empirical evidence was lacking, the Bank's experience tended to confirm the third possibility (i.e. that such practices were most prevalent between developing countries)." See furthermore the related communications from USA:

after liberalization, speaks forcefully against the thesis that private market access barriers in developing countries hinder exports from industrialized countries.[16] Despite flexibility, serious tensions were few in GATT history and could mostly be related to some sensitive issue-areas, like agriculture.[17] Moreover, tensions became a matter of GATT's everyday life and 'diplomatic' and conciliatory steps were provided and still are by the WTO[18], including competition law issues.[19] Thus, it does not follow from this experience that tensions can only be calmed down by clearcut worldwide rules and principles. Ironically, a good example is competition policy itself, with its relatively informal cooperation agreements which have been evolving between the major industrialized countries[20] recently stretching out to developing countries.[21] Here states retain their sovereinty, but with a strong bias towards cooperation and the comity principle.[22] These agreements work well because in merger cases for instance with

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WT/WGTCP/W/66; EU: WT/WGTCP/W/62; Argentina: WT/WGTCP/W/63; Turkey WT/WGTCP/W/77; Japan: WT/WGTCP/W/68.

[16] In Brazil the 1989 trade surplus of 9.8 billion US$ turned into a 2.6 billion US$ trade deficit after liberalization. Tariff rates declined from a simple average of 32.2 per cent in 1990 to 13.1 per cent in 1996. During this period of time all import penetration ratios have been showing a substantial increase. On average, import penetration increased from 1989 4.8 per cent to 1996 15.5 per cent. Especially imports of capital goods from industrialized countries rose: For example industrial equipment and machinery, including parts from 13.3 per cent 1989 to 48.9 per cent in 1996. Similarly high increases are achieved in electronics and communications equipment, chemicals resins and fibres, fertilizers, chemicals and compounds, agricultural machinery and equipment. In certain other fields imports penetrations ratios double, for example, electric power equipment, motors and vehicle parts, pharmaceuticals. See Moreira/Correa 1998: 1862-1865. This does not indicate serious market access barriers.

[17] Admittedly, from the point of view of developing countries which were not in the position to create serious tensions, some more tensions can be mentioned: textiles and clothing, all kinds of manufactured products and for example steel. In these fields, it would have been no problem for the industrialized countries to open their markets. They refused to do this, simply because they were stubborn, not for reasons of clever and welfare enhancing economic policy.

[18] See for the 'diplomatic' aspects see Hudec 1970; for important role of consultations, sometimes even multilateral consultations see Benedeck 1990: 244-245.

[19] Siehe: Restrictive Business Practices. Arrangements for Consultations. Decision of 18. November 1960. BISD 9S/28-29, 1961. See for further discussions the report in the same issue BISD 9S/170-179, 1961. A proposal to formally include restrictive business practices into the GATT was dismissed in 1955. BISD 3S/239, 1955. See for further discussion and references Hoekman/Mavroidis 1994: 137-139; Garcia-Castrillión 2001: 102. Consultations according to the 1960 Decision were requested by the USA and the EU concerning Japanese photographic film and paper policies (parallel to the Japan – Kodak Panel). Japan similarly requested consultation concerning business practices in the photographic film and paper field in the USA. See documents: WT/L/154, WT/L/158, WT/L/180. See WTO 1997: 57.

[20] There are many cooperation agreements between industrialized countries. Most important is the EU-U.S. cooperation. For example the first version of the EU-U.S. Agreement on the Application of their Competition Laws. In: 30 I.L.M. 1487 (1991). Latter versions of this agreement are available on the Internet.

[21] For example the U.S.-Brazil cooperation agreement. See: OECD Brazil 2002: 30. And the agreement between Chile and Kanada: OECD Chile 2002: 5. A short overview on EU's bilateral competition policy activities is given in Bellamy/Child 2001. Although the EU tries to persuade developing countries to accept EU-like competition law, its efforts are not really successful. For example Mexico accepted only positive comity and cooperation. Notably, in more broad based EU cooperation agreements, f.e. with Morocco, Turkey and Tunisia references to Art. 81 and Art. 82, the cartel prohibition and abuse of dominance provision, are included, but there are no provisions on how to implement these rules. Bellamy/Child 2001: 147-151. South Africa is an interesting case, because here too Art. 81 and Art. 82 (In Art. 35 a), b)) are included and consultations are provided for. These consultations take place in case of damages to the interests of both parties by anticompetitive practices. It is stressed, that South Africa must to adopt a competition law, which it already has. Interestingly, concerning subsidies the EU in Art. 41 accepts South African subsidies, if they are granted in pursuit of state policy objectives (without prejudicing a possible recourse to WTO subsidy rules). OJ 1999 L 311/1, 4.12.1999.

[22] Himelfarb 1996: 913-925, 939-942; a discussion of the IAEAA, which enables the USA to engage in cooperation and information exchange, can be found in Shank 1996: 176-189. See: United States: International Antitrust Enforcement Assistance Act of 1994. In: 43 I.L.M. 494, 1995. See for overview on positive comity and its principles: ABA Private Anticompetitive Practices 2000: 36-44.

wordwide repercussions it is not unlikely that sovereign authorities come to similar conclusions.[23] And if not, the misjudgement of one authority can still be replaced and compensated for by the other, which in the end leads to reasonable results.[24] This latter option remains because the extraterritoriality principle enables the EU, the U.S. and other authorities to decide unilaterally on matters which happen in other jurisdictions and in some way or another affect their own.[25] Thus it is not extremly far fetched to put forward the thesis that some sort of global merger control plus anticartel enforcement is already in place, at least concerning the globalized markets in the industrialized countries.[26] A structure which could be complemented by the developing countries and their sometimes newly adopted competition laws.[27] This might make threats of extraterritorial application unnecessary in the future. Admittedly, this argument is far-fetched, but U.S. courts have acknowledged that there is no 'conflict'

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[23] See for example the positive evalution of EU-U.S. cooperation from an EU perspective in: Bericht der Kommission an den Rat und das europäische Parlament: KOM (97) 346 endg. July 4, 1997. In an overview on conflicts, 7 of 12 recent antitrust cases with an international conflictual dimension were or could have been solved by cooperation (2 were not but could have been easily solved by cooperation). In the remaining 5 cases there were either complicated norm conflicts in the insurance industry (Hartford Fire) or mergers with an industrial policy bias where other countries' authorities seem to have rightfully intervened. Kleinert/Klodt 2002: 85. Surely, extraterritorial application may create conflicts on its own. But it could be argued that the problematic effects are not as grave as the options for problem solving which can be attributed to it. There are quite a few authors who conclude that the effects doctrine is sufficient to solve international antitrust disputes. For references and a discussion of problematic cases see Klodt 2000: 2.

[24] There are only two cases, where EU authorities have not agreed on a merger evaluation of their U.S. counterparts. This is the Boeing/McDonell Douglas case which the EU-Commission accepted under U.S.-pressure, after some remedies were offered. And the recent GE/Honeywell-case, where the EU refused to authorize it. Arguably, a closer look shows that the EU-Commission's analysis is more plausible than that of the U.S., thereby, from a birds-eye-view, replacing that of the U.S. See: Wirtschaft und Wettbewerb 11/2001: 1125-1148.

[25] The scope for extraterritorial application of competition laws and unilateral decision-making is far reaching for both U.S. and EU competition authorities and courts. For the USA only in theory it is mitigated to a certain degree by the Timberlane "rule of reason comity analysis" and its two or more tiers test which allows sanctions on external conduct on condition that the effects are "direct, substantial and foreseeable" and an assessement has been made whether international positive comity concerns should better be respected. See for U.S. and roughly similar EU approaches Himelfarb 1996: 923-925, 939-342; for more test criteria see Shank 1996: 174. Realistically seen, U.S. courts will probably favor national interests when making such an assessment. Shank 1996: 185, 188. The USA can challenge foreign anticompetitive conduct, if it has effects on both its exports and imports and if cartels, group boycotts, and other exclusionary practices are involved. Shank 1996: 165, 172. This goes rather far, because when effects on export commerce are considered, this may stretch out to conduct taking place in other countries. See Rill/Goldman 1997: 177-180. In the Nippon Paper case the USA tried to expand its extraterritorial enforcement to criminal jurisdiction. This led to considerable tensions with Japan. ABA Private Anticompetitive Practices 2000: 32-34. On the other hand it seems, that U.S. enforcement is limited to cases, where personal jurisdiction exists, i.e. there is related business activity in the USA. If not, this was the case involving conduct of the British Telecom, who bought stakes in the U.S. firm MCI, it gets more difficult. All in all, it might be the case, that the USA has more difficulties to challenge foreign mergers with domestic effects than the EU. Jacquemin 1994: 55. This might be one of the reasons why the USA decided to engage in cooperation with foreign antitrust authorities. This conclusion is put forward by Shank 1996: 173. Other authors stress the unilateral options the USA still retain, but even there it is acknowledged, that the USA is interested in comity too. Rill/Goldman 1997: 182.

[26] See for example Hauser/Schoene 1994: 217-219, further references to authors maintaining this position in Klodt 2000: 2.

[27] In 1997 there are 26 developing countries with competition laws and 19 countries from Eastern Europe. Countries which plan the adoption are not mentioned and furthermore the Eastern European countries are not mentioned because they are well-known: Here the list with dates, when the law went into force: Argentinien (1980), Brazilien (Revision 1994), Chile (seit 1973, Revision 1980), Kolumbien (1992), Costa Rica (1992), Jamaica (1993), Mexico (1992), Panama (1996), Peru (1990), Venezuela (1991); Afrika: Algerien (1995), Elfenbeinküste (1978), Gabun (1989), Kenia (1994), Mali (1992), Südafrika (1955, Revision 1980), Tunesien (1991), Sambia (1994); Asien: (China 1993), Fiji (1993); India (1969), Pakistan (1970), Südkorea (1980), Sri Lanka (1987), Thailand (1979), Taiwan (1992). See WTO 1997: 46. In the meantime there was a revision in South Africa in 1998, in force 1999: OECD South Africa 2002: 2. In some of these countries competition laws were introduced under pressure of the IMF. For example in Indonesia and the Ivory Coast: See for Indonesia Fox 2000: 589; for Ivory Coast: OECD Ivory Coast 2002: 2. Thailand refused to accept the advice of the World Bank concerning its competition law: OECD Thailand 2002: 4. Malaysia maintaines sectoral rules and has no formal, all encompassing competition law: OECD Malaysia 2002: 2. Vietnam and Egypt plan the introduction of competition laws. In Egypt a draft of the law already exists. OECD Vietnam 2002: 3-4; OECD Egypt 2002: 2.

between U.S. and foreign laws, if the laws are similar and business complies with either of the systems of law. If one follows this logic and successfully shows that U.S. competition policy allows for tolerance concering certain practices, it would make no sense to blame other countries for doing similar things.[28] Arguably, the issue of unilateral enforcement is a much more low key issue than was Sec. 301 in the beginning of the 1990s.[29] Interestingly, Sec. 301 was amended and stretches out to competition policies of other countries but the record shows that it has rarely been used in this respect.[30] This supports the thesis that trade policies not competition policies act as market access barriers and that the WTO should concentrate on bringing down these barriers first.[31] Thus, a flexible way of decision-making already exists, which is not totally devoid of mechanisms which help to avoid extremely damaging policies. Last but not least: An important part of international competition law already exists: namely, WTO subsidy (and countervailing) rules and, of more unclear importance, the NV N&I-option in WTO dispute settlement (see for subsidies Indonesia-Automobiles and competition law Japan-Kodak[32]). A short comment concerning the Japan-Kodak case: it is by no means clear that this case is a precedent for an already existing applicability of the 'national treatment' principle (or non-discrimination) on national competition laws.[33] Moreover, other WTO agreements contain rules which reach out into the realm of competition policy. In

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[28] The degree of conflict is an important factor in the assessment whether extraterritorial application is considered. If there is no conflict because other countries apply competition laws in roughly the same manner, in principle no problems arouse. Shank 1996: 174. This argument is far-fetched because it is likely that U.S. courts will emphazise the differences to other countries competition laws. On the other hand, if one accepts the critique of U.S. competition policy in the text below, there is no need for extraterritorial application of U.S. law at all, because the antitrust law of the foreign country need only be roughly similar to U.S. law to fit into the criteria of the courts ("to comply with both standards"), because the U.S. application of antitrust laws, for example in the field of merger control or vertical restraints arguably is replete of cases where the own standards are ignored. Thus, if the courts are honest, they must provide some leeway for foreign conduct too. See for short description of the Hartford Fire case, without support for this argument Shank 1996: 174. For further evalutation of Hartford Fire, interpreting it as giving comity considerations a "reduced status" see Rill/Goldman 1997: 176.

[29] Unilateral actions which interfere with competition policy decisions of developing and other countries will be used under some circumstances. Notwithstanding, they are reluctant to use this instrument because of the tensions connected with it. Furthermore they admit that it is often difficult to collect evidence on foreign anticompetitive conduct. See Executive Summary: U.S. Enforcement to Gain Market Access: In: ICPAC 2000. On the other hand there are recent cases which led to considerable tensions, for instance the Nippon Paper case. Here the U.S. government tried to criminally prosecute a cartel which took place in Japan. See ABA Private Anticompetitive Practices 2000: 32-34.

[30] Only in 1 out of 82 cases an affirmative finding was made relating to the competition clause of the Sec. 301. In 2 other cases competition policy issues were discussed but the argument of the petitioners was not accepted. The affirmative finding aims at Japanese public procurement practices in the field of architectural, engineering, construction and consulting services, a field which is only recently incorporated into competitis traditionally viewed as a matter of glovernment procurement policy. In the Allied-Signal Inc. case, Japanese firm allegedly refused to buy superior amorphous metal transformers. Here a settlement was negotiated. Lastly, P&M Cedar products argued that Indonesian policies concerning vertical restraints in the logging and processing sector hampered the firm's pencil slat and small wooden boards production. In this latter case, USTR found that other factors, for example, exchange rate movements, played a far more significant role. See for an overview of these cases Finger/Fung 1994: 383-387.

[31] Palmeter 1994: 420-421; Blackhurst 1994: 224, 227.

[32] NV N&I means non-violation complaints. See for a description of this option: Hoekman/Mavroidis 1996: 42-44. Hoekman/Mavroidis 1994: 140-143. See the case on governmental measures affecting competition: Japan – Measures Affecting Consumer Photographic Film and Paper. WT/DS44/R, 31. March 1998. See for a Panel report on subsidies: Indonesia - Certain Measures Affecting the Automobile Industry, WT/DS54/R, WT/DS55/R, WT/DS59/R, WT/DS64/R, 2. July 1998. Since then the subsidy rules have changed for developing countries. Since the deletion of Art. 6.1 of the WTO-SCM agreement (see Art. 31 SCM) nullification and impairment of benefit GATT-case law applies to subsidy disputes with developing countries, probably supplemented by some SCM provisisions. Although this provides more flexibility than before the leeway for subsidies is not unlimited. China has not acceded to WTO as developing country in this respect.

[33] Authors who pretent that this problem has already been solved and national treatment applies to competition policy, should be more careful. This advice applies to Garcia-Castrillión 2001: 105-106. Although other authors discuss a possible applicability too they do not come to a clear solution whether national treatment applies to competition policy. See the detailed discussion of

the GATS competition policy rules are included and there are sectoral agreements with competition policy elements, for example the Agreement on Basic Telecommunications.[34] Furthermore WTO's TBT and SPS agreements cover technical and food-related standards help to ensure that they are not used to counteract the effects of tariff concessions and thus these agreements fulfil competition policy functions.[35] Antidumping rules cannot be regarded as elements of a worldwide competition policy, because the criteria used in antidumping procedures differ from those employed in the investigation of predatory pricing practices in competition policy.[36] Consequently, the WTO already provides some far-reaching rules which prevent unfair competition. Lastly, recent bilateral investment treaties (BITS) have gone further than 'prompt, adequate and effective compensation' because they include principles that ensure that investments are protected from discretionary policies. This is done, for example, by including the principle of 'fair and equitable treatment', implying "the right to carry out his business activity free from unreasonable and discriminatory measures".[37] In other treaties it is stipulated that the party will maintain "favourable economic and legal conditions for investments and to abstain from adopting unjustified or discriminatory measures which might damage the managing, keeping, using, disposing, transforming and the liquidation of an investment."[38] In some investment treaties even particular conduct is mentioned, for example, it is demanded that freedom of contract should be respected and that access to raw materials and to energy must be provided.[39] Although these standards do not seem to explicitly touch competition policies, this will influence politicians to abstain from damaging policies, thereby guaranteeing a predictable

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GATT case law touching competition policy issues in Hoekman/Mavroidis 1994. Admittedly, the United States mentioned in its Sec. 301 determination in the Japan - Kodak case anticompetitive conduct. But in the dispute settlement case only positive measures were discussed. Most of these alleged Japanese promotion measures which did not directly relate to competition policy. A few measures of the FTC are shortly discussed by the Panel, but not in a systematic manner, and it is concluded that they did not touch market-access conditions. In reactions it is concluded that this case does not touch competition policy enforcement at all. See Komuro 1998: 182, 215-216. If one moreover takes the statements of the GATT Contracting Parties against the inclusion of competition policy into the GATT into account, the situation must, at least, be regarded as unclear. See Footnote 19. More generally, not in direct reference to national treatment, other authors affirm, that NV N&I covers restrictive business practices. Hoekman/Mavroidis 1994: 140-143; Hoekman/Mavroidis 1996: 42-44; Hoekman/Holmes 1999: 7. Thus, for example, if really gross distortions are actively created by competition policies, the NV N&I mode might still provide an option to challenge this. For criteria which are used in these cases, f.e. "alter the competitive conditions", "measure could not have been reasonably expected" see Hoekman/Mavroidis 1994: 140-143. In a NV N&I case the DSB cannot demand a measure to be abolished. But it can demand the negotiation of a mutually acceptable solution, which might imply compensation. Textually, it is ambivalent whether the DSB has anything to do with negotiations on compensation. See the text of the DSU. No comment on this issue is given in Hoekman/Mavroidis 1998: 44.

[34] In GATS Art. VIII. Members are obliged to prevent monopoly suppliers from abusing their monopoly position, for instance if they contravene against the MFN principle. GATS Art. IX provides for consultations on restrictive business practices. The GATS Decision on Commitments in Basic Telecommunications focuses for example on access to essential facilities. These agreements cannot be discussed in detail here. See: http://www.wto.org.

[35] WTO 1997: 57. This is stressed in ABA Private Anticompetitive Practices 2000: 6, 59-63.

[36] Pierce 2000: 731.

[37] Here it is referred to the Dutch Model Law of 1994. Sacerdoti 1997: 346. The EU in its ACP treaties has included a 'fair and equitable treatment' passage, in Art. 258 (b), and it is explained what is meant by it: "all rules and practices affecting an investor's interest be transparent, predictable and non discriminatory. This standard refers implicitly to basic principles followed by countries abiding to the rule of law, namely transparency of investment conditions, non discrimination, legality, proportionality, non retroactivity of law and respect for international law." Sacerdoti 1997: 344.

[38] This quote refers to an Italien BIT with Russia (1996). In U.S. BITs the clause 'full protection' is recently used, which arguably implies protection from dangers such as riots and it might cover national treatment. The meaning of national treatment is not clearly defined. Sacerdoti 1997: 346. In a model U.S. BIT it is mentioned that "[n]either Party shall in any way impair by unreasonable and discriminatory measures the management, conduct, operation, and sale or other disposition of covered investments". Moverover, not only measures with direct but also with "indirect" effects may amount to expropriation or nationalization. Lastly, "fair and equitable treatment" is mentioned too. See: International Investment Instruments 1996: 197-198.

[39] Sacerdoti 1997: 355-355.

business environment. Another comment on the principle of national treatment (or non-discrimination): The national treatment is mentioned in some of these treaties and is generally regarded as relevant in this context, but it is not clear what is means. It is mentioned, for example, that specifically procedural fairness is covered by national treatment.[40] And it is still taken for granted that certain activities continue to be reserved for nationals and that monopolies persist in certain sectors without including specific exceptions for this.[41] National treatment is not included in some BITS, for instance to ensure that state enterprises still receive special treatment.[42] In treaties between industrialized countries national treatment is mentioned more often but this principle sometimes appears to be ignored, for example when privatised entities are sold.[43] Last but not least it is not clear whether non-discrimination means most-favoured-nation treatment or national treatment.[44] For these reasons, BITS cannot be regarded as precedent concerning the application of national treatment on competition policy. However, these different policy elements show that policy maker's flexibility is constrained and investments are protected in a substantial manner. All in all, it is not extremly urgent to create international competition rules and there are many different forms of cooperation which can be sought.

(3) Thirdly, liberalization is at stake, if broad-based global competition rule restrict leeways for government intervention. Liberalization usually does not take place without a restructuring of national industries. The economic history of European countries, of Japan and Korea, or, as a brand-new example, China shows that liberalization typically goes along with a reorganization of industry. Restructuring, with different degrees of government influence, creates bigger firms, often smaller firms are integrated into the bigger entity and modernized. The aim is to improve the structure of the economy. This often means that mergers are allowed which significantly increase concentration in an economy, especially if the countries are small. In Europe the formally subsidised and regulated steel industry was regrouped into bigger units[45], France created big firms (in the short period while they nationalized these firms in the beginning of the eighties) in the field of data processing, consumer electronics[46] and the chemicals industry (with side-payment schemes to close down inefficient producers).[47] In Japan

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[40] Sacerdoti 1997: 344.

[41] Sacerdoti 1997: 348.

[42] For example in BITS with China: here state enterprises still receive special treatment and foreign investments are guaranteed access to ressources, freedom of contracting, right to licenses. Sacerdoti 1997: 349.

[43] Sacerdoti 1997: 352-353. National treatment furthermore led to substantial disagreements in the negotiations on the multilateral investment treaty under auspices of the OECD. Sacerdoti 1997: 350-352. In a U.S. model BIT national treatment is mentioned in Art. II "each Party shall accord treatment no less favorable than that it accords, in like situations, to investments in its territory of its own nationals or companies". In Art. II 2 (a) exceptions are provided for. See: International Investment Instruments 1996: 197-198.

[44] Sacerdoti 1997: 288.

[45] Here big national firms were created, notably Usinor Sacilor (merger in 1987), to which nearly the whole steel industry in France belongs to. Other big firms are ILVA, which had a 50 per cent market share in Italy (after the privatization of parts the share is down to 33 per cent) and British Steel. Wienert 1995: 304-305. Not to speak of the DM 115 billion (roughly $ 50 billion) subsidies between 1975 and 1985 which were paid for modernizing and capacity reductions in the European steel industry, without leading to a satisfactory outcome in capacity scrapping. Krägenau 1986: 55.

[46] Since then CII-Honeywell Bull was regarded as responsible for data processing technology, Thomson for consumer electronics, and Matra and Thompson for electronical components. Franzmeyer et al. 1987a: 110-112. CII-Honeywell Bull's establishment was subsidized by the French state. See Hall 1986: 189-190. In the 1970s 13 of the 20 largest firms were state-owned in France. Hall 1986: 204. In 1981 a sum of 3.5 per cent of GDP was used to subsidize industry. Hall 1986: 209-210.

[47] Chang 1994: 69. The regroupings in the heavy chemicals and pharmaceuticals industry are stressed in Hall 1986: 208-209.

reorganizations took place in the steel, shipbuilding and other industries.[48] In Korea the government enforced mergers and forced firms to exit and to specialize in various industries.[49] China's WTO accession was accompanied by massive consolidations, for instance in the chemicals and steel sector, under government supervision.[50] Russia's automobile industry will not survive import competition, if firms are hindered to merge and capital is not pooled, even if some firms already collaborate with their Western counterparts.[51] Should restructuring be prohibited because some foreign direct investment projects moderately suffer from it? Should foreign firms be empowered to stop it by giving them right to appeal certain merger decisions of governments or competition authorities? Is it not a legitimate means to enable domestic, often weak firms, to compete on a level playing field with foreign competitors? The outcome would be absurd: the WTO as engine of liberalization would give in to rules which hinder liberalization in its most basic and fundamental form i.e. the lowering of tariffs. Closely related to this point is the fact that in times of economic crisis restructuring can be a useful tool to save parts of the domestic economy and to prevent social costs. During the Asian Crisis the competition authority of Korea played this role and the outcome had nothing to do with common expectations about competition policy: the Chaebols had to exchange production facilities and had to agree on specialization, whereby in some fields, f.e. Samsung in electronics and Hyundai in automobiles, the players grew much bigger and the structure of the economy ended up even more concentrated than before.[52] Even if one rightfully argues, that massive concentration will not automatically lead to an efficient outcome, the case for a justified strengthening of domestic industries remains, especially in smaller developing countries. There reorganizations provoke an another important question: how can industrialized countries negotiate with developing countries about, for example, guidelines for merger control, which may stop restructuring, if the industrialized countries and certain NICs have already undergone corporate restructuring and have been enhancing the market power of their firms. How should countries be treated which have not yet been engaging in these activities? Should developing countries or transition countries get credits for their own restructuring efforts in the future? Should credit be given for competitive industrial structures or for not having carried out restructuring?[53] In the literature, this precarious issue involving structural irreversibilities, artificially produced advantages, and market power induced by firm size is largely ignored. How can one negotiate in such circumstances? In the few instances where this issue is mentioned it is acknowledged that it has always been regarded as the sovereign right of a nation to choose the structure of its economy. Not rules, but a dialogue on these questions is suggested.[54]

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[48] Iwasaki 1988: 504-504; Yamawaki 1988: 299-302; Yonezawa 1988: 439-440; Peck et al. 1988: 230-234. More below in the section on Japan.

[49] Chang 1994: 122. More below in the section on Korea.

[50] The large steel works are restructured and modernized, partially with help from the government, which is subsidizing this process with 6 billion US$. The chemical industry is to a large extent dominated by Sinopec, the petrochemical giant. Not all of the smaller firms can be added to this firm. Hermanns 2001: 286.

[51] The following automobile companies operate in Russia: AvtoVAZ, Moscvich, GAZ, ZIL, KAMAZ, UAZ, ChTZ, IZHMASH, UralAZ, LIAZ, Nizhnecamskshina. These are clearly to many firms. See 'Report on Automobile Industry of Russia and CIS, December 1998, which was found by using an internet search engine: http://www.fipc.ru/fipc/reviews/auto.html. I have not idea on who is responsible for this information. Some of these firms have alliances with firms from industrialized countries. Kang/Sakai 2000: 24.

[52] Seliger 1999: 579.

[53] See concerning the idea that credits should be given in the context of tariff negatiations: Matto/Olarreaga 2000.

[54] Fox/Ordover 1997: 427.

2. Towards more complex arguments

This fundamental insecurity on who has to deliver in negotiations on competition policy reminds of another field of controversy which admittedly is no longer really simple. Some of the following points are explained in detail in the sections below. Usually, developing countries are blamed for not providing market access, for rendering tariff concessions null and void, in this case, because they use lax competition policies allowing private market access barriers. They are blamed for unfairly refusing to provide market opportunities for firms of industrialized countries. Why not asking the industrialized countries the same question, namely if their industrial and competition policies and the de facto enforcement of those policies do unfairly and unjustifiably damage developing countries' interests and favour domestic firms? Ironically, a significant part of the debate on competition policy started off some years ago with the insight that industrialized countries employ competition policies which, at least partially, prevent market access and damage other industrialized countries interests and that they use competiton law for industrial policy purposes ("system friction").[55] In these discussions, developing countries were not mentioned, although it was self-evident that they suffer from these policies, too. Similarly, in suggestions on new worldwide competition laws problematic aspects of industrialized countries competition laws (and the corresponding strategies of big firms) are not questioned.[56] It is acknowledged, for example, that vertical restraints can have anticompetitive effects (that is, they make market access more difficult for firms from third countries) and the US law is judged as most permissive. Nevertheless, it is concluded that the US approach should be regarded as a minimum consensus model.[57] This not very convincing[58] chain of arguments illustrates that industrialized countries want to retain their competition laws even if their impact on developing countries is problematic. It sounds polemic, but is reality: notwithstanding these facts authors complain about the difficulties of "the leading US biscuit manufacturer" of getting market access to Columbian markets, because a big firm there uses vertical restraints as well.[59]

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[55] Ostry 1997: 29.

[56] For example in the Draft International Antitrust Code concerning vertical restraints like exclusive distribution arrangements or competition enhancing cooperations between firms a rule of reason approach is suggested. This is roughly similar to U.S. practice (and some parts of EU practice). Moreover, R&D and other forms of cooperations are not explicitly dealt with. It is nevertheless implicitly suggested, that such practices should be allowed to stimulate innovation. Here a more critical approach could have been chosen: See the DIAC in Fikentscher/Immega 1995: 29, 76-78. Admittedly, some of the suggestions go further than usual competition policy approaches, for example, it is demanded that vertical restraints like exclusive dealing contracts should not deny access to an "input or outlet market". Such a provision could enhance market access not only for developed but also for developing countries' firms. See: Fikentscher/Immenga 1995: 78. Nevertheless, there are only few aspects in this code, where a more detailed balancing of interest of developing and developed countries can be read into.

[57] See for the argument presented above: Fox/Ordover 1997: 412, 424. More arguments on this subject are presented below.

[58] Absurd in the sense, that no middle-ground is looked for and that an anticompetitive status quo is accepted, which arguably is conveying advantages to firms, which other firms have not and those firms perhaps will not benefit from this in future. Especially since there are historic irreversibilities, a harmonization of competition laws following a minimial level approach is not likely to yield a fair outcome. In part 4.3 it is shown that EU's new approach might be more middle-ground.

[59] Admittedly, the Columbian firm is regarded as dominant firm. But try to imagine how big the leading US biscuit manufacturer is. Then consider, that the US competition law tolerates exclusive distribution agreement and only in rare cases, these agreements are challenged. Even in case of monopoly an exclusive distribution agreement might be allowed by antitrust in the USA if consumers benefit and prices are not too high. See part 4.3 on vertical restraints. In the case of Columbia it might simple be necessary for U.S. firms to build up own retail networks, which costs a lot, to enter a market. But this is exactly what foreign firms must do, if they want to enter the U.S. market. In the example of the Columbian bisquit market, the US firm does not even try to build up an alternative distribution networks, to make the market competitive again. Instead, they first complained, then entered into licensing and joint marketing agreements with Columbia's big firm. This example tells a lot about the determination of firms to compete under free market conditions and it tells a lot about penetrability of thirld world markets: If big firms from industrialized countries want to participate, they usually find ways of doing it. Still they expect, that they come to a developing

Especially in the field of vertical restraints, competition policy experts are getting impatient with unjustified market access demands for instance by U.S. firms (who simply complain, that offers were rejected or access to distribution systems denied), because in the USA similar restrictions are allowed.[60] Moreover, it makes sense to take a closer look on the factual activities of competition authorities in industrialized countries. The US competition authorities, for example, admit that the *per se* prohibited price related vertical restraints were *de facto* not prosecuted in the 1980s, although this makes collusion easier.[61] To be sure, there are more aspects which can be critized. Export cartels are widely criticized for their negative impacts on third states but are still tolerated by major industrialized countries.[62] Moreover, by allowing R&D cooperations firms are strenghened vis-á-vis other firms, sometimes with effects similar to a merger, but no proper assessment of competitive effects is made in industrialized countries, at least until recently. Another comment on non-enforcement of competition law in industrialized countries: if one accuses developing countries of "strategic dumping" which is defined as "extracting profits from a closed home market"[63] one must ask industrialized countries whether they follow practices with similar effects. Surely, it is more visible if developing countries maintain tariff protection, for example on cars, which can increase profits of the firms there. On the other hand industrialized countries' tolerance of parallel pricing and extensive information exchange in the automobile industry (= under certain circumstances this amounts to non-enforcement of competition laws) has profit enhancing effects comparable to the effects of a closed home market: it strengthens industry and in this sense prevents market access, for example for automobile producers from developing countries. Concerning the issue of non-enforcement and EU's demand for an international ban on cartels, it is worth mentioning that in some countries in Europe, for example Belgium and the Netherlands, widespread cartelization was allowed and price controls were established until the beginning of the 1990s. It is likely that this record of non-enforcement helped a considerable number of firms to increase their profits to supracompetitive levels, thereby strengthening domestic industry. Not to mention the many exemptions from competition law which have been allowed by the EU or Japan, among them crisis cartels and specialization cartels. Of course, there are criteria by which exceptions are evaluated and not all of them are unreasonable. Still, these exemptions have strenghened firms, for instance in cases when there were overcapacities in concentrated markets.[64] Moreover, due to the de minimis approach of the EU smaller firms (big if compared to some firms in developing countries) are strengthened, because with a EU market share of 5 per cent they are immune from competition law prosecution.[65] Consider merger law: Mergers increase market power and in principle the world

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country and immediately the supermarket shelfes are cleared from domestic products in order to be reserved for them in the future. See for the bisquit example: Khemani 1998: 146; for the U.S. vertical restraints law see Hovenkamp 1999: 436-439. On even more clear words on U.S. practice in this respect see ABA Internationalization 2000: 21.

[60] "The concern of competition policy, of course, is that the United States should not argue to foreign governments that they should condemn private business practices which, if conducted in the United States, would not be condemned under current U.S. antitrust law." See: ABA Private Anticompetitive Practices 2000: 68-69.

[61] Calkins 1998: 210. See below for more information on vertical restraints.

[62] More on this in the text below. See for example concerning U.S. experience Dick 1992.

[63] In the USA a law was suggested which entitles US firms to receive damage payments, if foreign competitors engage in below-cost pricing and benefit from market access barriers. Senator Howard M. Metzenbaum introduced this International Fair Competition law employing the concept of 'strategic dumping'. Ostry 1997: 33.

[64] See the part on EU and Japan below for more information.

[65] These are firms whose aggregate annual turnover is not allowed to be more than 300 million Euro, and the EU market share must not exceed 5 per cent. In the newest Commission notice, the turnover criterion is dropped and for horizontal agreements 5 per cent market share and for vertical agreements 10 per cent market share is regarded as de minimis threshold. Nevertheless, the EU Commission will interfere especially if per se prohibited provisions are used and "if the agreement affects a substantial

(that is, other countries) can be better exploited (by price-raising and foreclosure effects) by a newly created entity, if a certain degree of market power is reached.[66] Thus it would be entirely appropriate to demand from industrialized countries to justify merger decisions with impacts on globalized markets vis-á-vis developing countries.[67] This can be supported by basic principles of international law: it can be argued, that a merger control authority should not solely focus on domestic effects but that it should take into accout effects on third states. This is plausible, if mergers have impacts on globalized markets and the negative effects on third countries are likely to be concrete and readily forseeable. In such a case, the least restrictive (=damaging) measure should be chosen and it could be tested, if cooperation with other authorities can help to overcome problems.[68] In the discussion this is ignored. On the contrary, it is suggested that the developing countries should not hinder mergers by making own investigations. Indeed, it is argued that it would speed up merger review processes, if they accept decisions (and remedies) imposed by an industrialized country competition authority.[69] It is shown in detail below that competition policy in industrialized countries is increasingly tolerant towards mergers, although it is acknowledged that mergers can create market access problems for other firms and other countries.[70] Generally, mergers are seldomly challenged in industrialized countries. France employed a permissive merger policy and was reluctant towards implementing competition policies. Less well known is Portugals industrial policy and permissive antitrust policy. Canada has the option to approve mergers using a efficiency defense which relies on the criteria of export promotion and import substitution. Both the USA and the EU allow a lot of mergers in industries which are relatively concentrated and the spread of tight oligopolies is not stopped. Considering that in these cases big markets are involved, this implies that firms evolve which are much bigger than firms from developing countries. This tolerant attitude is maintained inmidst the biggest merger wave in history. See Table 2. It is argued below that big firms already have more market power and certain advantages vis-á-vis smaller firms. Therefore is must be carefully assessed whether global competition rules are designed to establish a priviledged status for large globally operating enterprises.[71] Another important issue is transparency: it is often impossible for outsiders to evaluate if decisions of competition policy authorities have reasonable effects. This is certainly true in complex rule of reason weighing exercises, when anticompetitive effects and efficiencies are counterbalanced because the public has no access to the relevant information.[72] The USA does not publish its merger decisions, only if there are court cases the public gets access to information. The EU publishes their merger cases, but the market shares are erased and some important Art. 81 cases remain embargoed. Furthermore competition policy does not (or in the EU only half-heartedly) stretch out to other aspects of economic policy making which substantially shapes advantages of firms. R&D subsidies, for instance, can strengthen the market position of firms and mostly big firms from industrialized countries benefit from this. Seen from this perspective, it is not very persuasive to

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part of the relevant market or if competition is restricted by the cumulative effect of several similar agreements". Immenga 1998: 123.

[66] Fox/Ordover 1997: 426-427. Firms may want to pre-empt or neutralize competitors' strategies, they want to use market power in foreign markets to deter entry and raise prices. Dunning 1997: 50.

[67] Here it is suggested that countries at least should provide a justification for policies with negative external effects on other countries. Fox/Ordover 1997: 417.

[68] Meng 1991: 1376-1377; see for roughly similar references to principles of international law: Immenga 1996: 597.

[69] ICPAC 2000: Chap. 2.

[70] OECD 2001a: 62.

[71] Ullrich 1998: 74.

[72] Calkins 1998: 213-214. The same point is made by Ullrich 1998: 73.

demand a level playing field for firms from industrialized countries by including non-discrimination or national treatment into global competition rules. Consider the telecommunications industry in industrialized countries: its R&D efforts were subsidised and it benefitted from closed and concentrated markets and partially from government ownership and international cartels. For long-distance calls, it maintained cartel-like arrangements which provided with $ 10 to 20 billion more income on a yearly basis.[73] These cartels were not challenged by competition authorities of the industrialized countries. Seen from this background one may ask whether it is an example of another failure of developing countries' support policies that Brazil did not succeed to build up its own digital-switching industry. It had already succeeded in developing the technology and the products, when the decision was made to liberalize and to stop R&D support.[74] Can this really be understood without regarding industrialized countries' multidimensional support policies?

Another point can be added: industrialized countries' competition policy enforcement ends at its borders. This means that business practices, for example concerning patent licensing, with anticompetitive effects on world markets are prohibited in their internal markets but are allowed in contracts with developing countries' firms. Only if there are direct or indirect repercussions on domestic commerce, antitrust authorities can challenge them. However, this occurs rarely.[75] Especially the USA goes very far in allowing patent-holders to exploit their assets[76] which has worldwide repercussions. This is not inevitable. Nonetheless, industrialized countries refused to take action in this realm and blocked negotiations on a code of conduct concerning the transfer of technology, which included rules touching these problems.[77] Although it is compatibel with TRIPS to prohibit some 'hard-core' provisions in licensing, now a competition test (a development test was rejected) is stipulated, implying that other problematic restrictions are allowed without time limits in contracts with developing country firms (for example cross-licensing, restrictions on production volumes, territorial restrictions).[78] Lastly, in a considerable number of cases authorities in industrialized countries failed to notice (and it is still not mandatory to consider this issue in the investigations), that firms demanded antidumping duties to shut off regional markets in order to protect international cartel arrangements.[79] See Table 3.

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[73] The ten biggest suppliers for telecommunication services obtained 64 per cent of the world markets. See for this and the evidence on cartels. Roobeek/Broeders 1993: 275-277.
[74] Of course, this story is much more complicated. To some extent foreign firms were involved. Moreover, there was political influence on this process, which hindered for example AT&T which was not present on the Brazilian market to sell its products. Nevertheless, Alcatel, NEC, Ericsson and Siemens, who bought firms and built up a presence on the Brazilian markets and who later bypassed the Brazilian pace of technological innovation by importing their products all benefitted from their close relations to telecommication firms in industrialized countries. Mytelka 1999: 119-134.
[75] Bellamy/Child 2001: 217; Burkhardt 1995: 26.
[76] For instance the acceptance of cross-licencing is criticized. Scherer 1994: 58-59. The EU admits that the U.S. approach is allowing more restrictive provisions only in case the parties of an licensing agreement do not compete. In case they are competitors there are more similarities to the EU approach. See: EU Commission evalutaion transfer of technology block exemption 2001: 18-20.
[77] Full name is: Draft International Code of Conduct on the Transfer of Technology. In 1993 it is clear, that "conditions do not currently exist to reach full agreement on all outstanding issues in the draft code of conduct". See UNCTAD TD/CODE TOT/60, 6. September 1995.
[78] See for negotiation history Timberg 1981: 84-138; Stoll 1994. It is very simple to treat developing countries better in this context. For example time limits can be provided for 'hard-core' restrictions or clearly damaging restrictions. For example restrictions on production volume could be put on a international black list.
[79] See: OECD 1996g: 9, 17.

Last but not least, competition policies have complex effects on an economy and they are usually guided by a set of purposes (efficiency, consumer welfare, intensity of competition, stimulation of innovation, protection of small firms, equity, constraining private economic power).[80] No one has ever tried to build competition rules which focus on market access. This is simply not the function of competition rules. Now market access (and investment protection) is what the industrialized countries demand.[81] This led to a considerable confusion in the competition policy community[82]: Why? Because trade policy and competition policy focus on different things and this provokes questions of principle. Trade policy concentrates on market access, competition policy, among other aims, on efficiency. In order to achieve efficiency competition policy accepts private conduct which restricts market access, most prominently in the realm of vertical restraints, like exclusive dealing or tied-sales.[83] Now authors, who want to defend the competition policy approach towards vertical restraints in industrialized countries, argue, that this not necessarily leads to conflicts, because both trade policy and competition policy aim "to improve the efficient allocation of ressources".[84] Why is this argument misleading?[85] Because competition policy authorities do not focus on market access of foreign firms when making their assessments on vertical restraints. In principle, they tolerate vertical restraints which exclude foreign and new domestic competitors from the market, as long as competition between domestic firms is not substantially lessened by these measures. Thus, they do not regard efficiencies which result from exposure to international trade.[86] Even more important is, that the criteria employed to assess the intensity of competition in the domestic market are for example output increases through a more widely dispersed dealer network.[87] Thus, in practice, the efficiency test is a crude test which focuses on already established domestic firms which are allowed to strengthen their market position by using vertical restraints as long as other domestic firms remain and do the same. Although in some cases this might yield efficiency effects, in some instances, it may not. Thus, competition authorities miss certain aspects of efficiency and it is not convincing to ignore this fact by stating that all this can be subsumed under the label of efficiencies. This might hurt foreign firms and there are no proper economic reasons for this. Consequently, the weighing of different sources of efficiencies gets really complex. It is for example concluded that "[a]s yet, there is no empirical

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[80] See WTO 1997: For the trade-off between welfare promotion vs. extreme concentration see Kantzenbach/Kallfass 1981: 112.

[81] For the industrialized countries competition rules are the final frontier of non-tariff market access barriers. The second motive is the protection of foreign direct investments. See OECD 1996e: 11; OECD 1996f: 25-28.

[82] See Marsden 1998; ABA Private Anticompetitive Practices 2000: 22-25, 68-72.

[83] See for example WTO 1997: 56.

[84] Marsden 1998: 9.

[85] This argument seems to be mentioned to support the permissive U.S. approach to vertical restraints which in some instances led to market access problems for foreign firms but is justified by efficiencies created by interbrand competition.

[86] This assessment focuses primarily on the national sphere. The trade policy perspective, which is "concerned about the foreign competitors that are excluded" is not adopted. Marsden 1998: 9. It is not considered if a domestic or foreign supplier "offers a technologically competitive of superior product at a price lower than the favored domestic sellers." ABA Private Anticompetitive Practices 2000: 25. See in similar vain the WTO Secretariat: "the criteria commonly employed by competition authorities in 'rule of reason' cases may make relief more difficult to obtain in cases involving foreclosure of access for foreign supplies and suppliers. … This is because, in weighing costs and benefits under the rule-of-reason, enforcement actions relating to vertical restraints may not take into account the adverse effects of such restraints on foreign producers." WTO 1997: 56. See furthermore ABA Private Anticompetitive Practices 2000: 22-27.

[87] Hovenkamp 1999: 479. Other even more pragmatic arguments are used to legitimize vertical restraints which have nothing to do with proper economic theory. It is even assumed that it is of advantage for customers to know that dealers serve a limited territory. Hovenkamp 1999: 481. Only if a firm has exceptionally high market power the courts may interfere. Hovenkamp 1999: 480. Even if firms have market shares of 30 till 40 per cent, other factors are regarded which might led to an acceptance of the nonprice vertical restraints like exclusive dealing. Hovenkamp 1999: 437-438.

evidence that vertical restraints are more trade restrictive than they are efficient".[88] Is there really no empirical evidence? Consider the automobile industry in the USA. Arguably, in this case the competition between domestic firms was not intense, the outcome was not efficient and concentration was high. Some more competition from outside would have been good.[89] Nevertheless, vertical restraints were allowed imposing considerable costs on foreign firms which were forced to build up a network of independent dealers. Even if the law might not be completely in favor of exclusive dealing[90], it was not challenged as far as the automobile industry is concerned.[91] In the automobile sector more and more dealers were bound by contracts requiring them to sell only one brand. In 1960 only 20 per cent of the dealers had such a contract. Until 1995 the share rose to 78 per cent.[92] This increased entry barriers to foreign competitors which were forced to build up own comprehensive distribution networks: f.e. VW and Nissan created independent dealer networks (aside: the USA successfully pressurized Japan to let their dealers sell American cars[93]).[94] Arguably, in this case, vertical restraints were more trade restrictive than efficient. But what about other cases? Both in industrialized and in developing countries there are certainly instances in which vertical restraints have positive effects on the performance of domestic firms, when market shares are not that big or small firms are strengthened by exclusive contractual relations.[95] And there are certainly examples where trade can lead to more efficient outcomes. Be that as it may, it remains problematic to demand from developing countries market access while industrialized countries do not modifiy their vertical restraints laws. Thus, firstly, it is neither persuasive to argue that all vertical restraints improve efficiency or competition nor to argue that all have problematic effects. Secondly, because industrialized countries allow it, it follows that developing countries have the similar right to use vertical restraints to promote domestic interbrand competition even if this has problematic effects on market access for firms from industrialized countries. Thirdly, for these reasons it does not seem persuasive to suggest a different set of criteria to solve market access problems. These criteria might disregard developing countries' vertical restraints needs. They might be drafted in order not to question vertical restraints in industrialized countries, those with positive and those with negative effects on market access for developing countries. And they might in other respects be biased against developing countries. For example, the American Bar Association suggests a so-called competition based approach. It stipulates that when "the U.S. producer shows extensive or systematic market preclusion (not isolated instances), where the excluding companies taken together have sufficient market power, and where the presence in the market of the U.S. company would add a significant competitive dimension (a new technology, a demonstrably superior product, a substantial cost advantage), there is justification for investigation that could lead to a "rule of reason" finding of a substantial lessening of competition".[96] This approach is expected to avoid conflicts with current U.S. competition policy concerning vertical restraints. Two comments on this: first of all, the automobile

[88] Marsden 1998: 9.
[89] See part 4.1.1. in this text. See for various other reasons for the comparably less intense competition like fleet policy etc. and the generally non-efficient behavior of the U.S. automotive industry Adams/Brock 1990: 117-121.
[90] Marsden 1998: 18-19.
[91] Marsden 1998: 18-19.
[92] Quoting from an unpublished study of F. M. Scherer. See: Marsden 1998: 19.
[93] Iyori 1998: 248. See Foreign Vehicle Dealership Market Access Plan in: Japan - United States Automotive Agreement. In: 34 I.L.M. 1482, 1995.
[94] Marsden 1998: 18.
[95] See part 4.3 in this text.
[96] ABA Private Anticompetitive Practices 2000: 70-71. For further suggestions on global market access rules in this respect see the suggestions of Eleanor M. Fox in part 4.3.

example showed that it is not really true that the USA will never receive a complaint under this rule. Secondly, these criteria are biased towards industrialized countries because of their superior technological capabilities. A developing country, which produces a low cost product which is not superior and not technologically new will not have the right to complain if it is excluded from industrialized countries' markets. All in all, this suggestion shows that it is unlikely that industrialized countries will make concessions in this field.[97] Still they are prepared to demand access to developing countries' markets.

All in all, from the point of view of developing countries it can be said that competition policy of industrialized countries, together with other support policies, is in a considerable number of instances used to protect the interests of its domestic firms and acts as a non-tariff barrier to market access of firms from developing countries. It would not be a desirable outcome of a fair and balanced negotiating process, if developing countries give in to rules which allow better access to their markets and the industrialized countries retain their problematic rules. In this sense it is true, that enforcement and non-enforcement of competition law can act as barrier to market access and can hinder the development of a liberal world competition and trading system.[98]

3. Industrial policy

3.1 Industrial policies in developing countries

Equally important in the discussion of global competition rules is the fact that governments in developing countries try to create and support 'national champions' (a roughly similar meaning has the term 'industrial targeting'). This means that investment is encouraged in certain high profit sectors in order to increase national income.[99] Nowadays, such policies differ remarkably from earlier forms of developmental policies. Instead of implying broad protection and systematic import substitution, only a small number of industries are promoted and these policies are usually accompanied by progressive liberalization.[100] These policies are constrained by WTO subsidy rules, therefore subsidy policies cannot go into extremes any longer. Still, on a moderate level there may be options to promote domestic firms. And in some cases this might imply a departure from a neutral competition policy. Admittedly, competition policy rules or the non-enforcement of rules can be used to convey advantages and it is not completely unlikely that developing countries use this instrument to provide advantages to their firms.This option should not be treated as a taboo and should be discussed in a straightforward, but differentiated manner.

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[97] See for example the following quote: "It seems unlikely in the extreme that competition policy officials - in the United States or other countries - could accept the proposition that an analysis that finds no substantial lessening of competition in the domestic market must be modified to take into account adverse effects on foreign competitors." ABA Private Anticompetitive Practices 2000: 26.

[98] In the article to which it is referred to here, it is pointed out that both enforcement and non-enforcement of competition law can be an obstacle to liberal world competition. This is of course meant in the way that harmonization of competition laws should be the aim. Nowhere it pointed out that industrialized countries should change their policies, because they may damage developing countries' interests. Admittedly, this possibility is not completely ruled out, when considering the theoretical framework this article develops. See: Fox/Ordover 1997: 411.

[99] See: Frischtak et al. 1989: 17.

[100] See for example: Jwa 1999: 25-28.

First of all, it must again be pointed out that industrialized countries do carry out industrial policies too and they shape the advantages of their multinational firms in a perceptible manner, for example by subsidizing R&D, for example circa ECU 633 million for the European automobile industry from the EU budget between 1989 until 1994.[101] More on this below. In addition, they use direct subsidies. It is estimated that the European automobile industry has been subsidized with ECU 26 billion between 1977 and 1987. Between 1989 and 1993 there were 21 cases under regional subsidy schemes with a volume of ECU 4,8 billion.[102] This substantially enhances the advantages their firms already have on world markets. Moreover, in some industrialized countries the state plays an important role in the economy. See Table 4 and Table 5. For example, banks are state-owned like the developmental banks in developing countries.[103] Furthermore, industrialized countries' competition authorities in many cases pursue industrial policy objectives, for instance through a permissive merger control and lax competition policy enforcement.[104] In sum, not only developing countries carry out industrial policies. For these reasons, it is doubtful that firms from developing countries can compete on equal footing with firms from industrialized countries. Most advantages provided are equalled out by the advantages multi-plant or multinational firms from industrialized countries already possess, simply because they are so big. The latter advantages are discussed in more detail below. Therefore some support for firms from developing countries might be acceptable from the point of view of establishing a level playing field. Now broad based competition rules could constrain developing countries industrial policy options even more.

Secondly, in nearly all of the cases multinational corporations from industrialized countries will benefit from industrial policies in developing countries. Often they are directly involved in the creation or management of an industry, for example as joint venture partner. Alternatively, they engage in turn-key projects and longer term consulting projects, they license technology and are selling higher quality production inputs. In most of the modern industrial sectors development of competitive industries is no longer possible without the involvement of firms from industrialized countries.[105] Thus as a general rule, interests of firms from industrialized countries are not damaged by industrial policies in developing countries, despite in some exceptional cases. Moreover, it is unlikely that extremely unfair policies will be used to damage foreign investors, since it is in the self-interest of developing countries to let them build up a strong presence in their country. Furthermore, through diplomatic channels and other treaty obligations, for example in BITS, enough pressure can be build up, making obviously unfair policies unlikely to occur in such a number in developing countries, that this might be an argument for

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[101] Rosenstock 1995: 301.

[102] Rosenstock 1995: 271, 294.

[103] In Italy and Austria state firms account for a substantial percentage of value added in manufacturing. See for a general overview Parker 1998: 11. A lot of the recently privatized entities at least in Europe are owned by state banks which in turn are under influence of the state, like the developmental banks in the developing countries. For example in Italy and France nearly all banks were state-owned. In some industrialized countries, notably France (Renault) and Spain (Seat), the automobile industry was state owned and state subsidized. Some of the state enterprises have been starting to invest abroad and thus became state-owned multinational enterprises. See Table 3 and Table 4.

[104] See the discussion of U.S., EU, Japanese and Korean policy below. In general, authors admit, that for instance merger control is closely intertwined with industrial policies. Immenga 1996: 605.

[105] Especially those sectors of industry which stand behind the effort to establish worldwide competition rules, do enjoy a powerful bargaining position, because f.e. in automobiles, telecommunication, computer industry, consumer electronics, chemicals, pharmaceuticals, machine tools a purely indigenous development effort is not likely to be successful nowadays. They will therefore, normally, not suffer from outrightly discretionary government policies.

international competition rules. Example: A policy reversal in the Chinese telecommunications policy led to compensations for telecommunication equipment firms from industrialized countries.[106] On the contrary, developing countries may even wish to give a better treatment to foreign investors to ensure supracompetitive profits for a certain period of time to strengthen the firm. In order to even out the powerful bargaining position of the international firms, developing countries usually offer priviledges, and these privileges can relate to non-enforcement of competition policy rules, for example if the country tolerates a dominant position of foreign investors. Worldwide competition rules can, if broad enough, weaken the bargaining position of developing countries in such a case.[107] All in all, a considerable move to liberalization has been taking place in developing countries, providing business opportunies for industrialized countries firms on an unprecedented scale. Investments are not unprotected and firms do not really face insecure business environments in developing countries.

Thirdly, providing shelter and support cannot necessarily be regarded as destructive or simply be categorized as rent-seeking policy. By enabling growth strategies for example by allowing certain mergers, technological capacities can be developed and welfare can be created (this is even acknowledged by World Bank authors[108]). Notably, Michael Porter (1993), who is often quoted with his emphasis on the link of vigorous domestic competition and competitiveness (which implies the equation: liberalization and worldwide standardized competition policy enforcement = best for competitiveness of all firms and nations)[109], provides a relatively diversified view of this field in his research on conditions of economic success. This supports the view that a more flexible approach towards competition policy (f.e. in the merger or cartel field) might be warranted and that industrial polices might actually yield welfare benefits. He accepts that governments can play a role beyond upgrading factors of production, capital, human capital, infrastructure and technological capacity.[110] It is acknowledged that in an early investment-led stadium of development it makes sense to provide capital, subsidies and protection for selected industries.[111] He mentiones, that all countries in the world employ some sort of industrial targeting. While saying that this is not necessarily successful, he describes situations in which this was successful[112] and the opinion is maintained that the state has the task to support the development of specific capabilities and technologies.[113] It is concluded that it is most promising to focus on the creation of industry clusters.[114] This view reminds of the findings of Chenery et al. (1986), that a higher degree of integration of the economy and a certain importance of manufacturing in a countries' welfare creation is the key ingredient for

[106] This event took place in 2000. China Unicom Close To Settlement With Foreign Investors. The country's second-leading telecom company has concluded successful talks with France Telecom, Sprint and First Pacific after earlier disputes blocked its bid to go public. See: http://www.chinaonline.com.

[107] This argument against global competition rules is presented by Malaysia in OECD Malaysia 2002: 2.

[108] See Frischtak et al. 1989: 17. See below for some conditions mentioned.

[109] For example by WTO 1997: 47. Admittedly, the argument in this arcticle is formulated in a more cautious manner then it is presented here which surprisingly supports the view which is taken here.

[110] Porter 1993: 694.

[111] Later, in the innovation-led stadium the role of the state should get minimal and competition laws should ensure vigorous competition between private actors. Porter 1993: 690.

[112] Here the success of Korean steel and shipbuilding is mentioned. The support for machine tool industry has not been working so well. Porter 1993: 692.

[113] Porter 1993: 693. In this respect Porter (1993) is even comparable to the approach of Sanjaya Lall. See Lall 1987; Lall 1990; Lall 1992, Lall 1995b; Lall 1999c,

[114] Porter 1993: 673.

growth and export success.[115] It also deserves to be mentioned, that Porter criticizes the fact that industrialized countries tolerate big firms' dominate certain sectors.[116] Even more relevant in the present context is that it is mentioned, that the governments can actively push and challenge business to provoke a competitive response.[117] It seems that here the South Korean developmental model serves as example, where the state (and not the market) artificially created an environment that stimulated innovation and competition and moreover larger, technologically advanced firms were established. In South Korea neither a standard approach to national competition policies nor worldwide competition policy rules or liberalization was needed to achieve growth. [118]
In his research on competitiveness and its interrelatedness with the regulatory environment Mytelka (1999) supports the thesis of different aspects affecting competitiveness by showing that there are various factors, which create competitive pressures leading to innovation, not only liberalization and functioning markets, but for instance state incentives and learning from others. Moreover, there are various factors which create a demand pull or supply push.[119] See Table 6. This insight has already been confirmed for industrialized countries, where a clear correlation between demand-pull and innnovations can be established.[120] For these reasons, the view that only vigorous domestic competition between many firms or competition through international trade flows improves the competitiveness of firms is simplified (aside: here are similarities to the equally simplified view that liberalization is sufficient to enhance competitiveness).[121] More sceptical (and more liberal) authors accept this approach in principle, but add, that support and promotion of a national champion should be temporary, for example 3 to 5 years and that there should be no discrimination against new entrants and that import competition should not be blocked in an extreme way.[122]

One aim for industry promotion in developing countries is to achieve economies of scale. It is a long accepted fact that, on the one hand, scale-related cost advantages of firms yield welfare benefits for society. On the other hand economies of scale boost firm size and this might lead to concentrated markets even in industrialized countries. In concentrated markets coordination between firms becomes easier and this often leads to higher prices, thereby reducing welfare. This swing of the pendulum can be called the central dilemma of competition policies, which has the aim to promote effiency and welfare from the point of view of society.[123] Be that as it may, for developing countries it is important to achieve scale economies, especially if they are able to use other incentives which force firms to behave competitively, in order to avoid the negative effects of concentration. For example, before foreign markets could be conquered, in 1984 in Korea there were 2 car producing firms with an output of 159000 cars in

[115] For example export expansion becomes much more likely if manufacturing reaches 30 per cent of output. Chenery et al. 1986: 192-193.
[116] He mentiones USA, Italy, Sweden, Switzerland and Germany. Porter 1993: 681.
[117] Porter 1993: 699.
[118] How this worked is shown in part 4.14 on South Korean development.
[119] Mytelka 1999: 21. This view is supported by research on firm-level productivity comparisons. Not only competition, but technology as such and the range of possible product choices affect the performance of companies. Solow/Baily 2001: 168.
[120] This correlation is impressive in the realm of manufacturing, particularly in the field of capital goods production. See: Scherer 1982: 236.
[121] This argument has some similarities with the literature showing that liberalization can lead to different, sometimes passive and submissive, responses from domestic firms. In response to this, it is concluded, that liberalization should be accompanied with diverse measures to support industry and could be carried out in a progressive manner. See for example the research on the reaction of African firms on increased trade exposure in Lall 1999a; 1999b.
[122] Frischtak et al. 1989: 17.
[123] Kantzenbach 1994: 296, 295-302.

total. This number was well below the minimum efficient scale for automobile production and implied cost-disadvantages of 20 per cent against a scale-efficient production of 250000 units of one model. One of the firms was able to reach the, by developing country standards, high production number of 39000 because it focused on the mass production of one model (Hyundai's Pony).[124] This clearly shows, how small markets disadvantage producers in developing countries. It certainly would have been much more difficult for South Korean firms to become globally (cost-)competitive, if there had been 4 firms producing a complete model range, because then the production numbers would have been much lower. Thus, the decision of the government to prevent entry of too many firms was reasonable at this point of time.[125] In this context see furthermore the recent example of Indonesia's automobile industry in point 3.2 below. Now the bigger industrialized countries are in the favourable position that their markets are so big that even in cases of extreme scale economies, for example, two or four cost-efficient production units fit into the market.[126] Consequently, competition between at least two firms can be maintained. Nonetheless, without exports (and import competition and regional integration), the degree of concentration in the markets of industrialized countries would be much more visible. Exports allow firms to increase their production volumes without increasing shares in their home markets.[127] All this makes it easier for the competition policy authorities in bigger industrialized countries to preserve basic tenets of antitrust policy, while allowing for maximum exploitation of economies of scale.[128] For similar reasons, it is not surprising that both developing countries and smaller industrialized countries, for example the Scandinavian countries, Belgium, Portugal or Canada (see for more information below[129]), have an interest to employ a more tolerant merger policy. As a substitute for the non-existent domestic production (and competition), in small industrialized countries, imports are used to (price-) discipline domestic firms.[130] This, however, implies that the firms have become competitive. If not, some shelter and support (and performance incentives) may still be warranted. In this respect there is not much difference between Scandinavia, Canada, South Korea or India.

In what kind of industries scale matters most? Here firstly estimates of scale economies relating to the German market are presented (for 1984)[131]: For trucks, tractors, combine harvesters, motorcycles, fridges, colour TV, videocassette recorders, electronic typewriters and cigarettes three and even fewer production sites were needed to supply the domestic market. This means that the presence of more firms would lead to a less-then-optimal outcome. Ten or fewer firms reached minimum scale economies in automobiles, tyres, digital switches, oil products, basic chemicals and steel.[132] In some instances, however, cost disadvantages were not extremely big (between 5 and 10 per cent), if firms produced at 1/3rd of minimum efficient scale.[133] It follows that, in principle,

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[124] See for the last three sentences Fischer/Nunnenkamp et al. 1988: 74-77. Afterwards these contraints became less compelling, because of the success on the American market.
[125] See part 4.14 on South Korea.
[126] This is, of course, a rough summary of the findings presented in Monopolkommission 1984/1985: 231-269.
[127] Kantzenbach 1994: 297.
[128] Kantzenbach 1994: 295-296; Immenga/Mestmäcker 1992: 785.
[129] See part 4.
[130] And they should not hinder firm growth by fragmentation measures. Although I do emphasize some aspects more, essentially the same points are made by Scherer 1994: 61.
[131] See Monopolkommission 1984/1985: 231-269. Here an overview about other estimates is provided.
[132] Concerning motorcyles, tractors and combine harversters the domestic market is not big enough for the firms to enjoy minimum efficient scale. Monopolkommission 1984/1985: 31.
[133] Monopolkommission 1984/1985: 31.

somewhat smaller production units could survive, if clever business strategies are followed. Nevertheless, the abovementioned estimates confirm the existance of scale economies, especially in mass production markets where small cost-advantages matter. For many developing countries and their smaller markets this implies that in certain sectors (oil products, chemicals, steel, automobiles, consumer electronics, household goods) firms will inevitably act in a monopoly or tight oliopoly industry structure at some point of time.[134] If one looks at scale estimates made for the United Kingdom in 1983, in only 3 industry categories minimum efficient scale leads to an output which amounts to 100 per cent of total consumption. In 8 cases minimum efficient scale production implies that one firm supplies 60 per cent of the Britain's market. Furthermore, there are 24 industry categories where cost efficient production leads to firm's output shares of 20 per cent. See Table 7. This seems to be acceptable from the point of view of antitrust, because competition between a certain number of firms can be maintained, while allowing economies of scale to be exploited. Now consider developing countries which have a gross national product which is 20 per cent that of Britain (US$ 455 bill. 1983): 20 per cent of US$ 455 bill. is US$ 91 bill.. Roughly, countries of this size are, in 1983, South Korea US$ 76 Mrd., Argentine US$ 71 bill., Indonesia US$ 78 bill., furthermore Sweden US$ 91,8 bill., Austria US$ 66 bill., Belgium US$ 80 bill. It follows that firms which have a 20 per cent market share in Britain, will obtain a monopolistic position in these smaller countries and there are already 23 industry categories (of 45 categories) where this is likely. Larger developing countries like Brasil US$ 254 bill., China US$ 274 bill. have a gross national product which amounts to roughly 50 per cent of United Kingdom's (US$ 227,5 bill.). In those bigger countries only in 8 categories clear monopolies can be expected: large turbo generators, electric motors, refrigerator and washing machines, steel, titanium oxide, detergents, cellulosic fibres. However, the majority of developing countries and some developed countries have a gross national product which is, in 1983, only 10 per cent that of Britain (US$ 45,5 bill.): Columbia US$ 35 bill., Turkey US$ 47 bill., Egypt US$ 27 bill., Thailand US$ 40 bill., Malaysia US$ 40 bill., Greece US$ 30 bill., Hong Kong US$ 27 bill., and Finnland US$ 49,3 bill., Ireland US$ 18 bill.. In these countries in 34 of 45 industry categories a cost efficient output would lead to a 100 per cent (and monopolistic) market share. In addition to these scale-advantages, there are other advantages big, so-called multi-plant firms have vis-a-vis their smaller counterparts. This makes it even more problematic, if global competition rules inhibit the growth options of developing country firms.

These findings give support to arguments of Singh/Dhumale (1999) who maintain that maximum competition should not necessarily be sought in developing countries, but an "optimal degree of competition".[135] Moreover, they mention "simulated competition" as an alternative to a liberal policy.[136] They furthermore claim that an "optimal combination of competition and co-operation" and "government co-ordination of investment decisions" might lead to superior outcomes.[137] In order to protect "freedom of manoeuvre" for developing countries, they

[134] Gillis et al. 1996: 100, 492-495, 503-504. "In developing countries, economies of scale (the decline of unit costs as output rises) may be so large relative to market size that monopoly is inevitable in some industries, while oligopoly is the rule in many others. Truly competitive markets, where not one seller or buyer has any influence over market prices, typically exist in agriculture, fishing, handicraft industries, construction, transportation, retail trade, personal services, and sometimes in banking. In much of mining, manufacturing, utilities, airlines, communications, and wholesale trade, monopoly or oligopoly are common." Gillis et al. 1996: 100.

[135] Singh/Dhumale 1999: 12.

[136] Singh/Dhumale 1999: 14.

[137] Singh/Dhumale 1999: 13.

suggest that developing countries should refuse to negotiate on competition rules.[138] One must not accept their developmental economics conviction that in developing countries the economy functions in a completely different manner[139] to accept some of their conclusions. Concerning the optimal combination of competition and co-operation, it is sufficient to refer to the tolerant antitrust treatment of firm-alliances in industrialized countries, to learn that this concept is not devoid any rationale.[140] All in all, support or protection for some industries and flexible competition policies can be justified from the point of view of welfare creation and developmental policies. Thus, rightfully, the era of industrial policy is not over[141] and this insight is relevant for the debate on competition policy. All the more this is relevant, because it is a well established fact in competition policy analysis, that in small markets competition policies are conducted in a different way. In sum, a differentiated answer is needed not only concerning the effects of industrial policies, but also on the logic competition policy must follow under different circumstances.

3.2 Why competition rules are restricting leeways for industrial policy

In principle, all kinds of international rules and principles interfere with options national competition authorities have. For example, exclusionary practices of dominant firms could be ignored, to the detriment of a foreign investor. These options[142] must not be discussed at length here, since there is no evidence that antitrust authorities treat foreign firms unfairly and there are other possibilities to put pressure on developing countries. Moreover, it is in the developing countries' self-interest not to use these options in a widespread manner, because they must remain attractive for foreign investors.

Be that as it may, the most important thing is to assess the impact of global competition rules on national merger policies. In this respect a tricky point must be regarded. Only if tariff and other barriers have been liberalized competition policy authorities of a developing country can rightfully define the geographic market in which

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[138] Singh/Dhumale 1999: 16.
[139] Singh/Dhumale 1999: 11. Here they refer to the paper of Laffont 1998.
[140] See part 4.4 in this text.
[141] See Lall 1995b; Lall 1999c.
[142] It is not the aim of the paper to give an introduction into competition policies. Nevertheless, some reasons for antitrust prosecution can be mentioned. Here the U.S. practice is used as example. The coordinated manipulation of prices or output, that is cartelization, is prohibited. If a firm is regarded as dominant, its business behavior underlies special antitrust scrutiny. In this case for example exclusionary practices, like tying (to sell one product on condition that another product or service is bought too) arrangements, refusals to deal, depriving other firms from essential facilities or predatory and other pricing strategies can be investigated. It belongs to a different category that minimum resale price maintenance is regarded as per se illegal. Territorial divisions are illegal, while vertical territorial restraints are analysed under the rule of reason. Other vertical restraints may encompass tie-ins, reciprocity- and exclusive dealing contracts which are accepted but may be prosecuted if very high market shares and the propensity to collude are involved. Group boycotts are illegal under certain conditions. Moreover, the abuse of patent licensing can be investigated. Lastly, mergers are reviewed. See Hovenkamp 1999: 144-146, 171-190 (on cartels), 218-231 (concerted refusals to deal), 242-249 (patent licensing), 288-352, (exclusionary practices of a dominant firms that is tying, unilateral refusals to deal, essential facilities, predatory pricing etc.), 427 (tying, full product line forcing), 441-442 (minimum retail price maintenance), 444 (naked territorial divisons vs. vertical territorial restraints), 476-482 (other, non-price vertical restraints), 482-483 (group boycotts), 469-389 (vertical mergers), 490-563 (horizontal and conglomerate mergers). For the EU approach see Bellamy/Child 2001. See furthermore the work of the OECD comparing the approaches in different countries to some of these aspects: OECD 1989; 1994; 1996f; 1999d.

domestic merging firms compete as worldwide.[143] The definition of geographic markets is an important step in merger analysis. In case geographic markets are worldwide and there is import competition it is generally much more easier to approve mergers between big domestic firms. If the markets are considered as regional or local concentration ratios quickly rise and it gets more difficult to allow mergers because anticompetitive effects are likely. In markets which are protected by tariffs and other measures (this is often the case in developing countries which want to build up own industries) worldwide merger 'guidelines' could implicitly or explicitly prescribe that the geographic market must be regarded as the domestic market. Consequently, the relevant merger market shares will quickly grow higher and it will be much more difficult to justify the merger. Thus, in principle, if markets are open, one can argue that worldwide merger 'guidelines' will not stand in the way of big mergers in developing countries. Nevertheless, in practice, without liberalization, it will be more difficult to do this, at least if worldwide merger guidelines would be in place. Consequently, these guidelines will contrain policy options.

A few examples for industrial targeting can be mentioned here. Most of these episodes show, that foreign firms benefit and progressive liberalization has been taking place. Clearly, some of these episodes would have been more difficult with international competition rules in place. The state-led Maruti Udyog joint venture together with Suzuki of Japan (Suzuki has relatively close relations with GM) successfully revived the automobile industry in India.[144] Similar policies are conducted in China with Volkwagen and its statal and quasi-state joint venture partners.[145] Malaysia still clings to its Proton automobile industry, 1983 founded as public sectors firm, now a joint venture of the state with Mitsubishi, which is not unsuccessful.[146] There is developing country government influence in the telecommunications industry, for example in China or Indonesia, but no longer in Brazil. Usually petroleum firms are under government control in developing countries. Most of these cases show that state-intervention is welfare enhancing and not damaging to international firms. In India the state-private Maruti Udyog

[143] From the perspective of the EU merger control and its influence on German merger policy this is pointed out in Bach 1992: 572, 582. See for the following points, again from the perspective of EU merger control Bellamy/Child 2001: 386-404. Factors which are regarded in market definition are first of all the product market: Here product characteristics are analysed (demand-side substitution) which may make them substitutable from the point of view of the customers. If substitutability is confirmed this leads to a bigger relevant market, where some more products are included. There is supply-side substitutability, if other firms may be able to switch production quickly in order to supply the markets which are affected by the merger is taking place. If this is the case, these firms must be counted as part of the same market. Secondly, the geographic market is defined. The geographic market "comprises the area ... in which conditions of competition are sufficiently homogenous and which can be distinguished from neighbouring geographic areas because, in particular, conditions of competition are appreciably different in those areas". Bellamy/Child 2001: 395. There are quite a few barriers, which may isolate markets and may affect the definition of geographic markets: local presence to sell, conditions of access to distribution channels, costs associated with setting up a distribution network, presence or absence of regulatory barriers (public procurement, price regulations, tax regimes, tariffs, technical standards, monopolies, freedom of establishment, requirements for authorizations, packaging regulations etc.). Thus, tariffs are one important factor in geographic market definition. Bellamy/Child 2001: 395-396.

[144] Maruti Udyog Ltd was set up 1981 as a government company with the objective of modernizing the passenger car industry. The Suzuki Motor Corporation of Japan was the joint-venture collaborator with 26 per cent equity and an option to increase equity to 40 per cent. In the end of 1994 a production capacity of 200.000 cars has been reached. Susuki started to export the Alto Minicar from India to Europe. UNIDO 1995: 187-188. At May 7, 2002 the Indian Government announced, that it remaining equity stake of 49 per cent should be reducted to 25 per cent in the near future, to raise money. Seen on TV in CNN, May 7, 2002. General Motors (GM) bought a 5 per cent stake in Szuzuki in in 1981, opened a joint venture with Suzuki (CAMI) in Canada in 1986 and increased it equity stake in Suzuki to 20 per cent in 2000. See company history in: http://www.gm.com.

[145] Hermanns 2001: 286-287; Lardy 2002: 106-109.

[146] The state/private nature of Proton involving Mitsubishi is mentioned in Jwa 1999: 9. Originally Proton was a public sector firm. It may come as no surprise that it took more than 10 years to build up this industry. Exports started in 1991. See Lall 1995: 762, 767.

joint venture involves a party from an industrialized country. It temporarily had a near monopoly in the Indian market. Some time later a lot of other joint ventures with the participation of foreign firms started to operate in India.[147] The same pattern can be observed in China. In the early years VW's state-quasi/state-private joint ventures were protected until they reached scale economies (one half of Chinas car market, 310.000 cars) and Daihatsu was allowed to build a compact car. Now a considerable number of foreign firms have been allowed to invest: Toyota, Ford, GM, Honda. GM reported profits in Shanghai on its first year of operations and is able to achieve high production numbers too.[148] Thus, it is doubtful, if there really is an unfair advantage for the first-mover in the market which had a temporary monopoly. Although there was state involvement, all of these efforts to build up an own automobile industry were made with close links to firms from industrialized countries. Moreover, new firms in developing countries pose no real threat for the market position of the established big firms, like Toyota, Ford, GM, VW or Daimler/Chrysler. What firms like Malaysia's Proton can achieve is to be further integrated in the cooperation networks of the global players at some point of time, which makes it more likely that Malaysia remains a location for automobile production.[149] In all of these cases, one or two firms temporarily obtained dominant positions in the market and it would have been difficult to allow mergers involving these entities in this period of time, if global competition rules would have been in place.

This problem can be illustrated by Indonesia's automobile industry. Indonesia progressively liberalized its economy, but in some sectors a concentrated industry structure remains.[150] Because Indonesia's market is so small, there is the paradox that the automobile industry is too fragmented to reach economies of scale, although the industry is relatively concentrated. [151] Toyota, the most efficient producer, which belongs to the biggest firm (Astra group) in Indonesia, produced only 8600 cars in 1996.[152] Consequently, it would be best to merge the remaining entities, for example under the umbrella of Astra/Toyota, to provide export and performance incentives and to, gradually, liberalize the market. Indeed, the subsidised entry of PT Timor Putra Nasional was exactly the wrong decision because it led to even more fragmented markets.[153] If global merger guidelines would be in place the option to create one single national champion would no longer be possible. Because in Indonesia there are still import barriers (which are used for infant industry protection) consequently the geographic markets have to be regarded as domestic and therefore the merger would create a monopoly. Worldwide guidelines on mergers will prohibit such a policy and will not reflect that this monopoly is only temporary and may contribute to Indonesia's industrial development. Be that as it may, it can be justified from the point of view of efficiency to let one player in India or Indonesia achieve scale economies and higher local content ratios before other firms are allowed to go in. In most of the countries, perhaps a little bit later than the liberal authors would suggest, progressive tariff and investment liberalization takes place. And if a firm devotes ressources to it, there will be a chance to compete for every major firm. This process takes place without global competition rules. Indeed, if government policies are a

[147] UNIDO India 1995: 187.
[148] Lardy 2002: 106-109, 111-113.
[149] Daimler/Chrysler is interested in cooperating with Proton. See: http://www.searchmalaysia.com/malasiacar.shtml.
[150] Between 1990 and 1996 the four leading firms produced more than 75 per cent of output in over 150 of 300 industry branches. Most of these industries are capital-intensive and had large economies of scale. Because these firms often belong to conglomerates this understates actual concentration. Dhanani 2000: 122.
[151] Aswicahyono et al. 2000: 226-227.
[152] Aswicahyono et al. 2000: 227.
[153] Aswicahyono et al. 2000: 224.

failure often foreign firms are anyhow allowed to take over the sector. This was, for instance, the outcome of the indigenous Brazilian effort to build up a computer und telecommunication equipment industry.[154] There are other reasons for tolerating industrial policy leeways and deviations from neutral competition law:

Sometimes industrial policy may simply be motivated by the fact that goods are in extreme undersupply and a domestic production base is urgently needed. This, for instance, occurred in the Indian fertilizer industry. Its development started off with a lot of public involvement, but also with private participation. For example in 1985 one big public and one big cooperative firm was established in order to mitigate import needs, partially funded by the World Bank.[155] Obviously no foreign direct investment filled this gap. In later investment plans again one public sector firm and a cooperative firm has been established. The four other firms were financed by the Indian private sector, one of them working with technical assistance from Italy, one is a joint venture where a investor from Bahrain participates.[156] Thus, again it can be shown that firms from other countries benefit from industrialization policies. Furthermore, there could be the situation that new investment is urgently needed to expand production and private firms can only finance this, if they merge. Should this be prevented, if a concentrated structure or a monopoly emerges? Certainly, the Indian state should have the option to allow crisis cartels in order to avoid price wars if capacity untilization is low during a drought in India.

Another thing is, that new firms, possibly created and to some extent supported by the state, can enhance competition. For instance the creation of Airbus by the European Communities arguably helped to prevent an U.S.-monopoly in the field of large passenger airplanes. Thus, the intervention of the EU can be legitimized on competition policy grounds.[157] It is furthermore assumed to be welfare enhancing if one maintains a marginal firm in concentrated homogenous goods industries.[158] In a liberal and globalizing world economy, where more and more sectors are dominated by a few global players, it could be desirable from a competition policy perspective, if governments still retain the flexibility to react on concentrated market structure in a concrete manner, namely by entry f.e. be financing a small firm (in the terminology of antitrust: a maverick firm, which refuses to collude). This argument is particularly interesting in the context of the contestable markets theory which deals with the disciplining force of the threat of entry. Applied in this context, a developing country government may maintain threat of entry, in order to price-discipline oligopolistic foreign investors industries.[159] Interestingly, empirical investigations on liberalization effects show that sectors dominated by multinationals sometimes show no response on liberalization. Although liberalization in many cases leads to lower prices and more competition[160], research shows that in sectors which are dominated by multinationals, however these effects do not occur. For Belgium and England there is evidence for rising profit margins in important branches of industry even after

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[154] Mytelka 1999: 126-128.
[155] UNIDO India 1990: 97.
[156] UNIDO India 1990: 96-97.
[157] Meiklejohn 1999: 27.
[158] Meiklejohn 1999a: 17.
[159] It is not exactly the same idea, this reference points to. In this book it is mentioned, that goverments can sponsor R&D of potential entrants in order to increase diversity of sources of innovation. Chang 1994. 78.
[160] Jacquemin et al. 1980: 141; Levinsohn 1993: 20; Großmann et al. 1998: 72-76.

liberalization.[161] Such options for state action could be restrained by worldwide competition rules if rules are negotiated applying to the conduct of state-enterprises.

So, in short, multinational enterprises, who demand worldwide competition rules, should counterbalance exceptional damages against the overwhelming advantages of their engagement in developing countries and the overall welfare benefits resulting from more flexible policies there. On the level of rule-making, the obvious contribution of industrial policies and flexible competition policies to developing countries' welfare must be weighed against the benefits of an even more secure business environment. My impression is that the former has considerably more weight than the latter. Of course, there are exceptions but one must ask whether those exceptions justify worldwide rules with highly problematic effects. In other words: Because both the industrialized countries and the developing countries generally benefit from the policies which are conducted nowadays, it does not make sense to demand policies which constrain policy options of developing countries even further.

This does not mean that developing countries should not establish their own competitions authorties, or that they should not use liberal elements in their policies. There are sound reasons to assume that competition policy can play a welfare enhancing role on national level. In addition, there are reasons to expect that some elements of liberal economic policies will have positive effects. It might not be a bad idea for developing countries to follow a liberal approach to competition policy, if exemptions are allowed and flexibility is provided. Lastly, in other aspects of competition policy, like abuse of dominance, flexibility might not be that urgently needed like in merger control. Nonetheless, the abovementioned problems with merger control show that it is clearly problematic to negotiate on broad-based international competition rules.

3.3 Industrial policies in industrialized countries

This differentiated approach and this commitment for allowing flexibility becomes even more plausibel, if one considers the advantages big firm have and the role the governments of industrialized countries play in shaping these advantages. Market power is not identical to bigness, but advantages big firms have can enhance their market power. Market power can have negative and positive effects. Although market power is sometimes seen as problematic from an antitrust point of view, it is accepted that advantages related to market power are used by firms to obtain returns on their investments: for example, investments in more efficient production because this provides welfare to society. On the other hand, market power can have negative consequences. Market power is, among others, the ability to maintain prices above competitive levels for a significant period of time.[162] Surely it is the most disputed issue in industrial economics, but one can maintain the position that there is some evidence that market power exists in the real world and leads to higher profits in industries with high market shares, most

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[161] In 70 per cent of the industries investigated the profit margins decrease. In 16 per cent of the industries (13 industries) the profit margins rise. This group consists of petroleum, fabrication of steel tubes, forges, metal working, mining equipment, electrical equipment, automobiles, automobile parts, iron construction, medical equipment, paper and packaging, optics, plastics. De Ghellinck 1988: 13-15. Großmann et al. 1998: 73.

[162] Horizontal Merger Guidelines 1992: 2. In other words: In markets with higher concentration it becomes more likely, that prices can be set independently from demand.

likely in concentrated industries.[163] Market power has different facets. There are pricing strategies, like limit pricing, parallel pricing or price leadership which dominant firms can use to raise prices without engaging in outright collusion.[164] Moreover, in concentrated industries the incentives to collude rise and it becomes more simple to maintain a cartel. Furthermore, especially market power related to bigness encompasses other aspects some of which may deter entry and help to maintain higher prices: product differenciation, price setting and plant location strategies to slow the rate of entry or enty deterrence by maintaining high capacity.[165] These unfair options, provided by market power, are often disregarded when the discussion focuses on other aspects of advantages the firms have. Often only those aspects which are desirable from a societal point of view are stressed: for example increasing productivity related to competition: high quality products, and proximitiy to customers. Nevertheless, these fields overlap.[166] In industrial economics both firm specific advantages and market power are explained by a diverse set factors which enable firms to produce with lower costs which strengthen their position and may hinder potential competitors to compete in their market, encompassing factors mentioned above.[167] Similar issues are evaluated in merger control and may result in a decision to challenge a merger, if different factors together lead to the opinion that the newly created market power threatens the competitive process.[168] Merger control should prevent a substantial lessening of competition (or in EU terminology that a dominant position is created or strengthened).[169] This implies that different kinds of 'coordinated interaction' and other anticompetitive practices should be counteracted by merger control (because challenging them by anticartel rules is much more difficult). Until now it has been regarded as an important task of merger analysis to prevent anticompetitive concentrations in markets because it makes these practices easier.[170]

3.4 Why big is successful

In a lot of sectors the advantages of big international firms from industrialized countries are overwhelming and persistent. Therefore, it does make sense to ask whether these firms should be treated in a non-discriminatory manner in the antitrust laws of developing countries. This question becomes even more legitimate, after learning

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[163] Stressing the evidence against a concentration/profitability link but nevertheless quoting severel studies supporting this thesis: Schmalensee 1989: 973-976. Cautiously supporting this thesis: Scherer/Ross 1990: 438-447; It is acknowledged, that it is difficult to differentiate between market power and efficiency of big firms. Not supported by the available evidence is that high profits reflect only efficiency, thus it may well be that the two aspects are inextricable intermingled. In general market share leads to market power. Martin 1988: 191.

[164] Scherer/Ross 1990: 353-374, 377-380.

[165] Scherer/Ross 1990: 374-410. On the concerns of merger analysis see Hovenkamp 1999: 494-495.

[166] From the perspective of merger analysis: "The most difficult problem in determining an appropriate merger policy is that the field of mergers cannot be divided into mergers that encourage collusion or increase market power on the one hand, and mergers that create efficincy on the other." Hovenkamp 1999: 495.

[167] Martin 1988: 193-217, Scherer/Ross 1990: 97-152; 571-660.

[168] In merger control, market power usually is related to market structure and furthermore in the assessment of competitive effects of mergers a list of other factors is used in order to evalute market power and effects on competition: Actual competition, likelyhood of collusion, legal or other barriers of entry, likelyhood of entry, that is potential competition, and other factors relating to entry, namely sunk cost and economies of scale, supply and demand trends, changes in market conditions (new technologies, changes in market shares) alternatives available/level of substitutability of products, economic and financial power. This is an enumeration of issues, which evaluated in U.S. and in EU merger control. See: Bundeskartellamt 2001: 5-10; Coate 2000: 333-334.

[169] See overview on prohibition criteria of the USA and the EU. In: Bundeskartellamt 2001a.

[170] Hovenkamp 1999: 493-496.

that these advantages are to a certain degree created by state subsidies on R&D expenditures. Hopefully, this argument can be explained below. Here is of interest, that some of these advantages are typical for firms with more than one production site ('multi-plant firms'[171]), better known as multinational enterprises or international firms. Certain factors, empirically discussed in Scherer (1975), explain the emergence and the effects of the emergence of international firms or multinational enterprises. This analysis is roughly similar to Dunning's (1997) well-known description of advantages of multinational enterprises in his OLI-paradigm.[172] Furthermore, it is compatible with the concerns and the terminology of antitrust law. All in all, the below-mentioned factors taken together go a long way to explain why large firms exist and might be a source of market power.

It is no longer surprising what Bain (1954) found out in his pathbreaking study, namely that firms are often bigger than economies of scale would predict.[173] In Scherer's study (1975) specific firms are between three and ten times bigger.[174] The list of potential advantages large firms with many production sites can have is well known and is only partially reproduced here.[175] The more 'hard' advantages (which might be more easy to assess) are economies of scale, that is lower production costs which result from producing at a technically optimal scale[176] and futhermore, the financal ressources of the firm, which can scare off potential competitors (for example by the option to cross-subsidise between branches of the firm).[177] Other, more 'soft' factors (more difficult to measure, implying only slight advantages if seen in isolation) are mentioned, which nevertheless lead to market power and advantages, especially if they cumulate.[178] Concerning marketing there are scale and other advantages for large firms.[179] Diversification of products is a strategy which is typical for large firms, and which can have foreclosure effects, for instance better access to retail chains and other distribution channels. Multiple production sites yield specialization gains, for example long production runs despite a diversified product range. [180] Vertical integration, that is mergers between upstream and downstream entities can be a source of cost advantages, examples are steel, petroleum refining, paints, household appliances.[181] Moreover, technology matters: R&D leads to advantages for larger multi-plant firms compared to smaller firms: there are advantages of scale, when one R&D centre is financed by a lot of production sites (the costs can be spread over a larger sales volume); different

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[171] Scherer 1975.
[172] See Dunning 1997: 82-84.
[173] Some industries are two or three times bigger. Overall ten of twenty industries are bigger that scale would predict. Moreover, it is shown that economies of scale and market concentration are related and furthermore capital requirement are discussed as entry barriers. Bain 1954: 33-34.
[174] For storage batteries and weaving the market share of big three firms was ten times larger as it was needed for achieving minimum optimal scale. In paint, glasbottles, shoes and steel the markets share of the leading firms were between four and six times higher as necessary. Whereas in the cement industry the firms were three to five times bigger. Scherer et al. 1975: 393. Generally firms were bigger than necessary to exploit multi-plant economies: Scherer et al. 1975: 339, 393.
[175] See Scherer et al. 1975: 237-354; Scherer/Ross 1990: 120-141. Only the well-known aspects are mentioned here, see for many more issues and a much more detailed discussion Scherer et al. 1975: 237-354. See furthermore Bain 1965.
[176] This might lead to market power. A firm which exploits economies of scale can for example deter other firms from engaging in a price battle, because smaller firms are from the outset doomed to loose because they have higher costs and cannot maintain lower prices for a long period of time. See Scherer et al. 1975: 146.
[177] This concept seems to be a uniquely German approach in antitrust analysis. Immenga/Mestmäcker 1992: 782.
[178] Here a mix of factors, some of which increase the market power, some of which enhance the welfare of society, some which do both, is presented.
[179] Scherer et al. 1975: 245-253, 340.
[180] Scherer et al. 1975: 257, 317.
[181] Scherer et al. 1975: 271.

projects can be financed to reduce risk of failures and highly specialized equipment can be purchased.[182] Closely related to this point is the fact that patents and licensing are sources of strength, because this imposes higher imitation costs on other firms.[183] In addition, scale economies and a large firms distribution network are helpful in achieving first-mover advantages and learning-by-doing in the field of technology. Thereby supra-normal profits can be obtained.[184] Further advantages for 'multiplant firms' are broad based market access in different regional markets, better coordination of output volumes, proximity to customers and a priviledged access to capital markets (this latter point is of special importance!).[185] Large firms have advantages concerning the maintenance of a sales force in export markets.[186] Last but not least, there are aspects of firm policy leading to advantages, which are purely strategic and sometimes clearly anticompetitive and nonetheless shape market structures. Domino-like mergers can only partially be explained by the above mentioned factors. Nonetheless, they let firms grow larger, which leads to more concentrated market structures.[187] It has already been mentioned that in concentrated market structures large firms have the ambivalent advantage that it gets easier to engage in profit-maximizing pricing strategies and in collusion. This applies in a similar manner to cross-border strategies: by mergers with a cross-border dimension international firms may want to pre-empt or neutralize competitors' strategies or they want to use market power in foreign markets to deter entry and raise prices.[188] In this context it deserves to be mentioned that world-wide cross-border acquisitions, that is mergers or partial forms of ownership, for example joint-ventures, are an important element of foreign direct investment. Between 1986 and 1990 acquisitions accounted for 65 per cent, in 1991 for 35 per cent and in 1992 and 1993 for 55 per cent of foreign investment.[189] Why is this important? For example, joint ventures can be used to influence a former competitor to change its business strategies. Thus, competition is not necessarily intensified through cross-border strategies. Although not all of this investment can be explained by the desire to monopolize foreign markets, some of it surely can. Among other factors, this should be taken into account if one tries to understand why on global scale a lot of industry sectors are dominated by industrialized countries' firms.

Admittedly, in industrial economics research concerning advantages, a complex picture evolves, on one hand because "there are so many ways to survive"[190] for smaller firms and on the other hand, because multi-plant economies are sometimes only slight or moderate.[191] Nevertheless "*some* multi-plant economies in nearly every industry" are found and slight advantages may cumulate to moderate or substantial advantages. In Scherer (1975) it is concluded that it is desirable to have more firms exploiting multi-plant advantages, because even small cost

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[182] Scherer et al. 1975: 3, 326-327, 331, 334-335; Scherer/Ross 1990: 122, 625.
[183] Scherer/Ross 1990: 627.
[184] Mentioned here without explicitly referring to larger firms. Scherer/Ross 1990: 627.
[185] Scherer et al. 1975: 286-287. Similar arguments in: Immenga/Mestmäcker 1992: 781-782.
[186] Scherer et al. 1975: 256.
[187] Captured for example by the phrase 'oligopolistic interdependencies'. Scherer et al. 1975: 24. Partial evidence, for 18 mergers which led to enhanced profits, is given by Iwasaki 1988: 508.
[188] Dunning 1997: 50.
[189] Dunning 1997: 45.
[190] Scherer et al. 1975: 340.
[191] Scherer et al. 1975: 334-335. Transport costs and other factors play a role, which diminish multi-plant economies in many cases. Scherer/Ross 1990. 123-124.

advantages create welfare in society.[192] Interestingly, for this reason a cautious antitrust treatment (= permissive merger control) of those industries is demanded in this study, although their size leads to concentrated markets, most likely in regional markets.[193] Even more relevant in the present context is, that in the 1970s international comparisons show that in Europe plants are smaller and it is concluded that considerable inefficiencies and cost disadvantages may result from this.[194]

3.5 International firms and their position on world markets

From the perspective of antitrust policy this creates the dilemma that some of the advantages big firms have, f.e. scale economies and technological progress, are desirable from a societal point of view because welfare is created by it. Certain advantages (some more than others) are dangerous from an antitrust perspective, because they can lead to market power and to concentrated markets.[195] As already mentioned above: Especially for smaller countries this dilemma is particularly problematic, because sometimes concentrated or monopolistic markets are unavoidable. Options which remain, are to discipline big firms by opening their markets[196] or to use special incentives to prevent negative developments. If this does not work, there is the threat that welfare gains are neutralized by higher prices or slower innovation.[197] These dangers related to market power are particularly noteworthy, because large firms from industrialized countries seem to already dominate certain sectors on worldwide scale.

The numbers presented in Table 8 and Table 9 are no real measure of world concentration, since not all firms in a specific sector are involved. Nonetheless, the results give a good impression about the success and persistant presence of big firms, most of them from industrialized countries, in world and national markets. In the following sectors the three biggest firms in 1990 obtain a share of circa 30 per cent of a group of 20 other big firms: Aerospace, electronics, pharmaceuticals, chemicals, automobiles, industrial and farm equipment, metalproducts and manufacturing, paper and wood products and food. In the drinks and tobacco sector the shares are even higher, but here the industry group only consists of 9 firms.[198] It has already been mentioned that this is not the whole story and surely other forms of business persist and might even become successful. Nevertheless, these figures certainly reflect that advantages and market power of big firms are real and that it is very difficult to counteract for firms from developing countries.

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[192] Emphasis in the original text. Scherer et al. 1975: 339. Only paints, glass bottles, cement and ordinary steel firms are not among the candidates which should at a minimum expand their firms to 2 till 8 production sites in order to enable them to exploit multi-plant advantages. Scherer et al. 1975: 336.

[193] Scherer et al. 1975: 388-396. This generally positive evaluation of large firms' efficiencies is repeated in more recent times. For example, it is estimated that rising the four-firm concentration ratio from 40 per cent to 80 per cent would cause an average unit-cost reduction of 1,5 to 2,5 per cent. Scherer/Ross 1990: 661-675.

[194] Scherer et al. 1975: 85-128.

[195] Immenga/Mestmäcker 1992: 785.

[196] Scherer et al. 1975: 390, 392; Scherer 1992: 61.

[197] Kantzenbach 1994: 295-296.

[198] De Jong 1993: 11.

This strong position is mirrored in foreign direct investment. In foreign direct investment the industrialized countries and their big firms have the largest share. In 1993-1994 there were 38.000 multinational enterprises, from which 3.800 stem from developing countries, having 250.000 affiliates (101,000 in developing countries). Stocks of outward foreign investment are owned 94.5 per cent by developed market economies, on average 10.7 per cent of their GDP, the rest, 5.5 per cent stems from all the other developing countries, including the NICs. Concerning the stocks of inward foreign investment 75.2 per cent is invested in the developed economies, and 24.1 per cent in developing countries. Asia has the most inward foreign investment, 13.4 per cent of total (total is $ 2,079.5 billion for 1993), Africa 2.4 per cent, Latin America 8.1 per cent.[199] He gives no source, but Dunning reports that the largest 1 per cent of multinational enterprises account for one-half of foreign direct investment stock in 1993.[200] Surely a lot of firms, which carry out foreign investment, have advantages in technology. And they exploit (sometimes to pre-empt other competitors from developing countries) this advantage in their cross-border strategies: it is estimated that of total foreign direct investment stock 75-80 per cent was carried out in sectors with "above-average human skills, capital or technology intensity."[201] These international firms account for a large share of global trade. For 1982 it is estimated that 1/3rd of U.S. merchandise trade is intrafirm trade and 50 per cent affiliate trade.[202] Trade in parts and components, related with off-shore assembly for example in the textiles sector, but also with exchanges of full-blown foreign affiliates in the high-tech and automobile field, accounts for at least for 16 per cent of world trade (440 billion out of 2.7 trillion) and perhaps even 30 per cent.[203]

3.6 The influence of R&D on firm advantages and the role of the state in industrialized countries

In R&D big firms have considerable advantages vis-á-vis their smaller and less sophisticated counterparts, for instance, those in developing countries. This aspect of firm advantages is analysed in the following part. The thesis is, that a double divide emerges: industrialized countries/developing countries; big firms/smaller firms. This argument is supported by looking at international trade patterns, research about R&D and its relation to firm size, and R&D expenditures in industrialized and developing countries.

Investment and capabilities in R&D are a major source of competitive advantage for the industrialized countries and their firms, whereby their trade patterns are shaped. It is well known, that 96 per cent of the world's R&D expenditures (1990), both private and state expenditures, are conducted in industrialized countries.[204] It is estimated that 26 per cent of OECD trade is in high-tech products.[205] Admittedly, world trade is not completely dominated by high tech products.[206] For world trade a 27.7 per cent share for high tech products in 1996 can be computed. The high and medium technology field together accounts for 64.9 per cent. In this study high tech is defined as: fine chemicals and pharmaceuticals, complex electrical and electronic machinery, aircraft and

[199] Dunning 1997: 42-43, 45.
[200] Dunning 1997: 45.
[201] Dunning 1997: 45.
[202] Hipple 1990: 1268.
[203] Yeats 1998: 7, 38.
[204] Coe et al. 1995: 1.
[205] OECD 1996c: 103.
[206] See for the next few sentences and the data therein Lall 1999: 1774-1776.

precision instruments. Medium technology includes: mainly automotive products, most industrial chemicals, industrial machinery, and simple electrical and electronic products. Although developing countries increased their share in the high tech field, from 8.1 per cent 1980 to 29.8 per cent in 1996, this is mainly due to labor-intense offshore assembly operations of multinational firms and, in addition, surely caused by other forms of direct investment. In the medium technology the industrialized countries dominate. They account for roughly 90 per cent of the trade (developing country share grew from 3 per cent in 1980 to 11.5 per cent in 1996). Overall there "is a long-term tendency for *trade to shift from simple to complex technologies*".[207] See Table 10. The growth rates for resource based products for 1980-1996 are low (5.7 per cent). For high tech products an overall growth of 11.6 per cent took place (1985-1990: 17.4 per cent, 1990-1995: 13.0 per cent). Thus, the industrialized countries obtain large shares of world trade in the high and medium technology sectors. These shares are persistant and there are no reasons to expect a sudden change of luck for developing countries. In the medium technology field products are most often produced by larger firms from industrialized countries and only some NICs have the industrial base enabling them to engage in production in this field. These products tend to be "technologically demanding, scale, skill and linkage-intensive products (e.g. automobiles, machinery or chemicals)".[208] Furthermore, "[r]eaching world levels of competence in them necessitates long learning periods."[209] This pattern is supported by research on U.S. trade. It can be shown that U.S.-trade is research and development intensive. In manufacturing the most R&D intense sectors account for the most exports. Other important variables, labor skills, and large-scale industrial operations play a similarly important role.[210] In an investigation of 22 industrialized countries it was found that differences in national innovative effort (measured by the share of 1963 till 1977 patent grants by national companies in the U.S.) were clearly the leading determinant of manufactured goods trade balances. The more technically innovative a national industry is, the more exports from that industry tended to exceed imports. Only natural resource intensive and some industries where patents were no longer relevant in the assessment of competitiveness were outliers. From 40 industries, 7 were not closely related to innovation or trade could not be explained by innovation.[211] To summarize, world trade is to a large extent shaped by the technologically advanced products and certainly to a substantial degree by large firms which are discussed in this section.

[207] Lall 1999: 1774.
[208] Lall 1999: 1776.
[209] Lall 1999: 1776.
[210] Scherer 1992: 11-13. Reporting results from Sveikauskas 1983.
[211] Dosi et al. 1990: 170-173; see reference in Scherer 1992: 11. Industries which positively relate to innovation are: Industrial inorganic chemicals; industrial organic chemicals; plastic materials, synthetics; soups, cleaners, toilet products; paints and allied products; miscellaneous chemical products; drugs; rubber and miscellaneous plastic products; primary ferrous metal products; primary and secondary non-ferrous metals; fabricated metal products; engine and turbines; farm and garden machinery equipment; construction, mining materail handling machinery equipment; metalworking machinery and equipment; office, computing and accounting machinery; special industry machinery; general industry machinery; refrigeration and service machinery; miscellaneous machinery excluding electrical; electric transmission and distributing equipment; electrical industry apparatus; household appliances; electrical lighting, wiring equipment; miscellaneous electrical equipment supplies, radio, TV receiving equipment; communication equipment, electronic components; motor vehicles and equipment; railroad equipment; miscellaneos transportation equipment; ordnance, guided missiles, space vehicles and parts; aircraft and parts: In the outlier category belong: Food products; textile mill products; agricultural chemicals; petroleum, natural gas; stone, clay and concrete products; ship, boat building, repairing; motorcycles, bicycles and parts. See Dosi et al. 1990: 171-173.

The reason for this is that large firms are leading innovators. Although, in some cases big firms do slowly react to more intense competition, they are capable of "fast second"-responses, that is aggressively fighting back after some time has passed.[212] This is especially, but not only, true concerning high-tech and capital intense sectors.[213] Empirically it can be shown that large companies have advantages in carrying out complex innovations, like aircraft, high-definition TV equipment, nuclear plants.[214] Big firms in relatively concentrated markets (intermediate oligopoly) carry out a lot of R&D. In markets with four-firm concentration ratios between 50 and 55 the highest R&D expenditures can be found, obviously because rivalry is most intense there.[215] Large firms conduct most R&D: In 1982 firms above 10.000 employees performed 81.3 per cent of all company-financed R&D in the USA.[216] In consumer goods industries with high advertising expenditures, in industries with capital intense production processes, and in industries where four-firm concentrations ratios are comparably high (and the firms were innovative) companies with 500 and more employess "out-innovated" smaller companies.[217] Even if the innovators are not employed by big firms, these firms in many cases "shouldered the burden of developing independent innovators' ideas for commercial utilization."[218] A bias towards big can be supported by a further study, which shows that leading firms in a sector increase their R&D expenditures if competitors increase their R&D budget. Here an interesting pattern emerges: if the leading firms intensifies R&D the reactions of competitors are roughly similar, they also increase expenditures. Smaller firms ('fringe firms') react negatively on higher expenditures on the side of the leading firm. The authors conclude that smaller firms probably increase their expenditures only if the leading firm falls behind and is inactive. If not, smaller firms stay within their own boundaries. This effect is most significant in oligopolistic markets.[219] This counterproductive incentive structure could be one reason, why firms in developing countries do not dare to invest in R&D. There are general advantages R&D provides, from which both small and large firms benefit: R&D is highly profitable, it is estimated that there is a 15 per cent return to investment in R&D.[220] This can be supported, for example, by a study of Canadian industries, where rates of return between 25 and 47 per cent are found. Although some industries, for example, electrical products, have higher expenditures, their rate of return (38 per cent) remains acceptable.[221]

Overall R&D expenditures, private and public, in the OECD increased from 1989 $ 317 billion to 1995 $ 409 billion (North America: 191 billion, EU 123 billion).[222] The state finances a large part of this: 1995 34.5 per cent on average in the OECD. Over 60 per cent is financed by the state in Iceland, Poland, Portugal, Turkey. In Austria and Italy close to 50 per cent, in France 42.3 per cent, in Germany 37.4 per cent. Slightly lower numbers are

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[212] Scherer 1992: 176; Scherer/Ross 1990: 654.
[213] Scherer/Ross 1990: 652-654.
[214] Scherer/Ross 1990: 652.
[215] Scherer/Ross 1990: 646.
[216] Scherer/Ross 1990: 654.
[217] Scherer/Ross 1990: 656.
[218] Scherer/Ross 1990: 653.
[219] Franz 1995: 122. Here the outcome of a study of Caves and Maron (1991) is reproduced. Title: Rivalry among firms in research and development outlays, mimeo, Harvard University.
[220] OECD 1996c: 10.
[221] Bernstein 1989: 324-325.
[222] This sum includes any kind of research which is taken out, it presumably includes universities, research institutions as well as private firms: OECD 1998a: 189.

reported from the USA 36.1 per cent and Japan 22.8 per cent.[223] The support for R&D grows for, example, in the EU: the EU budget's subsection research and technology development reports EUR 3.920 mill. for the year 2001.[224] The EU countries have own R&D policies: here expenditures of EUR 3.988 mill. are reported for the same year.[225] This is no new phenomenon: Since the Second World War state support of R&D has remained high. Of total R&D expenditure in 1956 of $ 6.605 million, the U.S. state financed 50 per cent, of total expenditure in 1970 federal sources funded 44 per cent.[226]

It is difficult to measure, but a substantial amount of R&D support is used by industry to improve the competitiveness of their products. In OECD countries between 1989 and 1991 the sum of $ 40.0 billion was spent on 282 support programmes and in the category of R&D contracts to manufacturing industry a sum of $ 88.5 billion was spent, and there is more.[227] See Table 11. It is not known how many of these contracts directly improved the competitiveness of a firm. But it is usual that for instance intellectual property rights, which result from supported research are often attributed to the contracting firm or at least shared with it. Defence contracts can led to 'dual use' outcomes, that is, innovations which can be used in the civil realm.[228] Furthermore, research in Germany shows that at least 50 per cent of the projects which are supported by the state would be carried out anyhow by the industry.[229] This is a clear proof for the commercial value of state-supported R&D projects. And it is a clear proof that R&D subsidies cannot be justified by political economy reasons, for instance the theory of market failure. Similar to the field of patents, most firms do not need subsidies (patents as incentives) to carry out innovative activities. They are forced to do it by pressures of rivalry with other firms anyhow.[230] Moreover, big firms are clearly preferred concerning R&D subsidies and supported more than small firms.[231] For example, the German international firm Siemens.[232] This led to the fear that government sponsored R&D support intensified concentration in an economy.[233] In sum, industrialized states support policies play a significant role in shaping the advantages of their firms and large firms receive more favourable treatment.[234]

Admittedly, these results are not based on a perfectly comparable set of firms, with the same size, operating in similar market structures. And big firms are not the only firms which innovate.[235] Nevertheless, a certain divide between large and smaller enterprises and between larger firms from industrialized countries and weaker firms in

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[223] OECD 1998a: 192. In other sources it is estimated, that 50 per cent of R&D is financed by the state in EU and BRD. Franz 1995: 134.
[224] EC 2001: 7.
[225] State Aid for horizontal objectives, particular sectors, coal and regional objectives. R&D constitutes 11 per cent of the total aid less aid to agriculture, fisheries and transport, which amount to EUR 33.262 mill. See: State Aid Scoreboard 2002: 19.
[226] Chandler 1990: 619.
[227] See: TabR&DOECD.
[228] These examples are given in OECD 1998a: 197.
[229] Meyer 1995: 130.
[230] Not only recurring on the well-know research of Edwin Mansfield but on other sources: Scherer 1994: 59.
[231] The category of big firms is defined by using turnover of more than DM 250 mill. It is noted that the small and medium firms which receive R&D too are more often than not subsidiaries of bigger firms. Meyer 1995: 145-149. See for similar arguments concerning the bias towards big firms Franz 1995: 133-134; Donges 1980: 196.
[232] Siemens recieved between 1974 till 1987 14 per cent of the funds in the field telecommunication technology support. How much exactly this was is not mentioned. Meyer 1995: 113.
[233] Meyer 1995: 145-150.
[234] The unfair role subsidies for high tech industries play is for example stressed by Safarian 1997: 60.
[235] Scherer/Ross 1990: 625-660.

developing countries should have become clear. The ressources developing countries and their firms devote to R&D are much smaller. The development of a fuel-efficient truck engine costs between $ 400 and 600 mill. in Europe. This cannot be financed by an Indian truck company, which has a turnover of $ 800 mill and a R&D spending of $ 8,4 mill..[236] The central government funding of R&D for technology development in India amounts to $ 105 mill.[237] The evidence presented here is regarded as persuasive.[238]

3.7 The ambivalent effects of R&D and other alliances

The advantages of the big international firms are even more enhanced by a relatively new phenomenon: alliances.[239] From 1980 until 1989 there were 4192 strategic partnerships and technology alliances which contained elements of technology transfer.[240] Typically alliances occur in the following sectors: biotechnology, new materials, computers and information technology, industrial automation, microelectronics, software, telecommunication, automobile industry, aviation, chemical, heavy electrical machines.[241] Surely, these longer-term engagements lead to more exchange of experiences and technology than 'arms-length'-deals.[242] Often alliances have saved firms from decline.[243] One might realistically expect a continous scale between a cooperative, perhaps even collusive way of working together, as well as a reciprocal exchange of information and finally open competition between the partners of an alliance.[244] Nevertheless, the benefits of alliances concerning technology transfer are clear. But the advantages (this technology transfer is boosted further by the current merger wave, which gives firms access to other firms' technology) are confined to USA, Europa and Japan. Between firms from these countries 95.7 per cent of the strategic technology alliances take place: joint R&D projects, joint ventures and minority investments. Between the Triad countries and the NICs 2.3 per cent of the alliances are negotiated, mostly joint ventures, for example, in the automobile industry and in the field of information technology. Other developing countries achieve a 1.5 per cent share with a relatively high percentage in the chemical and automobile sector, concerning alliances with Triad countries.[245] This bias can be explained by the capabilities of firms: some authors argue that firms conduct R&D to exchange their information with other competing firms, which work in the same field. With firms conducting no R&D, i.e. from developing countries, such

[236] The example here is TELCO. See: Lall 1987: 180, 175-182.
[237] See Trade Policy Review India: WT/TPR/S/33, 5 March 1998, p. 101.
[238] An overall discussion of the efficiency of industrial support is not the aim of the paper. Nor is the aim to show, how R&D aid and other forms of aid, which are not discussed here, cumulate in specific firms. The purpose is to show that big firms have advantages leading to success in world markets, that most of these firms come from industrialized countries, and the advantages partially rely on R&D backed by state support.
[239] See Dunning 1997; Yoshino/Rangan 1995.
[240] In this database only contracts are collected which contain arrangements for transferring technology or joint research. Examples: Joint-research pacts, second-sourcing and licensing agreements, joint ventures with technology transfer or R&D implications. Excluded are marketing or production joint ventures. Freemang/Hagedoorn 1994: 780.
[241] This overview about the number of such alliances is given in Freeman/Hagedoorn 1994: 774. Vgl. für Beispiele: Yoshino/Rangan 1995: 96, 170, 179, 200. For the computer industry's firm networking see Ernst 1997.
[242] Yoshino/Rangan 1995: 68.
[243] For example in the case of Ford, Caterpillar and Motorola. In general, allianced have had positive effects, for example, in the case of General Electric and Toyota/General Motors. See Yoshino/Rangan 1995.
[244] Yoshino/Rangan 1995: 17-22.
[245] Here under the NICs category the following countries are counted: Korea, Taiwan, Singapur, Hongkong, Basilien, Mexico, Argentinien. The Latin American countries have much lower shares. Freeman/Hagedoorn 1994: 771.

exchanges do not take place because these firms cannot reciprocate.[246] These findings are supported by a study that shows a clear correlation between technology exchange networks, already existing high R&D expenditure and firm success.[247]

From the perspective of antitrust, alliances have positive and negative consequences on competition and welfare creation.[248] Implicitly this is admitted by authors who demand most liberal treatment for alliances and cooperations because they see this permissive antitrust treatment as desirable integration of U.S. trade, industrial and technology promotion policies into antitrust.[249] In short: they want to strengthen industries regardless of the effects on competition which could be collusion and higher prices or slower innovation. Other authors directly put forward the thesis, that at least some international cooperation agreements are "integral parts of most state policies to develop or maintain a presence in the high-technology areas" and thus pure forms of industrial policy.[250] What do other researchers have to say? Althought the research outcomes are not precise and there is much variation, it is stressed that most of these alliances are concluded horizontally, that is between rivals.[251] It is estimated that 48 per cent are between firms within the same technological field.[252] This might facilitate coordinated behavior among the firms, or competition might lessen, for example by dividing markets.[253] All the more this is relevant, since R&D alliances are often supplemented by arrangements on production and marketing.[254] Moreover, the danger is that specific innovation markets are monopolized or tight oligopolies are created. If the innovations are important, a monopoly position concerning downstream markets could result.[255] Therefore, alliances can lead to fewer potential competitors, lesser and more slower innovation (if independent firms would carry out R&D anyhow, cooperation means that there are less potential competitors concerning innovation) and rising entry barriers, especially for smaller firms.[256] However, R&D cooperations may reduce entry barriers because risks are shared, success of R&D might get more probable and innovation might stay at a high level, if financially potent competitors exist and profits are more equally distributed, because 'first mover advantages' and 'winner takes it all'-situations become less likely.[257] But, see above, this weakening of advantages and market power of large firms and the improved technology transfer only applies to firms in industrialized countries and a few NICs.[258] It is likely, that simultaneously the disadvantages smaller firms and enterprises, which conduct less R&D, face, are enhanced by these alliances.

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[246] Franz 1995: 87. Similar conclusion in Freeman/Hagedoorn 1994: 778-779.

[247] Freeman/Haagedorn 1992: 18.

[248] There is much literatur which points out the ambivalent effects of these cooperations. Perhaps the only authors who hold against this are Jorde/Teece 1997.

[249] Jorde/Teece 1997: 298-299. Whether integration is the right word can of course be disputed because if one focuses on achieving trade policy objectives this can mean that in the internal market competition lessens with detrimental welfare effects (and not efficiency). This obvious trade-off is not mentioned by these authors.

[250] Safarian 1997: 61.

[251] Franz 1995: 115. Confirmed in Yoshino/Rangan 1995: 9.

[252] Franz 1995: 133.

[253] Franz 1995: 159. Similar arguments in Fuchs 1989: 75-82.

[254] Franz 1995: 29.

[255] Franz 1995: 121. Similar arguments in Fuchs 1989: 75-89.

[256] Franz 1995: 135-136. Similar arguments in Fuchs 1989: 75-89.

[257] Franz 1995: 51-52, 74.

[258] Dunning 1997: 53-56.

It is especially unfair in relation to firms in developing countries, if an alliance has anticompetitive effects in industrialized countries because it is likely that market power is strengthened in relation to firms from developing countries too. In this case, the R&D alliance should have been prohibited by antitrust authorities. Because there are welfare advantages resulting from alliances, at least from the domestic perspective of the Triad countries, in studies it is concluded, that in case these advantages exist, alliances should not be endangered by competition law. On the other hand it is stressed that a generally positive evaluation of R&D cooperation cannot be justified. The competition authorities should therefore make notification mandatory and analyse each case in detail.[259] See below on evidence that they do not do this. In such cases competition policies' passivity works as industrial policy. It raises entry barriers vis-á-vis firms from developing countries, it disencourages R&D efforts there, it indirectly hinders market access etc. It is even more unfair, if the alliance has benefitted from government sponsored R&D subsidies. This, and other evidence shows that competition policy in industrialized countries may, at least partially, amount to industrial policy.

4. Competition law: promoting bigness in industrialized countries and NICs

Competition policy in developed countries is influenced by private actors i.e. big business and by industrial policy reasons.[260] A well known example is the change of U.S.-policies concerning mergers, vertical and cooperation agreements in the 1980s and the following merger wave. For industrial policy reasons the EU followed suit. These policies encouraged big, multi-plant firms to use their advantages in their home markets and on global scale. Sometimes these advantages are, at least to a significant degree, obtained by a permissive or non-enforcement of antitrust laws. Furthermore it is interesting that industrialized countries provide a lot of different exemptions in their competition law: Crisis cartels, specialization cartels, rationalization cartels and outright exemptions for political decisions. This can be shown in the case of the EU, Germany and Japan. Although U.S. antitrust law does not provide the competition policy authorities to grant exemptions, in the USA the Congress can allow exemptions from competition law.[261] Some European countries are interesting because of an absence of competition culture, for example, widespread cartelization in Belgium. Canada and Belgium are interesting, because they consider themselves as small economies. Because they are convinced that only large firms are competitive on worldwide scale they promote large domestic firms in their merger law. Korea is mentioned to demonstrate how artificial incentives can substitute for liberal policy elements like liberalization or a neutral competition policy.

[259] Franz 1995: 135-137, 157-159. It is not really sure, whether these welfare advantages are really that important because it is not unlikely that a system which relies much more on autonomous R&D efforts of individual firms will work satisfactory too.
[260] See for this general point concering Germany for example Jens 1981.
[261] Although U.S. antitrust laws do not permit competition policy authorities to grant exemptions from competition law, Congress has created exemptions, for example for shipping cartels, railroad mergers and for export cartels (Webb-Pomerane statute). See: ABA Internationalization 2002: 10.

4.1 USA

To be sure, competition in U.S.-markets and antitrust policies still exist. This implies that in the USA concentrations of economic power are not in any case allowed and there are criteria and thresholds, which stop mergers. What matters here is the question of degree, the factual deviations from certain thresholds, the de facto abolition of action against monopolies, the political pressure on antitrust authorities, the non-enforcement of certain rules, which may amount to de facto industrial policy, and the transparency of U.S. decision-making. Moverover, seen in historical perspective, mergers enforcement was not really determined in the USA. If all these aspects are taken into account, one can uphold the thesis that big firms are treated favourably in the U.S. and that sometimes even industrial policy is carried out by antitrust policy, for example, through permissive merger control and the instrument of benign neglect.

It was not before the Cellar-Kefauer Act of 1950 that all forms of mergers could be challenged[262] and until Hart-Scott-Rodino of 1976 a full-scale surveillance of mergers was not possible.[263] For reasons which are well known, policy-makers recognized during Second World War that a considerable percentage of the U.S.-economy is not structured in a perfectly competitive way, for example, 29 per cent of manufacturing in 1954 could be classified as monopolistic.[264] This was regarded as a threat to free competition, leading to a socialist political system and a loss of democratic decision-making, independent from business.[265] Until the 1970s merger enforcement is usually described as strict. Then horizontal and vertical mergers were regarded with suspicion, while conglomerate accumulations were treated more tolerantly[266], but nowadays there are considerable doubts about the overall efficiency of this policy.[267] The considerably more permissive attitude towards merger in the 1980s can be traced back to changes that took place in the 1970s, some of which prepared the merger wave during the Reagan period.[268] Already in the 1972-1982 period, 104 horizontal mergers took place (out ot 300 transactions in total), of which 17 did not pass the prima facie standards prescribed in the 1968 merger Guidelines. There were 5 mergers in markets, where the 4-firm concentration ration was above 50 per cent and 5 were in the range of 40 and 49 per cent.[269]

In the 1982 Merger Guidelines it was officially recognized that beside market structure concerns, there are other factors which change attitudes of antitrust authorities towards mergers. For example, efficiencies which can outweigh anticompetitive effects which might strengthen domestic actors.[270] When no significant entry barriers[271]

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[262] Rodino 1994: 1059-1060.
[263] Davidow 1994: 1086.
[264] The criteria cannot be reproduced here. The first study which gives numbers seems to be Nutter/Einhorn1969: 90. It heavily relies on the detailed investigation made by Clair Wilcox in 1940. See Wilcox 1940.
[265] Moreover the protection of small business was mentioned in the debates. For the motives see Rodino 1994: 1059-1062.
[266] The DOJ and the FTC lost not a single case on Supreme court level. McGuckin 196-197.
[267] There is consensus that the pre-Hart-Scott-Rodino divestiture orders were no particularly successful and did not maintain competitive markets, for the divestitures were often delayed. It is estimated that 80 per cent of the orders can be judged as unsuccessful. See Divestiture Study 1999: 1.
[268] McGuckin 1994: 294, Footnote 3, 296-299.
[269] McGuckin 1994: 306.
[270] Efficiencies generally refer to factors that could both strengthen a firm and which are expected to yield general welfare benefits, especially if they are passed on to consumers. Here scale economies, multi-plant economies, better R&D are

are percieved a merger is allowed and furthermore, it can be decided, that market shares thresholds overstate the anticompetitive effects of an aquisition.[272] This made merger evaluation more flexible, compared to a test which solely focuses on markets shares and structure. Furthermore, it seems to be important that 1984 the leading firm proviso was considerably weakened. In 1982 this part provided that firms with a market share of 35 per cent could only merge with firms having markets share of not more than 1 per cent and that no other factors should be taken into account in this case. Obviously, the reason for this was that firms should be prevented from achieving a single dominant position (which could make for example price leadership practices more easy). In the 1984 guidelines other factors changing the evaluation of the merger were accepted even in those markets. The factors, which are valid until today, are, among others: changing market conditions, f.e. technological change, ease of entry, efficiencies.[273] Although still market share barriers are mentioned in the merger guidelines, it is made clear that other factors could lead to an acceptance of mergers on even higher levels of concentration.[274]

It is therefore not convincing to argue, that the different approaches of USA and EU competition policies not necessarily have an impact on evaluation of mergers by the competition authorities. Surely, certain important criteria remain on the agenda of the "substantial lessening of competition"-test of § 7 Clayton Act[275], and it is possible in the USA to challenge mergers which in the EU are regarded as anticompetitive. In this sense, the differences in terminology not necessarily lead to a different merger policy. [276] Nonetheless, the abovementioned changes in theory and the effects on practice are substantial.[277]

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mentioned. If a merger poses a clear threat to competition "extraordinary" efficiencies must be shown which cannot be actualized without the merger, in order to let the merger be allowed. Hovenkamp 494-504. It depends on the case and on the way foreign competitors are taken into account but in general the efficiency defense could be used to strengthen domestic industry at the expense of foreign competitors. See below on empirical evidence on the relevance of the efficiency defense in merger analysis.

[271] In other words: Markets are contestable if there is threat of entry. Then it is assumed that market power remains weak and prices are expected to stay low despite high concentration. How threat of entry can be measured is disputed. See Baumol 1982; Demsetz 1982; Shepherd 1984; Peritz 1996: 280-284.

[272] Rodino 1994: 1069; see also Peritz 1996: 280-282; McGuckin 1994: 306. For the actually applied set of criteria see Coate 2000: 333-334. And: Horizontal Merger Guidelines 1992.

[273] Horizontal Merger Guidelines 1984: 51-52, 55, 64.

[274] Horizontal Merger Guidelines 1984: 49-50.

[275] See for the criteria used Hovenkamp 1999: 490-550.

[276] In the USA, compared to EU law, mergers can be challenged, even if it is not possible to show that the concentration creates a strengthening of a dominant position. On the other hand, it enables the authorities to disregard market share criteria and efficiency gains and low entry barriers can become important factors in the assessment. Thus, in theory, the set of criteria for merger evaluation enables the U.S.-authorities to prosecute the same anticompetitive merger strategies, like for example the EU, with its dominant position approach. Bundeskartellamt 2001: 2.

[277] In the words of Herbert Hovenkamp: "Nonetheless, the attacks on the S-C-P paradigm have had three long lasting effects. *First*, mergers in the 1960s were condemned on smaller market shares and in much less concentrated markets than would be required today. *Second*, , while the old S-C-P paradigm assumed that high concentration *entailed* poor performance, the new approach tends to view concentration as merely a *prerequisite* for poor performance. This in itself is a major qualification –some would say rejection- of the S-C-P paradigm, for it means that evaluation of non-structural evidence is essential to predicting the behavior of the post-merger market. The 1992 Horizontal Merger Guidelines demonstrate this influence by the way in which they take various 'non-market-share' factors into accound in predicting the consequences of a merger. *Third*, we have become much more sensitive to the impact of economies of scale in production and distribution. That is, the industrial economist of the 1990s is much less likely than the 1960s economist was to assume that breaking up big firms in an industry will make consumers better off. Gains in competitiveness may be more than offset by losses in productive efficiency." (emphasis in the original text) Hovenkamp 1999: 493-494.

Most commentators agree that in the Reagan period "it may have become too easy for companies to merge".[278] It is consensus that this was one reason for the major merger wave in the 1980s, whose structural effects are irreversible.[279] Despite other factors working against this outcome, the merger wave caused a moderate increase of concentration.[280] Many interrelated factors led to this outcome: Firstly, private litigation against mergers was made more difficult.[281] Secondly, the way of interpreting and the attitude towards mergers changed quite remarkebly during the Reagan period. Mergers were generally regarded as positive and vertical intergration as not problematic at all (despite its potential foreclosure effects). Conglomerate mergers were seen as competition enhancing, despite the fact, that if nearby markets are involved, tying-strategies and portfolio-effects are possible. Generally horizontal mergers became focus of competition policy. [282] This meant that vertical and conglomerate concentrations of economic power were treated more permissively. Here the 1984 Guidelines apply.[283] Moreover, some of the criteria for evaluating mergers, for instance entry barriers, are vague i.e. difficult to define, and the underlying models (perfectly contestable markets) are abstracted from reality. Therefore, actual entry barriers could easily be missed.[284] Admittedly, considerable discussion has been taking place on these issues and until now, there is much back and forth in U.S.-court decision making, for instance, concerning the efficiency-defense for mergers.[285] This shows two things: namely first of all that flexibility is not limitless. On the other hand the back and forth illustrates that it has become easier for judges and antitrust enforcement authorities to yield to political pressure or to follow a specific permissive enforcement ideal. Apparently, the efficiency defense is not applied as legitimizing mergers when markets are highly concentrated, but it influences decision-making in the category of

[278] Kovaleff 1994: 249; Peritz 1996: 273; Buxbaum 1989: 569. At least from the efficiency perspective this view is not accepted and it is claimed that most of the mergers led to increased competition and those who did not, were not allowed. McGuckin 1994: 309.

[279] Peritz 1996: 278-282.

[280] Porter Liebeskind et al. 1996: 53. This is not self-evident, for the Reagan period was a time of prosperity and furthermore a refocusing of corporate activity on core competencies of firms began which meant that firms started to restructure and divested parts of their operations. Furthermore, foreign companies started to aquire American companies on a larger scale. Therefore it is not at all natural, that concentration increased in this period of time. It has risen despite these developments. For these points see Kovaleff 1994: 240, 246, 248.

[281] See Buxbaum 1989: 577. For an early case Peritz 1996: 254-255.

[282] Peritz 1996: 280.

[283] Buxbaum 1989: 573. Hovenkamp 1999: 387-390.

[284] See Baumol 1982; and the response from Shepherd 1984.

[285] For example in the Heinz/Beech-Nut case. Pro efficiency-defense: United States District Court for the District of Columbia, Civil Action No. 00-1688 (JR), October 2000. Sceptical, maintaining high thresholds: United States Court of Appeals for the District of Columbia, No. 00-5362, 27.04.2001. Reference in Bundeskartellamt 2001: 22. Futhermore see the comparison of the treatment of efficiencies in Canada, EU and US in Warner 1994. Although in the USA the efficiency defense has been established, in merger cases at least the courts do apply it reluctantly. Wagner 1994: 1101-1102. In the 1992 Horizontal Merger Guidelines it is mentioned, but as a subpart of competition analysis. Wagner 1994: 1102. Efficiency defense: To show that something has changed, one can quote from an decision, which clearly points out that price and cost savings are not in itself reasons which are regarded in merger analysis: Brown Shoe Co. v. United States, 370 U.S. 294, 344 (1962) "Congress appreciated that occasional higher costs and prices might result from the maintenance of fragmented industries and markets. It resolved these competing considerations in favor of decentralization." Wagner 1994: 1101. F.T.C. v. Procter & Gamble Co., 386 U.s. 568, 580 (1967). "[P]ossible economies cannot be used as a defense to illegality. Congress was aware that some mergers which lessen competition may also result in economies but it struck the balance in favor of protecting competition." Wagner 1994: 1101. Now: F.T.C. v. University Health, Inc., 938 F.2d 1206, 1222 (11th Cir. 1991). "It is clear that whether an acquisition would yield significant efficiencies in the relevant market is an important consideration in predicting whether the acquisition would sustantially lessen competition. Thus, evidence that a proposed acquisition would create significant efficiencies benefitting consumers is useful in evaluating the ultimate issues – the acquisition's overall effect on competition." Wagner 1994: 1101. But: it seems that this approach is restricted to significant efficiencies which are not achievable by less restrictive means. Wagner 1994: 1101.

marginal concentration.[286] This is why the efficiency defense makes it easier to merge and strengthens domestic industry.

In the literature political influence on merger decisions and more permissive attitude of the enforcement agencies, which goes beyond the thresholds in the guidelines ('shadow guidelines'[287]), is highlighted. In the USA, at least as the 1982 guidelines show a merger is challenged, if the market concentration lies at 1800 HHI and a challenge should happen, if the HHI rises 100 points.[288] In addition, in vertical mergers the relevant market share, above 20 per cent is relevant for a decision to intervene.[289] During the Reagan administration, in informal DOJ practice, these guidelines were not followed. In order to lower HHI-numbers, the definition of relevant markets was changed. Furthermore most of the challenged merger did not fall into the category of 1800 HHI as suggested in the guidelines but the challenge became likely at 2500 HHI and it took place if it rose 500 points.[290] In some cases even mergers with HHIs of 5000 were tolerated due to political intervention.[291] In the guidelines it is calculated that a HHI of 1800 roughly corresponds to a four-firm concentration ratio of 70 per cent (implying that the firms have 17.5 per cent share each). A HHI of 2500 and higher implies four firms which have shares of 25 per cent each, or constellations, where two firms have a market share of 25 per cent (HHI of 625 each, in sum 1250) , one with a share of 35 per cent (HHI of 1225). In mergers of the latter category market shares of one firm could rises to 42 per cent (HHI of 3014) and perhaps even higher. Thus, the possibility is not completely ruled out, that dominant firms emerge and a tight oligopoly is established which makes for example price leadership strategies more easy. These strategies can be used to strengthen firms at the expense of the consumer (and firms in foreign countries). This runs counter an important aim of merger analysis which is to make it difficult for firms to carry out such pricing strategies.[292]

There were some further tricks and outright deviations from the 1982 Merger Guidelines which led to a tolerant treatment of mergers. In order to calculate market concentration, the relevant market must be defined. Here a 'five per cent price increase lasting one year'-test is used. After having determined the merging firms combined output at current market prices, it is asked how many customers these firms will loose or how many new firms will respond to a five per cent price increase. This test creates a bias in favour of large firms because they might already charge higher prices and customers might already use close substitutes. If the price increases further, customers might turn to more distant substitutes. These products are then regarded as being within the boundaries of the relevant market, thereby inflating it. A larger relevant market, of course, leads to lower market share and underestimates a firms market power.[293] Other authors point out, that "it now qualifies as an 'open-

[286] Marginal category: HHI between 1800-2399 with a change of over 200 points or HHI at least 1800 with a change of 200-499 points). See Coate 2000: 336, 338. See for similar information, confined to the Reagan/Bush period Coate 1996.
[287] Calkins 1998: 214.
[288] Buxbaum 1989: 573.
[289] Buxbaum 1989: 573.
[290] Buxbaum 1989: 573-574.
[291] Buxbaum 1989: 574.
[292] Hovenkamp 1999: 494.
[293] Peritz 1996: 280-281.

secret-in-Washington that the DOJ now usually defines relevant markets as asking whether a ten (not five) percent price rise would be profitable".[294]

Of the 11264 merger notifications, between 1983 to 1988, only in five cases mergers were forbidden.[295] On the condition that divestitures take place, 21 bigger mergers were allowed.[296] For an overview see Table 12. In another article is stated that in cases which involve high HHI of 3000 and more (!), before July 1987, only 6 out of 11 cases led to complaints. Later, during the Bush and Clinton administration, such cases were treated with more suspicion.[297] Here one has to add that in the USA detailed information concerning remedies is not publicly available. Due to the 'fix-it-first'-approach in merger policy the FTC has internal adjucation function (coordinated informally with the DOJ) and can negotiate a settlement with the merging firms after the first filing, to avoid further prosecution. Typically, a partial divestiture is negotiated, for instance to bring regional or product-line concentration levels down. About this process and the criteria used little is known because the agencies claim that they need maximum flexibility.[298] This lack of transparency led to suggestions to enhance reporting requirements but the reaction on the FTC was sceptical.[299]

In the three relevant major court cases involving the guidelines this permissive standard was defended. More specifically, the argument that concentration inevitably leads to collusion is rejected. [300] In 1984 a merger which led to a 50 per cent market share was allowed, because ease of entry was diagnosed. In 1986 the judges approaved a merger despite the fact that it raised the HHI from 1900 to 3300, where a firm was 250 per cent larger than the nearest rival.[301] In studies concerning merger enforcement of the Reagan period it is concluded that "level and change in the HHI statistic offered no explanatory power at all".[302] This comment supports the notion that the Reagan period could be characterized as one of ideosyncratic and lenient merger decision-making.

It is often mentioned that U.S.-Antitrust policies actually engaged in so-called 'trustbusting', e.g. measures to break apart existing monopolies. Famous is the breaking up of Standard-Oil case (1911), due to Sec. 2 of the Sherman Act.[303] The merger of U.S.-Steel (1901, court case 1920) was tolerated, although it had, at least temporarily, a monopoly position and since then Sec. 2 "lay dormant for a generation".[304] After Second World War there were Alcoa and United Shoe, but concerning Sec. 2 the 1980s similarly mark a time of seachange towards

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[294] Buxbaum 1989: 574.
[295] The figures are not neither exact nor comparable because it is unclear to which period Kovaleff (1984) refers to when speaking of the 1980s. The overall notification number is taken from Coate 2000: 335. At least, the overall picture given is not completely wrong. The following mergers were forbidden: The Coca/Cola Co./Dr. Pepper Co. (1986); PepsiCo Inc./Seven-Up Division of Philipp Morris (1986); United States Steel Corporation/National Intergroup Inc. (1984); Mobil Oil Co./Marathon Oil Co. (1981-1982); Gulf Oil Co./Cities Service Co. (1982). See Kovaleff 1994: 240-245.
[296] Overview in Kovaleff 1994: 241-241-248.
[297] Coate 2000: 337.
[298] Buxbaum 1989: 573.
[299] Buxbaum 1989: 573.
[300] U.S. v. Waste Management, Inc.; FTC v. PPG Industries; Hospital Corp. of America v. FTC. In: Buxbaum 1989: 574-575.
[301] Buxbaum 1989: 575.
[302] Coate 2000: 335.
[303] In this case the rule-of-reason was invented. See Martin 1988: 87-88. Parts are reprinted in Breit/Elzinga 1996: 120-127.
[304] Martin 1988: 89.

ar more permissive enforcement because cases against Kellog and IBM were given up.[305] There is only one recent example of a Sec. 2 Sherman act procedure, the divestiture of AT&T and this was undertaken voluntarily by the firm.[306] In the 1970s the Sec. 2 enforcement threshold was at a market share level of circa 60 per cent.[307] Since 1980 it is estimated that "the margin of enforcement has increased to at least eighty per cent, and there are apparently no important cases in preparation".[308] Therefore, it becomes unlikely that possible candidates will face such a procedure: Eastman Kodak, Campbell Soup, Gilette, Boeing, Procter&Gamble, dominant newspapers in many cities and airlines, which often dominate specific flight routes at specific airports.[309] Thus, certain extreme concentrations of economic power will not be challenged in the USA. The argument that it is the task of a liberal competition policy to prevent this is rejected in favor of efficiency claims.[310]

During the Reagan years the effects of the Standard Oil break up (and the birth of Exxon) were partially reversed by the mergers between Texaco/Getty, Chevron/Gulf.[311] Recently, Exxon has merged with Mobil, which put the company on Nr. 3 of the Fortunes 500 list of the biggest American firms. The oil-mergers, for example, can be critized because, after some divestitures, they were regarded as conglomerate mergers no longer subject to the closer scrutiny horizontal mergers fall under. Moreover, the relevant geographic market was defined as worldwide. So a buildup of economic power was tolerated which arguably runs contrary the purpose of competition law.[312] General Electric and RCA merged, despite the fact that many commentators regarded General Electric's divestiture of RCA in 1932 as the main reason for more intense competition in the electronic industry thereafter.[313] The joint venture of Toyota and General Motors was allowed, although it was concluded between the major U.S. automobile oligopolist and its major foreign rival.[314] Various anticompetitive effects were discussed, among them price coordination, information exchange and mutual vulnerabilities.[315] The decision was based on the newly approved efficiency-defence in the merger guidelines.[316] It was argued, that the anticompetitive effects will be counterbalanced by GMs learning from Toyota which should improve the former's competitiveness. Thus, industrial policy considerations prevailed.[317] In the airline industry the share of the five largest airlines rose from

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[305] Schmidt/Binder 1996: 151. For IBM see Kovaleff 1994: 201-204.
[306] Graham 1996: 6. See for a short description of the case Kovaleff 1994. 204-208.
[307] Shepherd 1990: 923.
[308] Shepherd 1990: 924.
[309] Shepherd 1990: 931. The other possible candidates mentioned here derive their position from some kind of government grant or action: AT&T (long distance calls), Federal Express, local and regional electric utilities. This list seems to be outdated by now, due to privatization and deregulation. Shepherd 1990: 931.
[310] It is argued that the breaking up of big firms first and foremost hurts the consumers because economies of scale in production and distribution may be threatened. Hovenkamp 1999: 494.
[311] Peritz 1996: 279.
[312] Peritz 1996: 278-280.
[313] To be sure, the merged entity had to divest itself of its radio and television production, in which the companies competed directly and there were other divisions sold. It was a fix-it-first decision, which means, that not much is known in the public about the criteria employed. Kovaleff 1994: 244.
[314] Peritz 1996: 278.
[315] Kwoka 1989: 64-67.
[316] More specifically the 1984 Guidelines. See Fuchs 1989: 144-145.
[317] Kwoka 1989: 68-69. Admittedly, a few years later the anticompetitive effects appear to be small. Nonetheless, this could not have been foreseen and certainly some other strategy, not involving theses risks, would have been possible for both firms. The decision to approve the joint venture was controversial and there was a close 3-2 vote for approving it, on condition, that information exchange should not happen and output should not pass 200.000 units. See Kwoka 1989: 72-76.

58 per cent in 1985 to 74 per cent in 1987 in a domino-like series of mergers.[318] The airline industry was regarded as an example for low entry barriers by some authors in these times.[319] This view can be criticized.[320] In the Grand Metropolitan Limited's takeover of Pillsbury the divestiture selling of the latters grain-processing operations to Conagra led to a further concentration in the latter field.[321] Later Cargill's acquisition of Continental's grain merchandising operation led to a 40 per cent market share for Cargill. Although divestitures were ordered the largest grain exporter was allowed to buy the second largest grain exporter.[322] This concentration in grain handling, and furthermore in the agricultural input supply industry, that is seeds and agrochemicals, which is a result of mergers in the life-science industry, is regarded as so problematic that some researchers propose that this might be an issue for negotiations in the WTO.[323] In some merger cases there was obvious focus on the U.S.-market and the competitive conditions there: It was allowed, that a weaker party in an oligopoly strengthened itself by swallowing up a still weaker (or failing) firm. For this reason the merger between Chrysler and American Motors was permitted. In the steel sector, the merger between United States Steel Corp. and National Intergroup (the parent of National Steel) had to be abandoned due to public pressure, but a merger of LTV Corp. the third largest steel producer and Republican Steel Corp. the fourth largest producer was allowed.[324] In the steel sector a tight oligopoly exists. The four largest firms in 1988 have a market share of 45,3 per cent, the eight biggest 63,1 per cent.[325] It might not mean much, but nevertheless is mentioned: the two sectors, in which a tight oligopoly developed, or has been tolerated ever since, petroleum and automobiles, are sectors which are very important for the U.S.-economy. In these two sectors Fortune 500 firms earned the highest revenues, more than banks and retailers, which follow suit and both sectors report high profits in 2000: Automobiles (24 companies) $ 473 billion revenues, $ 17 billion profits (rank 7 of all firms) and petroleum refining (20 companies) $ 386 billion revenues, $ 16 billion profits (rank 8).[326] Thus, at least in the petroleum refining industry and probably in the automobily industry (see in more detail the section below) the USA seems to pursue a deliberate policy of creating national champions by the means of a permissive competition policy. A most recent controversial case is the merger General Electric/Honeywell. Here the assessment of the European Commission seem to be quite plausible, which implies that the U.S.-authorities might have been too superficial in their analysis, thereby contributing to an unjustified strengthening of the large firm General Electric.[327]

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[318] In the 15 top airports over 70 per cent of the traffic is carried out by the two largest carriers and 50 per cent of traffic by a single carrier. This implies that the market for individual city-pairs is very concentrated. Rodino 1994: 1071.

[319] This view was put forward by William J. Baumol and others. See Shepherd 1984: 584.

[320] Rodino 1994: 1071-1072; especially city pair markets are not perfectly contestable. Relatively low entry barriers are found for established carriers, if they enter competitors markets. On the other hand there are advantages of carriers which have etablished a dense network. See Hurdle et al. 1989: 120-122. See for even more sceptical evidence Shepherd 1984: 584-585.

[321] Kovaleff 1994: 248.

[322] The consequences on small farmers cannot be discussed here: See: Murphy 1999. Several legislative proposals are discussed in the USA to stop consolidation in agribusiness. See for arguments against these proposals, claiming that U.S. antitrust laws are sufficient in this field ABA Proposed Agribusiness Legislation 2000.

[323] MacLaren/Josling 1999: 4, 23.

[324] Two year later, in 1986, LTV was bankrupt and the two mills, it had to sell off due to fix-it-first obligation, were to weak to withstand competition too. Kovaleff 1994: 227.

[325] Adams/Mueller 1990: 76. This understates concentration in U.S.-steel, for not all of the firms are integrated steel works.

[326] Fortune 500, June 12, 2000: 55. See furthermore Part. 4.1.1 on automobiles.

[327] See: Wirtschaft und Wettbewerb 11/2001: 1125-1148.

So much for the 1970s, the Reagan period and its irreversibilities. What do the most recent tendencies look like? In the Bush und Clinton period the former practice was roughly continued. If the postmerger HHI was less than 1800 and the change in market concentration less than 200 a merger was not often challenged (8 complaints out of 41 cases). So-called marginal concentration ratios of 1800 to 2399 with a change of over 200 points or a HHI of at least 1800 and a change of 200 to 499 points led to challenges circa half the time (17 complaints out of 36 cases). Merger cases (in moderately concentrated markets) were likely to be challenged if the HHI exceeded 2400 and the change was 500 points (50 out of 67 complaints).[328] It is even more interesting to compare the Bush with the Clinton period, especially because more information on mergers in more concentrated markets is provided: after 1992, that is in the Clinton period, only one case is challenged if the HHI is below 1800 or the change of HHI is below 200 points.[329] Partially, the efficiency defense seems to be at work here.[330] In the marginal investigations category (see above) in the Bush period there are 23 complaints in 53 cases, but only 6 complaints in 17 cases after 1992. Generally complaints are much more likely in moderately concentrated markets. Now moderately concentrated markets are defined like this: HHI is at or above 2400 and a change of 500 to 999 points takes place or it the HHI is between 2400 and 2999 and there is a change of 1000 points and more (!).[331] Here there are 23 complaints in 40 cases before and 10 complaints in 20 cases after 1992. Last but not least, in the high HHI category, HHI 3000 and more, change at least 1000 points, complaints are becoming more and more likely: After 1992 there are 39 complaints out of 46 cases.[332] Thus, compared to the Reagan period, at least in the high concentrated market category, mergers are getting more difficult. Nevertheless, 7 cases were allowed. Taken together with Reagan's 5 in highly concentrated markets, this amounts to 12 mergers which never should have been allowed.[333] What might such a merger look like? A merger might be allowed when there is one firm with a 45 per cent market share (HHI 2025) and two with 20 per cent (HHI 400 plus 400) and the biggest firm at aquires a firm which leads to 10 per cent more market share(55 per cent, HHI of 3025). It follows that in such a case the creation of a dominant firm with substantial market power is allowed, contrary to the aims of antitrust policy.

An overview concerning concentration in the USA (outdated, valid for 1982) is given in Scherer/Ross (1990). In the following sectors four firms have more than 60 per cent market share: Passenger cars (five-digit), chewing gum, household refrigerators and freezers, primary copper (five-digit), electric lamps, cigarettes (five-digit), cereal breakfast goods, flat glass, turbines and turbine generators, beer and malt beverages, zippers (five-digit), household television recievers (five-digit), tires and inner tubes, aircraft, primary aluminium.[334] See Table 13.

[328] Coate 2000: 336.
[329] In the Bush period 9 cases in 53 lead to a complaint. Coate 2000: 336.
[330] Coate 2000: 338.
[331] Coate 2000: 337.
[332] It is not clear whether the 75 complaints in 93 cases refers to the Bush period or to the whole sample. Coate 2000: 337.
[333] Coate 2000: 335.
[334] Scherer/Ross 1990: 77.

4.2 De facto industrial policy in the U.S. automobile sector

There are other forms of de facto industrial policy which work through non-enforcement of competition policy. Concentrated market structure gives rise to market power, which means that the firms can decide on prices and output independent from demand conditions. The best known example is the automobile industry, which, dominated by General Motors (1987: GM 48.7 per cent; Ford 25.8 per cent; Chrysler 15.6 per cent; others 9.9 per cent[335]), traditionally used coordinated price rounds to maximize their profits.[336] The monopoly power of the dominant players could be clearly observed when they maintained price increases even in times of low demand in the beginning of the eighties.[337] Although profits fluctuated in the seventies, there were remarkably good years, for example 1978 when General Motors earned $ 3,5 billion after taxes (a 20 per cent return on stockholders equity) and Ford earned 1,6 Mrd. US$ (a 16,4 per cent return).[338] For the U.S.-firms in 1980 the following numbers can be presented: In 1980, profits of $ 4,7 billion, 1981 profits of $ 2,3 billion, 1982 profits of $ 0,6 Mrd billion, and in 1983 $ 5,3 billion and 1984 $ 10,4 billion US$.[339] In general, they made more profits then the U.S. manufacturing average, especially in the 1980s.[340] See Table 14. This de facto cartel was supported by U.S. government's negotiation of VERs with Japan, starting in May 1981.[341] It is noted that massive investments and modernizations were taken out in the U.S.-automobile industries in the following years, financed not through capital markets but by US consumers via "excessively high prices".[342] Until now it is found that coordinated behavior in the American automobile industry prevails on a high level.[343] For example, up to six month before production takes place, plans are announced which reveal future monthly car production figures. This makes coordinate price policies more easy.[344] Concerning this, the antitrust authorities face the problem to differentiate,

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[335] Adams/Brock 1990: 105.

[336] These collusive practice started from early on, with the exception of the year 1955. See Bresnahan 1987; Adams/Brock 1990: 111. Between 1967-1970 there were coordination problems because Chrysler offered fleet discounts and obtained larger markets shares in this market. Then GM and Ford offered discounts too and in the end coerced Chrysler to join the cartel again. See Boyle/Hogarty 1975: 90-91. Interestingly, a law, namely the Automobile Information Disclosure Act, made it even more easy to collude. On face, it was aimed against 'packaging', that is dealers put the price for new cars up in order to offer a good price for a customer's used car. This price policy was not transparent, because there was no maximum reference price. Now the law in effect provided that producers publish a maximum price. This made collusion more easy, because it removed options to cheat. Boyle/Hogarty 1975: 87-88. As effect of the collusion higher investment rates and profits (circa 10 per cent vs. 5 per cent industry average, 1955-1958) were documented. Boyle/Hogarty 1975: 92. To be more precise, automobile firms chose the strategy of dynamic limit pricing, thereby raising prices and obtaining excess profits due to the volume of sale they control, while tolerating market share gains of Japanese producers. Interestingly, this strategy seemed to have helped both the Japanese car industry and the U.S.-industry to grow and to remain profitable, at the expense of the American consumer. It is implied, that this practice continued at least throughout the seventies. In addition, a clever product policy concerning smaller cars growing bigger in the years after was used. See for this and evidence on parallel pricing in the end of the 1970s and beginning of the 1980s. Kwoka 1984; Adams/Brock 1990.

[337] Adams/Brock 1994: 516-517.

[338] Kwoka 1984: 510.

[339] The value for 1984 is extrapolated for the whole year relying on numbers which were available for the period between January and June 1984. Therefore profits surely are well above $ 5 billion. Hufbauer et al. 1986: 256.

[340] Adams/Brock 1990: 116.

[341] OECD 1987: 40-42.

[342] OECD 1987: 40-42.

[343] Compared to the Japanese market and even though partial ownership agreement are widespread there. Alley 1997: 201.

[344] Althought the authors point out that there is no clearcut evidence that collusion takes place, they nevertheless point out that there is no evidence to the contrary and they point out incentive structures which facilitate collusion, which are facilitated by these forecasts. It is, for example, possible to issue warning signals, if the production of some producers goes beyond acceptable levels. Furthermore it is mentionend that car producers exchange much more information on a regular basis,

among others, between rational (which overlaps with strategic) individual firm behavior in an oligopoly, which can amount to maximizing profits and raising prices. If the behavoir is judged rational, the authorities do not interfere. For example, by using a simple Cournot model, which tries to describe rational, strategic independent firm behavior in an oligopoly, it can be shown that firms restrict their output to 83 per cent of the competitive output, with the effect of 10 to 30 per cent prices increases depending on the demand elasticities.[345] To a certain degree profit-maximizing parallel behavior is tolerated by antitrust anyway.[346] In order to challenge extreme examples of coordinated price behavior 'plus factors' are needed by which the existance of a conspirary to fix prices can be indirectly inferred. Here U.S.-authorities can rely on a sophisticated set of criteria by which the existance of express collusion (which amounts to an agreement of price-fixing under Sherman Act § 1) can be proven. The courts follow the approach that the plaintiff has to show certain "'plus factors' (as 'circumstantial evidence') making the inference of an agreement stronger".[347] These 'plus factors' include criteria which fit to the above mentioned behavior of the automobile industries: oligopolistic market structure[348], behavior is rational only if it is followed in concert,[349] stable market shares, and a rigid price structure unresponsive to changes in demand.[350] As a consequence, the U.S. authorities could have challenged certain price practices of the automobile industry, but they largely refrained from doing so, whereby tolerating the profit-maximizing strategy of the big automobile players. There were two "isolated" cases focusing only on certain aspects of collusive pricing. One case against GM and Ford's collusive pricing in the fleet market (cars sold to rental-car companies or businesses) and the notorious 1969 case where the Big Three were found to have conspired to stop efforts to develop pollution-control techniques.[351] Nothing speaks against calling this non-enforcement industrial policy. Until now, firms like GM have been expanding their operations on a world wide scale (India, Thailand, Taiwan, Indonesia, Kenya, Nigeria, South

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information on plant operations, ten-day sales figures, information about product improvements. See: Doyle/Snyder 1997: 23-24.

[345] Hovenkamp 1999: 160.

[346] Hovenkamp 1999: 173. "Most industrialized nations have laws discouraging collusive behavior among competitors. The United States has gone farther than most in this respect, making all but legislatively exempted price-fixing and market-dividing agreements per se illegal without regard to their reasonableness. The U.S. law is more permissive with respect to more subtler forms of conduct that could have the same effect as explicit agreements. Oligopolists who refrain from price competition merely because they recognize the likelyhood of rival retaliation do not violate the law as long as their decisions are taken independently. And by avoiding any suggestion of joint decision-making, they may facilitate uniform and nonagressive pricing through such decises as price leadership, advance notification of price changes, most-favoured-buyer clauses, and open price reporting systems. Within this broadly defined bounds, opportunities for significant departures from competitive pricing remain." See: Scherer/Ross 1990: 352. In principle, this does not change my argument above, because the automobile industry maintained their price leadership during recessions and in such an obvious manner that competition authorities had the option to interfere, it amounts to industrial policy, that they made not determined effort in this case. See in the text above for two cases in which U.S. authorities tried to interfere, but which were only marginally relevant. Compare for example the actions of the German authorities who at least credibly threatened to interfere and who de facto negotiated with the automobile firms.

[347] Hovenkamp 1999: 173, 177.

[348] Other factors are advance posting of parallel prices, history of price fixing, and exchange of price information. Hovenkamp 1999: 173.

[349] Hovenkamp 1999: 173. Therefore is not convincing that Scherer/Ross (1990: 346-347) conclude that price leadership is likely compatible with antitrust laws because under certain circumstances it is clearly not.

[350] Moreover the following factors are mentioned: high concentration on the sellers side and diffusion on the buyers side, economies of scale, standardized product, publicly announced prices and terms. Moreover, there could be an industry-wide use of facilitating devices to make tacit collusion easier. Hovenkamp 1999: 177.

[351] Adams/Brock 1990: 119, 122.

Africa) and they are buying competitors shares in Japan or Europe or South Korea (Suzuki (now 20 per cent), Fiat (20 per cent) and Daewoo, Saab, Isuzu fully belong to GM.[352]

Similar practices are tolerated by the competition authorities in other industrialized countries, for example Germany and the experts do not hesitate to express their unease about it.[353] In Germany the competition authority examined the price policy of German automobile firms but did not pursue a case against it. The German automobile industry continuously raised prices in a coordinated manner between 1969 and 1982 and made high profits[354] despite the fact that there were periods of decreasing demand. Examinations by the competition authority took place in 1974, 1976, 1978 and in two cases the price increases could not be justified by the automobile firms.[355]

In EU markets similar problems persist. It is argued, for example, that exclusive dealership agreements enable importers to control the volume and price of cars introduced in a market which is dominated by a specific producer, for instance Fiat in Italy. This is in the interest of the importer, because the dominant producer is in such a position of strength that he could retaliate with lower prices. If one then takes into account the strength of dominant national producers and the overall intensity of competition (here the VERs imposed on Japan play an important role[356]), it can be explained why the price levels in the more or less segmented markets in Europe were so different in the past decades. In countries with a dominant national producer (Renault in France, Fiat in Italy) the prices have been 14 and 18 points higher than in Germany.[357] Although there are other factors which must be taken into account, studies confirm that both price discrimination and price leadership (which implies parallel

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[352] See information in: http://www.gm.com. The merger of GM with Daewoo is of recent nature, the EU received notification on June 20, 2002.

[353] Immenga/Mestmäcker 1992: 1182.

[354] Admittedly, there was some competition, for example, through concessions of retailers, but the overall trend is undeniable. It is moreover true that firms can make losses, for example, if their model policy does not work out right. On the other hand, the profits of the automobile industry were generally 0.8 per cent higher than in manufacturing average and for example VW was able to make extraordinarily large profits in the 1970s, accumulating to DM 6 billion in 1978. Moverover, these profits numbers might understate the true profits because massive investments were taken out in this period of time to improve competitiveness. Berg 1984: 198-199, 209-211.

[355] In one case the automobile firms successfully argued that they had to match higher costs. In another case, this argument was not accepted by the Bundeskartellamt. It showed that rationalization led to cost reductions which could have justified decreasing car prices. In this case the Bundeskartellamt backed down because new models were introduced and it argued that it could not challenge abusive pricing practices which took place in the past. See for this case: 1976, Deutscher Bundestag, 8. Wahlperiode, Drucksache 8/704, p. 53. In one more case there was considerable suspicion and clear evidence that prices were raised above cost increases, but due to considerations of possible other strategic reasons for the price increase the case was not pursued. The latter argument very much looks like an excuse for not challenging the industry. See: Deutscher Bundestag, 8. Wahlperiode, Drucksache 8/1925, p. 56, similar conclusion in Deutscher Bundestag, 8. Wahlperiode, Drucksache 8/1925, p. 24; and 1974, Deutscher Bundestag, 7. Wahlperiode, Drucksache 7/3791, p. 54. See for the references not the interpretation Berg 1984: 198-199, 209-211.

[356] Which made France, Spain and Italy inaccessible to Japanese cars. OECD 1987: 169.

[357] These differences rely on an index on after tax prices: Belgium 100, France 125, Germany 111, Italy 129, United Kingdom 144. The GB prices are not meantioned above because other factors may play an important role. Higher production costs and the need to produce right hand drive cars may isolate this country from competition enhancing imports. Mertens/Ginsburgh 1985: 159, 165.

pricing) took place in Europa.[358] Last but not least, again the 10 per cent tariff on passenger cars, which causes at least 10 per cent plus transport costs higher internal prices, might be mentioned here.[359]

4.3 Vertical restraints

A few notes on other aspects of competition policy in the USA and the EU, emphasizing elements which probably strengthen big firms are given here. Two fields are of importance: vertical nonprice restraints and cooperation agreements, for example strategic partnerships and technology cooperation:

The effects of nonprice restraints are complex and contradictory[360], but some things seem to be sure: if a firm already has market power and uses vertical nonprice restraints, such as exclusive dealing (to which in some cases territorial restrictions are added, moreover tie-in arrangements[361] fall under this category), it can in some cases enhance its market power, for example, if local retailers have substantial power too.[362] On the other hand, it is argued that nonprice vertical restraints enhance competition, notably interbrand competition, that is competition between different manufactures, for instance, by intensifying competition for access to retail channels.[363] Another competition enhancing effect of vertical restraints could be that it is for smaller firms easier to penetrate markets if they use exclusive contractual relations.[364] Notwithstanding, problematic scenarios remain: for example firms can use this device to deter entry by making arrangements with retailers, which do not allow them to distribute competitors products.[365] Furthermore contracts can have the effect that price competition between retailers of the same brand, that is intrabrand competition, is lessened. Moreover collusion gets more simple.[366] On an international scale, selective and exclusive distributional restraints can, in conjuction with re-import bans, seal off geographic markets.[367] In economic modelling it is consensus that both negative and positive effects are possible.[368] Because of the ambivalent effects of vertical restraints it is demanded to apply a rule of reason approach to this[369], which has been the case since 1977 in the USA.[370] One would expect that rule of reason means thorough investigation of the cases, and there are, inspite of all the difficulties involved, criteria by which

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[358] Kirman/Schueller 1990: 69-71, 88-89; Mertens/Ginsburgh 1985.

[359] Internationales Büro für Zolltarife, Brüssel. Europäische Union, Jahrgang 1998-1999: 431-432.

[360] And it does not cover price restraints. In the USA, minimum resale price maintenance remains a per se violation of Sherman Act § 1. Hovenkamp 1999: 485. See for nonprice restraints Hovenkamp 1999: 476-489.

[361] Hovenkamp 1999: 391-439.

[362] Hovenkamp 1999: 480, 485. In the automobile industry, tie-in arrangemets, for example concerning tied sales of repair parts, were used to increase profits. This statement applies to the 1960s and is used to illustrate what tie-ins are. Boyle/Hogarty 1975: 91.

[363] Mathewson/Winter 1987: 1062; Hovenkamp 1999: 477.

[364] EU Green Paper on Vertical Restraints 1996: 38.

[365] If a big retailer needs to sell a specific product because customers regularly want it, and the manufacturer threats to give up its exclusive dealing contract, he can put pressure on the retailer not to sell products of rivals, thereby rising entry barriers. See the example involving conduct of General Electric in: Comanor/Frech 1985: 544-545.

[366] See for both points EU Communication Green Paper: 16. A detailed overview on positive and negative effects it given there and in EU Green Paper on Vertical Restraints 1996.

[367] Wolf 1998: 273.

[368] This consensus is stressed by Comanor/Frech (1987) who review papers from Mathewson/Winter (1987), Schwartz (1987). The approach of Robert H. Bork, who regards nonprice vertical restraints generally as acceptable, is rejected by these authors.

[369] Comanor/Frech 1987: 1072.

[370] See Continental T.V., Inc. v. GTE Sylvania Inc. See Hovenkamp 1999: 477. For a short overview see Calkins 1998: 201-219.

such an investigation could be pursued.[371] Nevertheless, at least in the USA, a suspicious assessment rarely seems to be made. Nonprice vertical restraints are generally regarded as competition enhancing.[372] Even if market power is found, the courts are prepared to listen to the reasons manufacturers have for imposing these restraints. For example, reasons like dealer efficiency and control of free-riding are accepted as justification for restraints. All in all the "rule of reason has come close to creating complete nonliability for vertical nonprice restraints."[373] Furthermore, vertical restraints are dealt with in the U.S. Vertical Restraints Guidelines 1985.[374] Here, for example, bigger firms in more concentrated markets (above 1200 HHI) are allowed to engage in exclusive dealing or tie-in arrangements, if the coverage of these arrangements is below 60 per cent of the market. Thus bigger firms are allowed to exclusively deal, although they have substantial market shares. If for example 8 smaller firms use theses arrangements, a coverage ratio of 80 per cent is allowed. This similarly can lead to foreclosure effects and market access can be made more difficult by this.[375] The case law for exclusive dealing arrangements regards foreclosure effects, for example, behavior can be challenged, if a seller engages in contracts prohibiting dealer to sell competitors products and the market share exceeds 40 per cent. But case law does not prescribe clear market share thresholds because other factors are taken into account which make a more tolerant evaluation possible.[376] Other authors decribe this more bluntly: "In the United States, exclusive purchasing even by a monopoly or near monopoly firm may be lawful if it serves the purpose of responding to market needs and is not likely to be price raising".[377] All in all, the U.S. approach on nonprice vertical restraints is clearly too permissive, a fact which is acknowledged by the antitrust authorities who have tried to change this in some recent decisions.[378] Moverover, some of these new decisions focus on the vertical price restraints, the so-called minimum resale price maintenance (here the manufacturer or supplier fixes the price at which the product is sold by autonomous dealers). Although resale price maintenance is *per se* illegal ever since in US antitrust law there has been no determined enforcement of this rule in the 1980s.[379] Resale price maintenance makes it easier to monitor cheating in cartels, thus incentives to establish cartels have risen.[380]

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[371] It is certainly difficult for the courts to weigh intrabrand anticompetitive effects with interbrand competition. Nevertheless certain criteria are suggested: if "1) interbrand collusion at either the dealer or manufacturer level; 2) restraints posed at the behest of a powerful dealer; or 3) that the supplier has market power and that the restraints are being used to facilitate intrabrand collusion or inefficient price discrimination." See Hovenkamp 1999: 480. Other authors stress that the rule of reason weighing must be taken seriously because although in some cases interbrand competition is intensified, in other cases there may be system of distributional restraints and exclusive dealership arrangements which can hinder other actors from getting access to distribution channels. Wolf 1998: 272.

[372] Hovenkamp 1999: 477, 485.

[373] There are nevertheless 3 plaintiff victories which shows that even in times of change, nonprice vertical restraints can have obvious negative effects which cannot be neglected by the courts, even if the threshold have been put up. Hovenkamp 1999: 480.

[374] These guidelines reflect the practice of the FTC, and are, in principle, non-binding for the U.S. courts. The FTC shows that it is not interested in challenging arrangements falling under those criteria. Schmidt/Kirschner 1985: 790.

[375] Schmidt/Kirschner 1985: 787-791.

[376] Referring to the Tampa Electric Case 1961: Hovenkamp 1999: 436-437. See furthermore Calkins 1998: 207.

[377] ABA Internationalization 2002: 21.

[378] Calkins 1998: 210. This is confirmed by Freyer 1992: 322.

[379] Under Clinton FTC Chairman Pitovsky changed this policy: "It always struck me that the nullification of enforcement against resale price maintenance, despite support for the *per se* rule in the Supreme court and in Congress, was the most indefensible prosecutorial decision in the last twelve years." Calkins 1998: 210. This is confirmed: "Unlike their predecessors, the Reagan Antitrust Division declined to prosecute either price or non-price vertical restraints", by Freyer 1992: 322.

[380] OECD 1999d: 6.

Although the picture is complicated, the EU seems to be more suspicios when it comes to nonprice vertical restraints, however only to a certain degree. One reason for this is that one aim of EU's competition policy is to maintain a common market and a free movement of goods. Vertical restraints can for example be used to hinder retailers to compete in markets reserved for other exclusive distributors which makes it possible to segment regional or national markets again.[381] Therefore, all kinds of direct and some indirect provisions, which might oblige a distributor not to export or not to import, are prohibited. Nonetheless, it is allowed to demand from a exclusive dealer to refuse from active marketing efforts in territories which are reserved for other exclusive dealers of the same brand. So-called passive sales, that is, the acceptance of unsolicited orders from outside its territory are allowed, but not active marketing on the side of the dealer which would enhance competition much more.[382] Moverover, one goal of EU's nonprice vertical restraints regime is to protect the independence of retailers and dealers.[383] How do USA and EU differ? First of all, there is a clear difference to the U.S. rule of reason treatment because the EU uses block exemptions for these arrangements. [384] In the early block exemptions a 'white'-list of accepted restrictions was provided. Firms could not freely chose among contractual obligations, but were obliged to choose among the restrictions provided in this 'white'-list. Deviations were only possible if firms asked for an individual exemption. As a consequence firms were constrained concering the obligations they could include in their distribution agreements, even if these obligations were not problematic.[385] On the other hand, if the firms complied with this list, even firms which were dominant in the market were exempt from Art. 81.[386] It shows the relevance of vertical restraints that the EU recieved 30.000 notifications when the group exemptions were enacted.[387] The new block exemption, Regulation 2790/1999[388], incorporates a market share limitation of 30 per cent. This market share threshold has been introduced because the EU-Commission believes that market power determines whether vertical agreements have anticompetitive effects or that these effects are not likely to be counterbalanced by benefits. Firms with market shares above this threshold must apply for an individual exemption.[389] Industry was opposed to the introduction of this market share threshold.[390] It seems that both the clear market share threshold and the insistance on an open common market makes treatment of vertical restraints less permissive in the EU than in the USA. On the other hand, the EU gets more lenient because in the new EU block exemption the 'white'-list of allowed restraints is omitted. Still a 'black'-list of prohibited 'hard-core'-restraints and non-exempted restrictions is provided. And clear time frames for certain conditions are prescribed: For example non-compete obligations are not allowed, if they exceed 5 years. Such an non-compete obligation implies for example that a retailer agrees not to sell competitors products (except for

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[381] EU Green Paper on Vertical Restraints 1996: 22-24. Moreover, in general there is much more suspicion concerning vertical restraints in Europa compared to the U.S. For example there is widespread unease about the effects of for nonprice restraints, for example territorial restrictions among German antitrust specialists. See: Bundeskartellamt Arbeitskreis Kartellrecht 1995: 474-475.

[382] Maintaining an internet presence and conducting sales via internet is allowed, but using e-mail for marketing purposes is not. Bellamy/Child 2001: 526, 7-054; 493-571.

[383] See the points below and Fox/Ordover 1997: 424.

[384] Fox/Ordover 1997: 424.

[385] For more details see Bellamy/Child 2001: 536-538.

[386] Bellamy/Child 2001: 502, 7-017.

[387] EU Green Paper on Vertical Restraints 1996: 33.

[388] EU Vertical Restraints Regulation 1999. See furthermore EU Guidelines on Vertical Restraints 2000.

[389] Bellamy/Child 2001: 502, 7-017.

[390] See: International Chamber of Commerce: Follow-up communication to EC Green Paper on vertical restraints, 21 January 1999. In: http://www.iccwbo.org.

cases where the suppliers provides premises which he for example leases to the dealer: petrol stations, pubs).[391] Long term contracts are regarded with suspicion in the USA too, but this is only one factor among other which can lead to a challenge of a vertical restraint.[392] Other forbidden practices in the EU are territorial restrictions and restrictions on sales but always certain exceptions are mentioned.[393] The EU case law concerning nonprice vertical restraints seems to rely on reasonable assessments and is extraordinarily detailed.[394] There is evidence that competition among distributors could be much more intense in the EU (partially due to lack of independent dealers[395]) which might indicate foreclosure effects. All in all, in both U.S. and EU law close and continuous relations of suppliers and dealers are not really made impossible.

It has already been mentioned in the second part of the text that nonprice vertical restraint law clearly has an international dimension for these measures have effects on market access and can make foreclosure strategies easier.[396] It could benefit not only consumers but also producers from developing countries, if access of their producers to retail and distribution networks in industrialized countries was made easier and independent dealers were strengthened. On the other hand, developing countries must consider that vertical restraints might be beneficial for own companies which build up distribution networks in industrialized countries (although only big firms have the ressources to do this).[397] Anyhow, it would be not persuasive to suggest broad-based principles with effects on developing countries because this would ignore the impact these laws (and the weak enforcement of these laws) already had on market access for developing countries. It is, for example, suggested that "exclusionary practices that foreclose market access, when such conduct harms consumers and the competitive process" should be prohibited, while it is understood that national competition laws can remain as they are and that therefore "some nations will be continue to be more 'pro-access' than others".[398] Another approach has been mentioned in the second part of the text. Certainly, there remains more to be done to achieve a fair balance of interests in this field. The permissive approach in industrialized countries (and the intransparent and difficult to evalutate weighing process, where for example pro-competitive efffects are taken into account[399]) justifies permissive policies in developing countries. Generally, the effects of an international harmonization are difficult to predict, because they depend on the nature of the distribution system in the countries. Thus, it could well be adequate, that some countries increase their enforcement more than others. For example developing countries often have a lot of independent dealers and the warehouse chains are not as concentrated as in industrialized countries which makes the distribution system de facto much more accessible for big firms from industrialized

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[391] Bellamy/Child 2001: 507, 7-024.
[392] Hovenkamp 1999: 438.
[393] Bellamy/Child 2001: 506, 7-023; 507, 7-024
[394] See Bellamy/Child 2001: 518-557.
[395] EU Green Paper on Vertical Restraints 1996: 22-25.
[396] For example in the following article this is presumed. The prospects for harmonization are considered as dim. Nevertheless, a market access principle is suggested, without proposing any changes in industrialized countries laws: Here is the proposal: "Accordingly we would add to the short list of principles for international antitrust: All nations should maintain and enforce a rule of law prohibiting enterprises with significant market power, including government enterprises, from engaging in exclusionary practices that foreclose market access, when such conduct harms consumers and the competitive process. Each nation's rule of law should be transparent." See: Fox/Ordover 1997: 420-425. Vertical restraints with no foreclosure effects should not be discussed on international level. Fox/Ordover 1997: 425.
[397] Calkins 1998: 213.
[398] Fox/Ordover 1997: 423.
[399] Calkins 1998: 213-214.

countries. On the other hand, it is perhaps not acceptable to state that the USA really has "quite open, fluid markets" which are making "harm from most vertical restraints relatively unlikely".[400] In sum, the industrialized countries must take into account the potentially damaging effects of vertical restraints on developing countries. Without a thorough analysis of this subject, which evaluates national pecularities in a fair manner, it does not make sense to demand market access principles or harmonization in this field.

4.4 R&D alliances and other forms of cooperation

In 1984 the National Cooperative Research Act (NCRA) became effective, covering R&D cooperations. Subsequently, production joint ventures were included, notably in the National Cooperative Research and Production Act of 1993 (NCRPA).[401] U.S. firms recieve favourable treatment. Only production joint ventures, whose main production sites are in the USA benefit from this recently adopted law. Furthermore only firms can benefit, if they come "from a country whose law accords antitrust treatment no less favorable to the United States persons than to such countries' domestic persons with respect to participation in joint ventures for production."[402] The aim of the NCRA was to "promote innovation" and "strengthen the competitiveness of the United States in world markets".[403] Notification of R&D alliances is not mandatory and it is estimated that a lot more of these agreements exist compared to those which are notified because the risk of being drawn in an antitrust lawssuit is very low.[404] It is provided that competition policy authorities should carry out a rule of reason weighing and it is suggested in the USA a market concentration between 20 and 25 per cent (in EU 20 per cent, now 25 per cent[405]) may lead to suspicion.[406] One aim of the NCRA was to make privat lawsuits more difficult, for example by reducing treble damages to single damages.[407] In reality, until the beginning of the 1990s, a proper weighing of anticompetitive effects did not take place.[408] There was no challenge or formal investigation of notified agreements.[409] In the EU the same critique applies. Most individual exemptions of R&D cooperations were allowed for reasons of efficiency enhancement without having weighed carefully between benefits and anticompetitive effects.[410] All in all it is concluded that possibilities for R&D cooperation for big firms were not significantly restricted, at least until the beginning of the 1990s.[411] In the USA a permissive attitude towards R&D cooperation is justified by efficiency gains, for example expensive research projects can be carried out more cost-effective if the firms cooperate.[412] Now these effects (and some more[413]) might well be realized in a certain

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[400] Calkins 1998: 214.
[401] Franz 1995: 115, 135-136, 154, 159. Similar arguments in Fuchs 1989: 75-89.
[402] Franz 1995. 154.
[403] Quoted in Franz 1995: 154.
[404] Franz 1995: 155.
[405] Bellamy/Child 2001: 324, 5-071.
[406] Franz 1995: 152; Fuchs 1989: 97-98, 492-495.
[407] Fuchs 1989: 99-100.
[408] This claim is based on research of Stockdale (1989, not in the literature list here), who discussed this issue with officials of the antitrust division, who admitted, that they usually only check, if the notifications are complete. An assessment of the competitive effects is not carried out. See: Franz 1995: 153.
[409] Franz 1995: 156.
[410] Franz 1995: 149.
[411] This conclusion is made 1990. Franz 1995: 150.
[412] Franz 1995: 152; the permissive attitude is stressed too in Fuchs 1989: 104, 145, 489-496.
[413] See detailed discussion in Franz 1995: 51-109.

number of cooperations. In other cases negative effects on competition might prevail. For example, market divisions, lesser competition among the participating firms, and slower speed of innovation or fewer innovations.[414] Harmful for competitors could be a refusal to licence.[415] Moreover, throught joint research and development entry barriers can be raised vis-á-vis potential competitors.[416] It has already been mentioned that R&D is not always extremely expensive and furthermore, another positive effect of joint research and development might be a lowering of entry barriers for specific firms.[417] At least in the industrialized countries the bigger firms which conduct own R&D benefit a lot from other firms R&D. In most cases the firms which report considerable R&D spillovers are firms that conduct substantial own R&D. Only on this condition, other firms seem to be inclined to share their knowledge with them. This means that firms which conduct no R&D are excluded from this, partially free, knowledge exchange.[418] Thus it is likely, that positive and negative effects might overlap and entry barriers may be lower in certain cases and in other cases they may become much higher. Summing up these ambivalent effects of R&D cooperations, it is recommended to the antitrust authorities, that notification should be made mandatory and that antitrust authorities should assess each and every case, in order to find out, whether positive effects prevail.[419] The permissive attitude both in the USA and the EU and Germany is critized.[420]

Notably in the 2000 U.S. Antitrust Guidelines for Collaborations among Competitors (now covering marketing too) in some detail possible negative effects of joint R&D, production, and marketing are mentioned. Production and marketing is regarded as especially sensitive because joint production might entail agreements on prices and joint marketing has the same effect like a merger because there, too, prices are usually fixed between the competitors, which amounts to a Sherman Act § 1 violation if the entities are independent. This will perhaps lead to a more suspicious treatment of these cooperations, however, safety zones are provided and restrictions can possibly be legitimized by an efficiency-defense.[421]

The EU block exemption, now covering R&D and licensing, has evolved into a more complex weighing instrument. The first block exemption for R&D cooperation was enacted in 1984 in order to keep pace with developments in the USA. A market share threshold of 25 per cent (earlier 20 per cent) has been introduced and certain restrictions are regarded as prohibited.[422] Still, there has been the possibility of granting individual exemptions. An exemptions was granted for example for R&D and initial commercial development of a new tyre by Continental

[414] Franz 1995: 95.
[415] Franz 1995: 159.
[416] Higher entry barriers can for example result from: R&D costs, scale economies in R&D, irreversible investments in R&D and production facilities for the innovative product, patents, selective subsidy distribution. These barriers are likely to be higher, if a firm is already selling a product and obtains additional first-mover advantages. Franz 1995: 70-74.
[417] Franz 1995: 74.
[418] Reporting from an unpublished study from Paul A. Geroski. See Franz 1995: 87.
[419] Franz 1995: 157-159.
[420] Franz 1995: 139-157; Fuchs 1989: 490-491. In Germany R&D cooperations must not be notified, therefore a lack of control is diagnosed. Immenga/Mestmäcker 1992: 175.
[421] In the case of R&D a safety zone is provided, and any kind of collaboration in this field is likely to be accepted if three or more other similar projects are carried out. See: Antitrust Guidelines for Collaborations among Competitors 2000:26-27, 28-35.
[422] Bellamy/Child 2001: 323, 5-071; 324, 5-072. For the old regulation see OJ L 53/5, Dec. 19, 1984, Regulation 428/85.

and Michelin which had a combined market share in the EU of almost 50 per cent.[423] Some decisions on strategic alliances were not covered under a block exemption. For example, the collaboration between Fiat/General Motors was allowed by exemption.[424] Since 1997 joint ventures, typically new firms jointly etablished by existing firms, sometimes competitors which benefit from existing production facilities, are partially assessed under Art. 81 and by the merger regulation.[425] What is the outcome? There were a number of spectacular cases in the telecommunications sector, for example a joint venture of BT and AT&T which was allowed with conditions and obligations. But the telecommunications sector seems to follow different dynamics and poses special problems.[426] In the TV sector joint ventures were prohibited or allowed with obligations.[427] In the field of manufacturing nearly all joint ventures were allowed. All in all, 48 joint ventures were investigated and in many cases low markets shares led to an approval.[428] Often two arguments played an important role: Firstly often the relevant geographic market was considered as worldwide and imports were regarded guaranteeing competition. And it is claimed that competition, even in concentrated structures, will remain intense. This made relatively tolerant decisions in some instances possible: for example markets shares for joint ventures of more then 40 per cent were tolerated (in the polypropylene and polyethylene business).[429] One joint venture was prohibited, Saint-Gobain/Wacker-Chemie and its project NOM. Shell/BASF/Project Nicole was allowed with obligations, although market shares of 35 to 45 per cent were involved and a powerful position was created.[430] Other forms of collaboration, technology transfer agreements, specialization/production agreements and franchising are now covered by block exemption criteria and in all of these cases individual exemptions are provided for.[431]

How dangerous some of the cooperation practices are can be illustrated by strategies of firms which were prosecuted for cartelization in the 1990s. After having paid the fines, they started to build up strategic alliances and joint venture networks, among themselves and with firms from developing countries, in order to limit the intensity of competition. In short, strategic alliances and joint ventures can be used as substitutes for cartels: This happened in the bromine case and in the case of steel tubes.[432]

In sum, U.S.-antitrust has been lenient in merger control enforcement. Merger control is not transparent, the guidelines are not followed and it seems that in quite a few cases merger control was completely defunct and

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[423] See: Bellamy/Child 2001: 314, 5-056; 316, 5-058.

[424] Bellamy/Child 2001: 348-350. See notification in OJ C179/8, 20.6.2000. No other information is available.

[425] After the last amendment of the merger regulation 1997, this practice started on March 1, 1998. To be sure, there was the JV notice 1993 bevor. For a detailed overview see: Bellamy/Child 2001: 278. 276-320.

[426] See BT/AT&T, case No IV/JV.15 of 30 March 1999. For an overview of some telecommunications cases see Calkins 1998: 321-325.

[427] For example Bertelsmann, Deutsche Bundespost Telecom, Kirch Group and its joint venture Media Service GmbH was not allowed. Calkins 1998: 312-324.

[428] I could only browse through some of them. In general it seems that low market shares is the principle reason why joint venture are allowed. In most of the cases the relevant geographic market was defined as worldwide or at least Europe-wide. See a list of decisions JV.1 to JV.48. 12.07.2002. In: http://europa.eu.int/comm/competition/mergers/cases/.

[429] See Bayer AG/Hoechst AG/JV Textile Dyestuffs, case No IV/M.534, p. 7, 11.

[430] See Saint-Gobain/Wacker-Chemie/NOM, case No IV/M.774 of 4 December 1996. See Calkins 1998: 315-316. With obligations, here the relevant geographic market is Western Europe: Shell/BASF/Project Nicole, case No Comp/M.1751, 29.03.2000.

[431] Bellamy/Child 2001: 291-296.

[432] Levenstein/Suslow 2001: 3-4. Evenett et al. 2002: 8-9. See below for a longer quote in the part on international cartels.

industrial policy consideration prevailed. This was an important reason for the merger wave in the Reagan period and is certainly one reason for the biggest merger wave in history, which is currently taking place. See Table 1. U.S.-economy will end up much more concentrated than before, whereby strengthening multi-plant advantages of U.S.-firms. This permissive attitude also applies to other fields of antitrust policy. Benign neglect for coordinated behavior was used for industrial policy purposes concerning the automobile industry. In some other fields of antitrust, since the beginning of the 1980s business strategies of firms recurring to price and nonprice vertical restraints have been treated tolerantly and sometimes there was no enforcement at all. Here the USA is most permissive, but the EU, too allows a considerable range of practices. While there are doubts, if this is problematic in all instances, there are a lot of cases where the effects are negative for consumers and for developing countries because entry barriers increased and the firms' market position was strengthened. Moreover, the types of cooperation that have been allowed, are typical for larger firms in developed countries. Through exchange of knowledge, spillovers, and joint activities, they managed to strengthen their R&D and their knowledge-base. It is likely that bigger firms from industrialized countries were strengthened by this practice, although there were negative effects on certain competitors, smaller firms, and firms from developing countries. Most developing countries were excluded from the benefits of R&D cooperation, negative effects were not investigated and that it is likely that in some sectors entry barriers have been rising vis-á-vis firms from developing countries. Moreover, R&D projects, especially those of big firms, were heavily subsidized by industrialized countries and consequently advantages (that is, market power and entry barriers) were artificially created vis-á-vis firms from developing countries. All in all, it is difficult to see why developing countries should be particularly grateful for this kind of 'free-market' antitrust policy in the USA and the EU.

4.5 EU

Concerning EU competition law only a few points can be stressed here. Generally, the numbers of challenged mergers are comparable to the USA. From a total of 1987 notified cases from 1990 until 2002 there were 59 mergers compatible with the rules with further commitments and 18 were prohibited.[433] In EU law it is provided to allow mergers for reasons of industrial policy but this has never been applied in practice: "development of technical and economic progress provided that it is to consumers' advantage and does not form an obstacle to competition."[434] Therefore it is difficult to draw conclusions on this aspect. These criteria are furthermore used to provide exemptions from Art. 81 (1), the cartel prohibition.[435] In general, thresholds for likely merger challenges seem to be somewhat lower than in the USA. In EU impediments to competition are unlikely to be seen under 25 per cent. In Germany at 33 per cent there is the presumtion of joint dominance and if there is a three firm

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[433] Art. 8 (3) prohibition: M.2416, Tetra Laval/Sidel, 30.10.2001; M.2187, Cvc/Lenzig, 17.10.200; M.2283, Schneider/Legrand, 10.10.2000; M.2220, General Electric/Honeywell, 03.07.2001; M.2097, Sca/Metsä Tissue, 31.01.2001; M.1741, MCI Worldcom/Sprint, 28.06.2000; M.1672, Volvo/Scania 15.03.2000; M.1524, Airtours/First Choice, 22.09.1999; M.1027, Deutsche Telecom/Betaresearch, 27.05.1998; M.993, Bertelsmann/Kirch/Premiere, 27.05.1998; M.890, Blokker/ Toys "R" Us (II), 26.06.1997; M.774, Saint Gobain/Wacker Chemie/Nom, 04.12.1996; M.784, Kesko/Tucko, 20.11.1996; M.619, Gencor/Lonrho, 24.04.1996; M.553, RTL/ Veronica / Endemol ('HMG'), 20.09.1995; M.490, Nordic Satellite Distribution, 19.07.1995; M.469, MSG Media Service, 09.11.1994; M.53, Aerospatiale/Alenia/De Havilland, 02.10.1991. See: Merger cases by decision type - Art. 8(3): In: http://europa.eu.int/comm/competition/mergers/cases/index/by_dec_type_art_8_3.html .

[434] Bundeskartellamt 2001: 6.

[435] Bellamy/Child 2001: 161-185.

concentration ratio at and over 50 per cent or a five firm concentration ratio at or more that 67 per cent.[436] Nonetheless, EU-merger control is not an example of principle-led fine-tuned decision making. Arguably, the decisions sometimes rely on simplistic reasoning and important factors are ignored. Similar to the USA, in a lot of cases mergers in concentrated markets, leading to high market shares, are allowed.[437] The treatment of oligopolies is undecided. In some cases symmetric oligopolies are regarded as anticompetitive, in other cases asymmetric market structures are favoured. Furthermore catching up mergers receive sympathetic treatment.[438] In the case of Daimler Benz/ABB it was decided that three competitors are sufficient to guarantee competitive market structures.[439] It seems, similar to the USA, that the emergence of oligopolistic structures cannot be prevented and, more often than not, mergers in tight oligopolies are tolerated.[440] At least in four cases mergers were allowed because of political (and private) pressures, despite serious doubts by the competition policy authorities.[441] For example, the merger between French and German steel firms (Mannesmann/Vallourec/Ilva[442]). Although, only two big European firms remain in this sector (the new DMV, with 36 per cent and the Swedish firm Sandvik, already 29 per cent) and the market analysis led to the conclusion, that although some form of collusion is very likely, the merger should be cleared because it was expected, that Japanese imports will lead to price discipline.[443] It is suggested that the motive for this decision was the wish to strengthen European vis-á-vis Japanese industry.[444] Later on, Mannesmann/Vallourec was convicted for its participation in an international cartel for seamless steel tubes.[445] The following thesis cannot be proven with a detailed overview ot the cases, but it seems that in a lot of merger cases relevant geographic markets are defined as global and imports are seen as facilitators of price-discipline, which are, among other reasons, good arguments for allowing mergers.[446] For example commodities, which are traded at international commoditiy exchanges are situated in worldwide markets[447] and this also applies for high-tech products and large engineered products.[448] In other cases EU wide regional markets are presumed. Admittedly, there are still cases where national or local markets are assumed.[449]

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[436] Bundeskartellamt 2001a: 2.
[437] Kerber 1994: 107-123, 130-132.
[438] Kerber 1994: 120, 122.
[439] See: Daimler Benz/ABB OJ L 11/1, 1996.
[440] Which might induce collusive behavior which reduces available product alternatives which might decrease incentives to innovate. Kerber 1994: 131-135.
[441] These cases were Alcatel/AEG Cabel, Mannesmann/Vallourec/Ilva, Kali+Salz/MDK/Treuhand, Mercedes-Benz/Kässbohrer. See Schmidt 1995: 980.
[442] See: OJ L 102/15, January 31, 1994.
[443] See: OJ L 102/15, January 31, 1994: 23. One smaller European competitor, Tubanex from Spain, openly declares in this case that it does not dare to undercut prices in the EU because it fears retaliation from the two big players. See: OJ L 102/15, January 31, 1994: 33.
[444] Schmidt 1995: 980.
[445] See below in the part on international cartels for more information in one of the footnotes. Evenett et al. 2002: 8-9.
[446] For example Thyssen/UGO, case IV/EGKS.1295, 8.10.1999. p. 4-5.
[447] See: Platinum, Decision of 24 April 1997 in Case No IV/M.619 - Gencor/Lonrho, OJ L 11, 14.1.1997, p.30; primary aluminium, Decision of 28 May 1998 in Case No IV/M.1161 Œ Alcoa/Alumax; silicon, Decision of 26 January 1999 in Case No IV/M.1330 Œ Pechiney/Samancor; for other minerals, see Decision of 7 December 1995 in Case No IV/M.660, RTZ/CRA. This compilation stems from decision: Air Liquide/BOC, case COMP/M.1630, 18.01.2000. p. 10.
[448] See: Large commercial jet aircraft, Decision of 30 July 1997 in Case No IV/M.877, Boeing/McDonnell Douglas, OJ L 336, 8.12.1997, p.16; magnet train systems, Decision of 9 March 1998 in Case NoIV/M.987 Œ Transrapid; electronic connectors Decision of 8 October 1998 in Case No IV/M.1314, Framatome/Berg Electronics; pulp dryers, Decision of 8 February 1999 in Case No IV/M.1379 Œ Valmet/Rauma. This compilation stems from decision: Air Liquide/BOC, case COMP/M.1630, 18.01.2000. p. 10.
[449] Bach 1992: 582.

All in all, geographic markets tend to be defined more wide. Authors warn that this could distract from evaluating whether there is really intense competition and whether competitors have sufficient ressources to challenge other large firms.[450] Moreover, some authors have doubts, if the commissioners, which are appointed by the member states act as independently as they should .[451] The commission has been critized for lax enforcement, for example by the President of the German Bundeskartellamt Dieter Wolf.[452] All in all, this policy has strengthened a lot of big firms.

For developing countries' own competition policies it is interesting that not only on German level, but on EU level crisis cartels ('restructuring agreements') are allowed. Two crisis cartels were allowed.[453] In one of the cases this was a bilateral crisis agreement between two firms, where the firms agreed to scrap capacity with the aim to avoid losses. Here the condition was mentionend that competition must prevail.[454] In general a crisis cartel should ensure that a "economically healthy structure of supply" is maintained and it is assumed that a crisis cartel makes it easier to close ineffecient plants, which should lead to welfare gains.[455] A "healthy" European industry is regarded as good for consumers even though cartels raise prices for consumers[456] und may delay structural change. It is too early in the day to claim that crisis cartels would be used in a defensive manner if import competition rises from developing countries, but this possibility cannot be completely rules out. Furthermore in the EU specialization agreements are possible, as soon as parties renounce the possibility to continue with separate development or the production of certain products.[457] A de minimis rule exempts SMEs from the cartel prohibition in Art. 81(1). It applies to firms which have not more than 5 per cent of the community market of certain products and the turnover does not exeed 300 million ECU.[458] This can strengthen these firms at the expense of the consumer and foreign competitors.[459] In this context, one can remind the reader that it is not long ago that the EU Commission imposed minimum prices and quotas concerning the steel industry[460] after having tolerated a private cartel (EUROFER) which was not successful in stabilizing the situation in the steel industry.[461] Not to speak of the DM 115 billion subsidies between 1975 and 1985 which were paid for modernizing and capacity reductions with an unsufficient outcome in capacity scrapping.[462] In the next part of the text some remarks are made about competition policy enforcement in EU member states because this clearly derogates from the picture of a liberal Europe under a unified competition policy approach:

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[450] In this sense the concept of 'subjective' markets is strengthened vis-á-vis an objective approach focusing on world market shares. See Fikentscher 1996: 571-578.

[451] Schmidt 1995: 984.

[452] See: 'Wettbewerbsrecht nicht aushöhlen' sowie 'Wolf als Rufer in der Wüste' in Süddeutsche Zeitung June, 6, 1995.

[453] Immenga/Mestmäcker 1992: 269; Bellamy/Child 2001: 224, 4-047. Fiebig 1999. See: 'Synthetic Fibres' BPCL/ICI, July 19, 1984, OJ L 212/1. And: Stichting Baksteen, April 29, 1994, OJ L 131/15.

[454] Bellamy/Child 2001: 225, 4-049. See BPCL/ICI, July 19, 1984, OJ L 212/1.

[455] Quote from the Commissions' 23rd Report on Competition Policy, p. 49, in Fiebig 1999: 625.

[456] Quote from 'Synthetic Fibres', that is BPCL/ICI (see footnote above). Fiebig 1999: 626.

[457] For more details see: Bellamy/Child 2001: 327, 5-080.

[458] See OECD Notice concerning agreements, decisions and concerted practices of minor importance which do not fall under Article 85 (1) of the Treaty establishing the EEC, OJ C 231/2, 1986, updated by OJ C 369, 1994.

[459] If foreign competitors do not benefit from the price umbrella created by the cartel.

[460] Bellamy/Child 2001: 224, 4-047.

[461] Krägenau 1986: 45-57.

[462] Krägenau 1986: 55.

4.6 Portugal

The first competition law was approved in 1983 and its enforcement was not very active. Portugal actively promotes 'national champions' and, in cases of conflicts with competition law, industrial policy objectives prevail. In its competition law state aids are not illegal, if they result from a government programme (Art. 11 of competition law). Portugal's state aid to industry is substantial. In the 1988-1992 period over 6 billion ECU were spent.[463]

4.7 Belgium

Until the end of the 1980s in Belgium price controls persisted. Firms had to notify price increases and these price suggestions had to be approved by the government. In other words, Belgium was completely cartelized. Government's rationale was to control inflationary pressure, but it is clear that these price controls were in the interest of the private sector too because this increased their revenues. Now price controls still exist in so called 'strategic sectors', pharmaceuticals, energy, and public utilities.[464] A new competition law was adopted on August 5, 1991, effective on April 1, 1993. The most important difference to EU law is that Belgian law provides for a efficiency defense. A merger can be defended on the grounds of the following arguments: "the merger creates cost efficiencies in production or distribution", "the merger enables the larger entity to perform better in technology development".[465] The other assessment criteria are similar to those employed in the USA and EU. Thus, in principle, a merger is assessed partially using welfare arguments which can overlap with industrial policy arguments. Furthermore mergers and "certain cooperation practices" between smaller firms are allowed, in order to help them to increase their exports.[466] It is concluded that Belgien antitrust policy can be characterized as "very lenient", but until 1998 there were no cases where these leeways were exploited.[467] One reason is given for this leniency: Belgium is a small and open economy in which small and medium enterprises account for a big part of welfare creation and employment. One aim of competition law is to strengthen those enterprises.[468] The other part of the economy is shaped by multinational firms, which account for half of manufacturing output.[469] Of 101 decisions on concentrations 2 mergers were blocked, 2 were conditionally approved, and one was withdrawn.[470] The 2 blocked mergers were local firms (one chocolate firm, one specialized distribution firm).[471] In Belgium abuse of dominance and other competitive practices have not been investigated so far, due to competition authorities' ressource constraints.[472] The competition authority is not seen as perfectly independent, since it relies on information provided by the Ministry of Economic Affairs.[473]

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[463] Barros/Mata 1998: 273, 306.
[464] Sleuwaegen/van Cayseele 1998: 190-193.
[465] Sleuwaegen/van Cayseele 1998: 196.
[466] Sleuwaegen/van Cayseele 1998: 197.
[467] Sleuwaegen/van Cayseele 1998: 198.
[468] Sleuwaegen/van Cayseele 1998: 197.
[469] Sleuwaegen/van Cayseele 1998: 186.
[470] Sleuwaegen/van Cayseele 1998: 202.
[471] Sleuwaegen/van Cayseele 1998: 202.
[472] Sleuwaegen/van Cayseele 1998: 202.
[473] Sleuwaegen/van Cayseele 1998: 202.

4.8 Netherlands

When in 1990 H. W. de Jong published the article 'The Netherlands: Europe's cartel paradise' for the first time a public discussion of this issue took place.[474] In 1987 a more determined effort was made by the authorities to counter cartelization.[475] In 1989 an investigation was made finding that there were 240 competition agreements, and 109 horizontal price agreements, of which 40 per cent persisted for more than two decades and 19 per cent survived at least 10 years.[476] There were wide differences concerning the usage of cartels in specific industry sectors (for example metal industry 11 per cent, food drink and tobacco 6 per cent, 2 agreement in chemicals, one each in clothing, electronic articles), implying that the overall impact of cartels on the Dutch economy is difficult to assess.[477] In 1992 data on 201 market sharing agreements were published, most of them in the building sector and transport.[478]

4.9 France

In France the government traditionally intervenes in the economy. After the Second World a significant part of industry was nationalized and there were price controls and subsidies.[479] A meaningful competition policy was enacted in 1977.[480] One of the reasons was the pressure on European level for a European merger control. France opposed this, and the political strategy to avoid European merger control was to adopt an own merger control, with a relatively high market share challenge-threshold of a post-merger share of 40 per cent for horizontal mergers.[481] Neither was there a compulsory merger notification, nor did the government refrain from encouraging mergers, in order to get firms to compete in international markets. Indeed, the merger law was used to disencourage foreign investors' plans to buy French firms.[482] During the period form 1977 until 1986 only 8 mergers were investigated.[483] Even after an amendment of the law in 1986, by which the free market model was accepted for France, the Minister of Economic Affairs remained responsible for the final decision in merger cases.[484] An industrial policy exemption is included in the French merger control regulation: Art. 2 Para. 1 (b).[485] Between 1992 and 1995 there were 32 cases submitted to the Conseil de la Concurrence, only in a few cases the Conseil spoke out against a merger and in some cases the Minister overruled decisions of the Conseil.[486] In the assessment of mergers, international competitiveness concerns play an important role. Mergers are allowed if the international competitiveness of firms is enhanced, even if competition inside the French markets lessens.[487] It

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[474] Asbeek/Griffiths 1998: 15.
[475] The authors differentiate between a pro-cartel phase (1935-1956), a period of indifference (1956-1987) and "the current anti-cartel drive" (1987-1997). See: Asbeek/Griffiths 1998: 16.
[476] Asbeek/Griffiths 1998: 24.
[477] Asbeek/Griffiths 1998: 24.
[478] Asbeek/Griffiths 1998: 25.
[479] Souam 1998: 206. These plans are mentioned in Demarigny 1996: 158-159.
[480] Souam 1998: 207.
[481] Vertical merger 25 per cent share. Souam 1998: 208.
[482] Souam 1998: 208.
[483] Souam 1998: 208.
[484] Souam 1998: 211.
[485] Schmidt 1995: 979.
[486] Souam 1998: 225.
[487] Souam 1998: 225.

has already been mentioned that restructuring during nationalization in the beginning of the 1980s and other support policies had a considerable impact on industry structure.[488] Early investigations show, that a concentration trend has persisted in France since the 1960s. In 1969 already circa 30 per cent of the industries had four-firm concentration ratios of 60 and more (USA 17 per cent).[489]

4.10 Italy

In Italy active competition policy began in 1992, at the date of the completion of the European Single Market. There was, and still is, widespread government involvement in the economy in Italy. Priority for the newly created competition authority is to oversee the deregulation of significant parts of the economy, for example telecommunication.[490] The control of big mergers is seen as the task of the EU merger enforcement, and despite an immense work-load in merger cases (2527 cases), only 2 prohibitions were issued.[491]

4.11 Germany

This country is usually regarded as one of strict merger enforcement and other jurisdictions seem to look at Germany with contempt because its low thresholds for merger challenges. Arguably, this picture is misleading. Germany's competition law provides for a unique procedure, by which mergers in oligopolistic markets are evaluated. In 1976 the competition law was amended for reasons of ineffectively preventing the establishment of oligopolies and a special section (§ 23a (2)) was added which provided that merger should be closely investigated, if two or three actors have markets shares at or above 50 per cent (or alternatively, there are 5 firms with a share of 66 per cent).[492] For example, the finding of a dominant market position which allows to prohibit a merger, is for example made if one firm has 49.5 per cent market share and two others 24 per cent.[493] Now these threshold are more flexible than it seems, because an economic council changed the meaning of these acticles and made the threshold more flexible throught the introduction of a weighing clause ('Abwägungsklausel', § 24 (1) now § 36 (1)). Due to this clause it became the task of firms to show that after a merger the intensity of competition would not lessen or that the firms have no dominant position in the markets, relative to other firms.[494] These, and other aspects of German competition law, leave space for so-called catch up mergers (Aufholfusionen), while smaller firms are allowed to merge, in order to catch up with bigger competitors.[495] Furthermore, mergers are allowed, which lead to anticompetitive effects in some markets because in other markets competition gets more intense. More competition in one market can compensate for less competition in other markets.[496] For example Hoechst

[488] Some references are given above. Here it is sufficient to refer to Hall 1986.
[489] Jenny/Weber 1978: 194.
[490] Gobbo/Ferrero 1998: 251-252.
[491] Gobbo/Ferrero 1998: 259.
[492] Immenga/Mestmäcker 1992: 1043.
[493] Immenga/Mestmäcker 1992: 1079, 1085.
[494] I have done my best to translate this accurately, still the words may not perfectly fit. Immenga/Mestmäcker 1992: 1041, 1113-1121.
[495] Immenga/Mestmäcker 1992: 1041-1043.
[496] To be sure, the competition enhancing effects must be greater than the anticompetitive effects. The law makers intended that the procompetitive effect should happen in markets which are already concentrated. This intention was ignored in practice,

strengthened its dominant market position by its merger with a French pharmaceutical firm. This would have led to a prohibition of the merger. But because the R&D ressources of the French firm were strengthened by its merger with Hoechst, competition in the French concentrated pharmaceuticals market has been intensified. All in all, antitrust authorities came to the conclusions, that the latter compensates for the former anticompetitive aspects of the merger.[497] Experts admit, that this option in practice leads to decisions with industrial policy bias.[498]

Concering parallel pricing and other forms of behavior, which presumably amounts to cooperation, not much enforcement has taken place. Since 1973, when § 25 Abs. 1 GWB was added to cover concerted actions in a broader sense, 41 cases were pursued and in 5 cases offending firms had to pay a fine. Competition authorities on the level of the German states ('Bundesländer') notified 258 cases which in 45 instances have led to fines. Commenting on it, this is not regarded as a successful and effective implementation of this new aspect of German competition law.[499] Nevertheless, is seems that other countries pursued no such cases at all.

In Germany's competition law there are exceptions from the prohibition of cartels. Here are some numbers. Export cartels: until 1973 there were 115 export cartels in force and in that year 69 remained.[500] Rationalization cartels: these are cartels where raising of the price through price fixing should pay for the modernization of the industry.[501] In the more recent literature the numbers of theses cartels are played down, because earlier figures are not mentioned. Of simple rationalization cartels 3 were in force in the end of 1988. In 1988 rationalization cartels of higher order (Syndicates) were in force in 9 cases.[502] In the early times of German industrialization there were more: simple rationalization cartels: 17 were in force during the 1950s and 60s, in 1973 only 3 remained. Higher order rationalization cartels: since 1958 there were 29 in force (of 73 which were applied for).[503] Specialization cartels: between 1958 and 1963 there were 6 specialization cartels. Then the criteria the firms had to comply with were eased in 1965. From 1965 until 1972 competition authorities accepted 71 specialization cartels. In the end of 1972 there were 51 specialization cartels in force, mostly in textiles, machine tools and the electrical industry.[504] Between 1973 and 1980 numbers were no longer statistically collected. Until the end of 1988 there are 124 specialization cartels which remain notified.[505] Crisis cartels: until the end of 1988 in 9 cases crisis cartels were

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meaning that all kinds of procompetitive effects in other markets were used to justify mergers. Immenga/Mestmäcker 1992: 1119-1120.

[497] Immenga/Mestmäcker 1992: 1117.

[498] "Die Praxis des BKartA zeigt, daß die Abwägungsklausel zu industriepolitischen Ermessensentscheidungen führen kann. Ein Beispiel ist die Nichtuntersagung des Erwerbs der Anteile and den Chemischen Werken Hüls durch die VEBA mit der Begr., dadurch werde VEBA ein Gleichziehen mit den übrigen Anbietern der Großchemie ermöglicht." Immenga/Mestmäcker 1992: 1120. In short: The weighing clause can lead to decisions with industrial policy character.

[499] "Diese Entwicklung legt die Annahme nahe, daß das Verbot abgestimmter Verhaltensweisen gegenüber Großunternehmen auf oligopolistischen Märkten in der Bundesrepublik kaum greift." (This tendency implies, that the prohibition of concerted actions is ineffective, especially concerning big firms in oligopolistic markets. Own translation). Immenga/Mestmäcker 1992: 1182.

[500] Bundeskartellamt 1973: 14.

[501] Immenga/Mestmäcker 1992: 303.

[502] Immenga/Mestmäcker 1992: 285.

[503] Bundeskartellamt 1973: 13-14.

[504] Immenga/Mestmäcker 1992: 14.

[505] Immenga/Mestmäcker 1992: 315.

applied for, in 2 instance they were allowed in the building materials industry. As a consequence, this option is negligable.[506]

Not only in South Africa[507] but in industrialized countries there are, in addition to de minimis thresholds, exemptions for the treatment of small and medium enterprises, which tolerate cartels among them. For example in Belgium.[508] In Germany small and medium firms can be exempt from the prohibition of cartels, if this leads to efficiency gains which compensates for disadvantages they have vis-á-vis bigger firms (for example scale economies). Joint distribution, production, R&D and specialization agreements are covered. Here clearly precarious forms of collaboration are tolerated, like joint processing of orders or a joint accounting office. In the end of 1988 there were 143 collaboration contracts among SMEs and in the year 1984 there were 1400 firms which participated in these agreements.[509]

Germany is famous for its special allowance by the ministry of economics ('Ministererlaubnis'). It stretches out to mergers (§ 24.3) and to cartels (Sonderkartell § 8).[510] In 13 merger cases industry applied for a Ministererlaubnis. In 3 cases this was denied, in 4 cases applicants withdrew their request, and in 6 cases the merger was allowed but on condition that changes took place (for example Veba/Gelsenberg, Veba/BP, Daimler-Benz/MBB).[511] Recently, the E.ON/Ruhrgas merger has been allowed, with obligations.[512]

4.12 Japan

In March 1947 the Japanese Antimonopoly Law was adopted and the Fair Trade Commission (FTC) established. Many provisions were similar to U.S. law. In the 1950s the law was considerably modified, partially under the influence of German antitrust law. In 1952 a law was passed which treated business associations, these are organizations which favour collusive behavior, much better than before. Moreover, small and medium enterprises were exempted from cartel prohibition, and furthermore, export cartels were allowed. In 1953 the Antimonopoly Law was amended, exemptions for recession and rationalization were added, and some per se prohibitions were deleted. On the other hand, abuse of dominance was added. Between 1953 and 1957 ten more laws were passed which opened the possibility for industry-sector related ministries to allow rationalization cartels, if they were based on rationalization plans of the ministries, for example laws for the temporary support of the heavy industry and for the temporary support of the electrical industry. Other laws allowed recession cartels and a coordinated reduction of production in specific sectors, for example in the coal and textile industry, on condition that the FTC gives its approval.[513] From early on cartels were allowed, for example under the early Machinery Industry Promotion Temporary Measures Law May 1956 which aimed to promote small and medium-size

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[506] Immenga/Mestmäcker 1992: 269.
[507] This way it is presented in ICPAC 2000: Chapt. 2, p. 4.
[508] Schröter 1999: 2/131.
[509] This evaluation stems from me and not from Immenga/Mestmäcker 1992: 329-330.
[510] Immenga/Mestmäcker 1992: 405, 1149.
[511] Immenga/Mestmäcker 1992: 1150. There have been no new cases in the meantime. See Lentfer 1998.
[512] See: http://www.bmwi.de/Homepage/Presseforum/Pressemitteilungen/2002/2705prm1.jsp
[513] The FTC had to Iyori et al. 1994: 7-13.

enterprises.[514] Partially, these cartels were used for standardization purposes.[515] See Table 15. For example in 1957 more than 20 industry sectors coordinated production restrictions, and although the FTC was opposed, it decided not to interfere with MITI guidance.[516] In the following year MITI made an unsuccessful attempt to push through a law which should promote big firms to enhance the competitiveness of Japanese industry. Again in 1978 the recession led to new industry stabilization laws. A follower law was approved in 1982. In 1987 these measures were abolished and a law was enacted, where cheap credits, tax exemptions were provided but no longer exemptions for certain industries.[517]

Three aspects are important in the context of the present discussion: The acceptance of recession and rationalization (and specialization) cartels, the encouragement of business tie-ups to strengthen industry and the industrial policy attitute towards mergers. Until now, rationalization cartels are an option of Japanese antitrust and industrial policy (recession cartels have been abolished more recently[518]). These policy options allowed the pursuit of different objectives and helped to solve crises situations in specific businesses. In order to avoid misunderstandings: Japanes economic growth as such cannot be blamed on these measures. The vigorous efforts of the private sector and its autonomous decision-making contributed much to it. In some instances the measures which are discussed below are in some sense provoked by the private investment boom. Moreover, government control ('administrative guidance' etc.) obviously has not been perfect in all cases. Still there were some cases, where it worked.[519] Here the argument is that the measures Japan used might be warranted in economic crisis situations and perhaps can even be justified to enhance domestic efficiency and welfare. Even if the impact of the various laws and measures was moderate in the aggregate, it did have a positive effect on the strength of the industries involved. This is all the more true in the light of the permissive Japanese merger policy. It is therefore natural to ask why considerably weaker developing countries should refrain from taking similar measures.

All in all, the FTC has approved 73 recession cartels (or 'crisis cartels'), provided for in § 24-2 Japan Antimonopoly Law 1992. Of those recession cartels, 54 were aimed at restricting production, 25 were aimed at restricting investment (to prevent capacity increases) and 5 dealt with agreements on price levels.[520] In 15 cases rationalization cartels were allowed due to § 24-4. Of those, 9 were relating to product quality, 4 to the manner of production, and 2 related to the usage of inputs. After 1982 no rationalization cartels have been used.[521] Under the heading of rationalization specialization cartels were allowed too. Here cartels concerning automobile parts

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[514] Kosai 1988: 31, 39-43.
[515] Kosai 1988: 42.
[516] Iyori et al. 1994: 12.
[517] Iyori et al. 1994: 15-16.
[518] See: Communication from Japan, WT/WGTCP/W/157, 3 January 2001, p. 4.
[519] See Miwa 1988: 475-476. The plans of MITI and other agencies were ignored in the automobile industry, in the steel industry (if one excludes the Yawata/Fuji merger). See on automobiles Mutoh 1988; on steel Yamawaki 1988. See for Yamawaki (1989) for a comparison between profit behavior in Japan and USA. He claims that in Japan capital intense industries followed a pattern of overcapacity, erosion of profits and afterwards MITI intervention. In the USA profits were much more stable. Here this is blamed on MITI intervention. In other cases, for example, shipbuilding, the plans were adhered to. See text below.
[520] Iyori et al. 1994: 127.
[521] Iyori et al. 1994: 128.

and synthetic fibres deserve to be mentioned.[522] Obviously cartels can encompass standardization and other cartels and this is one reason, why sometimes a considerable number of cartels can be found in statistics.[523] See Table 16.

It is important to note that the laws were not aimed at cartelization alone. The were designed for giving broad support to business. Other tools were fiscal incentives, loans by government institutions and import restrictions.[524] An equally important aim was capacity reduction, sometimes enforced through restrictions on investment. Capacity reduction has the effect that supply declines until prices and profits rise and it becomes more likely that industrial sectors survive eventually.[525] In turn, the rise of prices is seen as compensation of the capacity reduction.[526] In the end of the 1970s anti-depression laws allowed price cartels and cooperation in capacity reduction to raise prices, and helped certain Japanese industries to overcome recession[527] and to remain relatively strong.[528] A few years later, in 1983, a second law was passed, in effect until 1988, which went considerably further. It encouraged business tie-ups, that is production, transportation, or marketing agreements and even mergers among firms of the same industry. Although the FTC had to approve it, there were apparently no problems to get these permissions.[529]

What were the effects of these policies? Shipbuilding was build up with the help of large scale government finance.[530] In the shipping industry government successfully enforced concentration[531] until 6 large groups were established in 1964.[532] A depression cartel was allowed by the FTC from 1979 until end of 1981[533], limiting output.[534] Already in 1976 a reduction of production and capacity adjustments were demanded by the Ministry of Transport.[535] There is no doubt that there was a recession: shipbuilding orders declined from 1973 = 100 to 1978 = 10.[536] The Shipbuilding Law empowered the Ministry of Transport to refuse approval for new constructions and extensions of docks and production sites.[537] A major restructuring was carried out, backed by The Law on Specified Shipbuilding Stabilization Association (adopted on October 18, 1978)[538] which provided a special exemption of shipbuilding from antitrust law.[539] The stabilization organization purchased 9 small and inefficient

[522] Iyori et al. 1994: 128.
[523] Iyori et al. 1994: 126-128.
[524] Kosai 1988; for Steel Yamawaki 1988: 276-288;
[525] Iyori et al. 1994: 127.
[526] Peck et al. 1988: 197.
[527] Peck et al. 1989: 219.
[528] This is my evaluation and not that of Peck et al. 1989.
[529] Peck et al. 1989: 232-234.
[530] Yonezawa 1988: 425-437
[531] Yonezawa 1988:
[532] Iwasaki 1988: 505.
[533] Yonezawa 1988: 439.
[534] The first cartel, effective from August 1, 1979 until March 31, 1982, limited the output of each shipbuilder to 39 per cent of its previous peak output. A second cartel, in force until March 31, 1982, restricted output to 51 per cent of the previous peak. See Peck et al. 1989: 224.
[535] Yonezawa 1988: 437.
[536] Yonezawa 1988: 437.
[537] Yonezawa 1988: 439.
[538] Yonezawa 1988: 439.
[539] Peck et al. 1988: 222.

shipyards which were shut down. All other shipyard reduced their capacity by substantial amounts and inefficient establishments were shut down first: large firms (40 per cent), medium sized I (30 per cent), medium sized II (25 per cent), small (15 per cent).[540] As the prices went up again, the shipping industry voted for a quick end of the cartel, which nevertheless was continued for one year.[541] Subsequently, world demand went up again.[542] Even if it is concluded that government policies played only "a secondary role" compared to other factors which shaped the business environment in those years, it seems that this role is not completely negligable.[543]

What happened to the other industries, designated as depressed industries in these years? See Table 17. Between 1978 and 1983, in total 14 industries were included in this category (among those: shipbuilding), encompassing a market of $ 80 billion.[544] Of these 14 industries in 8 cases cartels were formed, 6 in concentrated industries.[545] Similarly, there were efforts to reduce capacity. On average, 14 per cent of capacity was reduced.[546] See Table 18. Yes, it is true that some industries refused to adhere to MITI's plans.[547] Nevertheless, the goal of price stabilization was achieved in 9 out of 12 cases. The 3 cases where prices were not rising belong to groups where this is easy to explain: textiles (with its decline in comparative advantage) and steel, where simply too much overcapacity persisted.[548] In 1983 a new law (Temporary Measures for the Structural Adjustment of Specific Industries) became effective, covering the period until 1988 and adding 11 new industries (shipbuilding and textiles were put under separate laws). Capacity reductions (roughly 20 per cent) were envisaged. Notably, fertilizer producers, synthetic fibre, and paper products were included. Of interest is here, that this law provided for 'business tie-ups', that is contractual agreements of firms within the same industry sector concerning production, transportation, marketing agreements or mergers.[549] For example, the unutilized capacity of one firm can be used be another, if it currently has enough orders. Or cost effective joint transportation is allowed. The most far reaching option provided for are certainly joint marketing agreements. Here the FTC intervened and approved such agreement only if the market share is below 25 per cent. In three industries, joint-sales companies were established, transforming industries with 12 or more sellers into industries with 4 seller, thereby increasing concentration substantially. As a consequence, it became more easy to raise prices, which was intendet to compensate for capacity reductions facilitating adjustment.[550] See Table 19.

Sometimes the FTC tried to influence mergers cases but this had only very moderate impacts. The Yawata and Fuji Steel merger was investigated by the FTC and allowed (in May 1969) on condition that in critical fields, stockholdings had to be sold and technology had to be given to competitors.[551] Nevertheless it might not be

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[540] These planned reductions were more or less achieved. For details see Peck et al. 1988: 222-223; Yonezawa 1988: 440-441.
[541] Yonezawa 1988: 439.
[542] Peck et al. 1988: 224.
[543] Yonezawa 1988: 447.
[544] Peck et al. 1988: 198.
[545] Peck et al. 1988: 203.
[546] Peck et al. 1988: 212. See for details Peck et al. 1988: 207-215.
[547] Peck et al. 1988: 213.
[548] This evaluation does not follow the more sceptical assessment in the text, but it is plausible. See: Peck et al. 1988: 219. The thesis concerning steel can be supported with the text of Yamawaki 1988.
[549] The last few sentences rely on Peck et al. 1988: 230-232.
[550] Peck et al. 1988: 232-234.
[551] Iyori et al. 1994: 56. More details are given in Yamawaki 1988: 300-301.

adequate to consider this as a major victory[552] for Japanese antitrust in the field of mergers, because in the end the merger was allowed and there was so much pressure that the chairman of the FTC resigned the day after the decision. No other mergers were stopped or were in some other sense substantially affected by the FTC (also there were hearings on 3 more cases).[553] The steel merger had government support. A industrial restructuring policy was pursued with the aim "of improving overall efficiency in the industry by strengthening international competitiveness and preventing excess investment."[554] Nippon Steel emerged with over 30 per cent market share in semifinished products and ordinary steel products. Domestic prices rose after the merger, obviously due to increasing market power of the newly created entity, export prices were lower and other producers reduced their investments.[555] Other ways of government influence took place some years earlier: In the years directly following Second World War the steel industry in Japan developed under government influence. Until 1960, government coordinated investment, afterwards this was done by the industry and this was successfull until 1967. Later, individual firm decisions became dominant.[556] A list price system instituted under administrative guidance of MITI eroded similarly after initial success.[557] The petroleum industry was put under pressure, but there too it were difficulties for MITI to make them agree on a single policy.[558] Thus again, a roughly similar pattern emerges: MITI was not successful to prevent new investments and price competition, often induced by overcapacities. Nevertheless, it intervened and at least a short time stabilization could be achieved through an encouragement of cooperative behavior. In the 1960s large mergers established Mitsubishi Heavy Industries.[559] Between 1964 and 1975 it can be shown for 18 large scale mergers that two-thirds show an improvement of profits.[560] Over half of the larger scale mergers are horizontal mergers.[561] In the long run mergers have not been leading to increased concentration. Nippon Steel market shares fell and in other cases strong competitors emerged in the markets.[562] All in all, the example of Japan shows that it can be justified to use cartel exemptions in certain cases. Furthermore, it shows that industrial development can take place without determined merger enforcement. Considering the obvious advantages Japan has due to its industry structure it appears to be difficult to justify that certain developing countries should adhere to much more strict competition policies.

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[552] This is the way it is presented in a WTO communication from Japan to the Working Group on the Interaction between Trade and Competition Policy, WT/WGTCP/W/157, 3 January 2001, p. 4.

[553] Iyori et al. 1994: 56.

[554] Yamawaki 1988: 303.

[555] Yamawaki 1988: 300-301. More details in Odagiri 1997: 82-83. It was of concern that the two firms had 100 per cent market share in railway rails, 61.2 per cent in tinplate for food cans, 56.3 per cent in foundry pig iron and 98.3 per cent in steel piles. It is not made explicit in this article, whether the remedies included selling of assets in those highly concentrated markets. It seems that this was not the case. It is mentioned that transfer of equipment and technological know-how and the sale of stocks was regarded as sufficient remedy. Odagiri 1997: 82. Moreove, market shares of the big five Japanese steel firms stayed stable from 1971 to 1991. Nippon Steel's share declined only slighly, from 44.0 to 41.1. Odagiri 1997: 83.

[556] Yamawaki 1988: 285, 292-294. See for even more sceptical observations concerning the influence of government in the steel case. Miwa 1988: 475-485.

[557] Yamawaki 1988: 2295-299.

[558] Miwa 1988: 487-493.

[559] Iwasaki 1988: 507.

[560] For 44 major merger cases no improved rates of profit can be shown if the three years before and after are compared, but if a five year period before and after is chosen, the above mentioned profits increases can be shown. Iwasaki 1988: 508.

[561] Iwasaki 1988: 509.

[562] Iwasaki 1988: 510.

4.13 Canada

In 1910 the merger provisions of the Combines Investigation Act came into effect and since then only nine cases were contested by the government in the courts. Not one case was successfully prosecuted, although in two cases the merging parties were pleaded guilty.[563] In 1985 Canada's new Competition Act was enacted.[564] Its merger control criteria deserve to be mentioned. First of all Canada's market share thresholds for merger control are set relatively high because Canada regards itself as small open economy which has high levels of industrial concentration and whose domestic competition is largely checked by foreign imports.[565] Even if Canadian companies are large relative to the domestic market they are seen as too small to compete with foreign firms at home or abroad.[566] Although the efficiency analysis has not been used to approve mergers (in one case a provisional approval was based on it), there exists evidence that efficiencies were discussed and that this has helped to decide not to challenge particular mergers.[567] It furthermore "appears" that, if strong import competition is found, mergers which generate scale economies are permitted.[568] Like in the USA, many factors are considered to find out, if a merger is approved or not. Canada's law is, however, different to U.S. law because for instance efficiencies are considered as a complete defense (not as one factor among many others) and a merger may be allowed to proceed if it "has brought about or is likely to bring about gains in efficiency that will be greater than, and will offset, the effects of any prevention or lessening of competition that will result from the merger".[569] Factors which are regarded as efficiency enhancing are "(a) a significant increase in the real value of exports; or (b) a significant substitution of domestic products for imported products."[570] In other words, Canada does allow mergers if they are efficiency enhancing, but contrary to common expectations efficiency means export promotion and import substitution. This does not only amount to industrial policy, but looks like a model competition law for a developing country. This is stressed in the purpose clause of the Competition Act 1985: "The purpose of this act is to maintain and encourage competition in Canada in order to promote the efficiency and adaptability of the Canadian economy, in order to expand opportunities for Canadian participation in world markets while at the same time recognizing the role of foreign competition in Canada, in order to ensure that small and medium-sized enterprieses have an equal opportunity to participate in the Canadian economy and in order to provide consumers with competitive prices and product choices."[571]

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[563] The reason for this was that in court a merger could only be challenged if it was 'beyond any reasonable doubt' violating merger provisions. On the resolution of merger cases there is no detailed information publicly available in Canada. Khemani/Shapiro 1993: 161.

[564] Canada Competition Act 1985.

[565] Comment related to Sec. 4.2.1 Canadian Merger Enforcement Guidelines, March 1991. No challenge is foreseen, if postmerger market share is not more than 35 percent, based on the analysis of the unilateral impact of the firm. Moreover, if the four largest firms have a market share of less than 65 per cent, and if it is less then 10 per cent, it is not challenged. See Warner 1994: 1086.

[566] Khemani/Shapiro 1993: 162.

[567] Khemani/Shapiro 1993: 165, Footnote 10; Warner 1994: 1090.

[568] Warner 1994: 1091.

[569] Canada Competition Act 1995: S.96.

[570] Canada Competition Act 1995: S.96.

[571] Canada Competition Act 1995: S.1.1.

4.14 South Korea

The Korean government has played an active role in the economy in the past.[572] There are even authors, who stress the comprehensive nature of regulation.[573] 'Comprehensive' can be understood to refer for example to the policy towards the automobile industry. Here some firms were selected and only these firms were allowed to enter into this industry. It was furthermore regulated by the state into what kind of models a firm could produce: small, medium, luxury cars or trucks.[574] The domestic market was reserved for domestic firms, in order to let them achieve economies of scale and, in order to let them aquire skills through a long learning process. This goal was furthered by forced exit and forced specialization. For example, Kia was forced to exit the passenger cars production and had to engage in producing buses and trucks, with the promise that it would be allowed to come back if demand conditions improve.[575] In the heavy industry and machinery sector four power generating firms were merged into Korea Heay Industries and Construction Co. which was subsequently nationalized in order to keep it alive with state support.[576] In the naval diesel engine industry, Daewoo was forced to exit and the two remaining firms were forced to specialize on specific engine types. Similar specialization arrangements were made in the electronic-switching-system industry (Samsung, Gold Star, OPC and Daewoo) [577], obviously to achieve some scale economies. In shipping, overseas construction and in the fertilizer industry the state organized major reorganizations, mergers and liquidations. For example 63 shipping industries were merged into 17. Between 1986 and 1988, there were mergers and liquidations of 82 inefficient firms, 23 from shipping and overseas construction.[578] Incentives were provided by the government for successful firms taking over failing one, if this was in accordance with industrial policy objectives.[579] In sum: There has been investment coordination, to enable firms to make profits, to achieve high investment levels and to avoid mass entry and subsequent price wars. For similar reasons, there was forced exit. Interestingly, there were not only rationalization programmes, but an industry could even be forced by the state to carry out rationalization programmes.[580] All in all, forced mergers, forced specialization and rationalization programmes were used in order to create modern, competitive industries with sufficient scale.[581] In addition, the chaebols were continuously encouraged to increase their efficiency through a system of incentives which basically worked through the threat of loosing all government support (which means the de facto end of the firm), if the firms fails to achieve growth and export goals. In its East Asian Miracle study the World Bank concludes that the Korean state artificially created "effective contests".[582] Even if one is open minded, it is difficult to acknowledge that genuinly liberal principles worked here. Thus, the thesis that only open and competitive markets lead to efficient outcomes can only be maintained in a qualified manner. Moreover,

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[572] Graham 1996: 16-19.
[573] Graham 1996: 16.
[574] Kim 1993: 81, 87.
[575] Chang 1994: 122.
[576] Chang 1994: 122.
[577] Chang 1994: 122.
[578] Chang 1994: 122.
[579] Graham 1996: 16.
[580] Chang 1994. 114.
[581] Chang 1994: 115-117; 122.
[582] World Bank 1993: 260-261. Nonetheless the World Bank is still of the opinion that market forces have dominated. World Bank 1993: 260. It is pointed out that the chaebols as group were priviledged but that they were not immune from state interference as single agents. This can be shown by considerable fluctuation in the top 10 of the chaebols. Chang 1994: 123.

the policy of encouraging scale and concentration can be described as "virtual antithesis of competition policy".[583] It is true, that the chaebols were diversified and therefore some competition took place. But in specific industries there were only very few chaebols which dominated this area. Moreover, the vertical intergration (steel, automobiles, trading, distribution) of the chaebols deserves to be mentioned. This points at advantages which are provided by the bigness of these firms, like minimized transaction costs. Moreover, economies of scale and scope can be mentioned. It can be shown that firms affiliated with a chaebol business group are more profitable than independent firms.[584] Though the structure of the Korean economy was not one of simple monopoly, in some markets and subparts of the markets monopolies were allowed. In 1977 36 per cent of industrial goods were manufactured by monopolists or dominant firms, defined as those who occupy no less than 70 per cent of the market. Another 15 per cent of industrial goods were manufactured by duopolists, where two firms have a share of no less of 50 per cent of the market. Only 14 per cent are classified in the competition-type category.[585] The share of the 30 largest groups in Korean manufacturing and mining peaked 40 per cent in 1985 and fell to 30 per cent until 1990.[586] Korean concern about this concentrated structure and U.S.-pressure to open markets were the reason why Korean policymakers adopted a competition law in 1980 (Monopoly Regulation and Fair Trade Act).[587] Nonetheless, it must be acknowledged that Korea growth took place although there were concentrated industry structures. Both industrial policy and industry structure is mirrored in Korea's antitrust law. The Monopoly Regulation and Fair Trade Act provides, in Chap. 3, a broad exemption for mergers which achieve industrial rationalization or which strengthen international competitiveness.[588] Anyhow the merger guidelines apply to horizontal and vertical mergers and not to conglomerate mergers, although this is the most important structural feature of the Korean economy.[589] Only two mergers have been challenged so far. An unkown number underwent investigation and modification by the Korean Fair Trade Commission (KFTC) and other government agencies.[590] The KFTC was very much under the influence of the Economic Planning Board (EPB), whose task was industrial policy. Although it now reports directly to the prime minister, overall it seems likely that its independent decision-making is restrained until now.[591] In 1991 a policy was introduced where chaebols could select their 'core' competencies and they benefitted from antitrust law exemptions.[592] Cartels are prohibited in Korea antitrust law but may be authorized for overcoming depression, for the purpose of rationalizing, to promote research and development, to promote industrial restructuring, to rationalize terms-of-trade and to strengthen the

[583] Graham 1996: 16.
[584] Why the profits are higher is not explained here. It is mentioned that some preferential treatment could be one of the reasons. Chang/Choi 1988: 155.
[585] The author does not reach 100 per cent. Yang 1991: 1-5.
[586] Graham 1996: 32.
[587] Graham 1996: 17-18. In force, April 1, 1981. Extensive amendment in December 1986, which is in force since April 1, 1989.
[588] Yang 1991: 1-8. The Minister must agree: Criteria are: "(1) Where it is the only way to achieve efficiency of an industrial activity and rationalization of management; (2) Where it is difficult to procure by normal methods such a large fund as is needed for the investment in equipment and operations; or (3) Where it is necessary for the public interest." Perhaps outdated. In: Yang 1991: 5-11.
[589] Referring to 1981 merger guidelines. Graham 1996: 31.
[590] Graham 1996: 31.
[591] It is not the purpose of the paper to evaluate that. It seems that the independence of the KFTC has been slowly growing, but that new reform efforts, for example in 1993, are still not leading to a fundamental change of the system. Graham 1996: 19, 28.
[592] Graham 1996: 33.

competitiveness of small and medium enterprises.[593] The criteria for allowing industrial reorganization cartels directly refer to an strengthening of Korean enterprises in the world market.[594] Several rationalization cartels were approved in the late 1970s. At least temporarily, the government organized trade associations, in order to facilitate price-stabilization.[595] One effect of the competition law was that the chaebols were blocked from entry into specific sectors of the economy which prevented them to grow bigger. This gave rise to monopolies by medium-size enterprises. All in all, the dominance of the chaebols continued and government industrial policies were implemented through them.[596] Although cartels and other instances of coordinated behavior[597] were prohibited, from 1981 until 1990 there were only 36 antitrust cases concerning this field, of which 41 per cent were price fixing cases.[598] The reason for this low number is partially that government agencies controlled prices.[599] Main focus of antitrust law enforcement are vertical restraints ('unfair business practices').[600] The provisions applying to abuse of dominance mirror those in list of prohibited collusive behavior.[601] It is not the purpose of the paper to dwell more on questions of Korean industrialization. Only two points should be stressed: Korea successfully managed to develop comparibly efficient industries. The growth process took place, even though market structure were concentrated and antitrust enforcement was weak. Perhaps this was inevitable, because Korea is a small country. Thus, the option to maintain concentrated markets structures, that is flexibility in merger enforcement should remain for other developing countries.

4.15 Taiwan

Only a few remarks on it. It is well know that its industrial structure differs from Korea and that Taiwan's small and medium enterprises are successful on world markets. Under these circumstances it might be easier to adopt and enforce a competition law which comes close to the ideals which stand behind it. On the other hand, there is concern in Taiwan that its companies cannot compete with the bigger firms of Korea, Japan and the other industrialized countries.[602] It deserves to be mentioned that mergers are approved by employing a very broad standard: "the benefit of the combination to the overall economy outweighs the disadvantages of its restraining competition".[603] One merger clearly was approved, in order to meet industrial policy goals, namely that of two Taiwanes shipping lines.[604] Concerning cartels, not only export and import cartels are allowed, but also recession

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[593] Korea Monopoly Regulation and Fair Trade Act 1996: Chapt. 4, Art. 19, Para. 2. See for perhaps outdated criteria, to evalute exemptions from the cartel prohibition Yang 1991: 3-9/3-12.
[594] "The supply capacity of a particular industry, due to a change in domestic or overseas economic environment, shall be evidently excessive, or the productivity or competitiveness in the world market, due to underdevelopment in production facility or method, shall be evidently low. Yang 1991: 3-10.
[595] Yang 1991: 1-4/1-5.
[596] Graham 1996: 18-19.
[597] See Graham 1996: 29-30.
[598] Graham 1996: 30-31.
[599] Graham 1996: 31.
[600] Here some sort of 'rule of reason' test applies. Graham 1996: 32. See: Korea Monopoly Regulation and Fair Trade Act 1996, Chap. 5.
[601] Korea Monopoly Regulation and Fair Trade Act 1996, Chap. 2, Art. 3.2.
[602] Graham 1996: 40.
[603] Graham 1996: 40.
[604] Graham 1996: 36.

and rationalization cartels and there is a exemption for small and medium enterprises.[605] Recent information shows that from 1992 until 1999 of the 3547 mergers which took place, some of which involving franchising cases. None was challenged, with the exception of two mergers in the TV cable industry, whose applications were rejected.[606]

5. Export cartels and international cartels

In the last two parts a short overview is given on two issues which are often used as an argument for global competition laws and for the benefits developing countries will receive from it. It is likely, that in negotiations on worldwide competition law a prohibition of export cartels will be suggested and the issue of international cartels will be high on the agenda. For this reason, it makes sense to present some information about what is known about the effects of these two phenomena on developing countries. This is important to know, because it might be the case that the industrialized countries use export cartels as a bargaining coin and that they want something in return for its abolition. Unfortunately, in both fields there are only vague estimates on the effects of these measures on developing countries, therefore it is difficult to tell whether it is worth to pay something in return for abolition or increasing enforcement. Most interesting is that concerning international cartels it is clearly visible that industrialized countries are the main place where these conspiracies take place. Thus, industrialized countries are chosen to do something against it. Moreover, they could do much more to fight international cartels. Thus, before demanding international rules something could be done at home. Lastly, voluntary cooperation between countries is a very promising way to enforce competition rules on an international scale.

Export cartels. Until now export cartels, that means price fixing for exporting purposes, are exempted from anticartel enforcement in most industrialized countries, for example in the EU.[607] In the USA the exception from Sherman Act, Sec. 1, § 1 was reaffirmed in 1982.[608] In two countries changes occured: in the most recent revision of German antitrust law the exception for export cartels is omitted and in Great Britain export cartels are no longer explicitly tolerated.[609] Export cartels follow a simple logic: As long as foreigners are damaged, this is not of domestic concern. Only in case the own export cartels have direct or indirect repercussions on domestic commerce, antitrust authorities can challenge them.[610] Sometimes competition authorities rely on this logic, in order to challenge foreign export cartels, for example the EU has challenged U.S. export cartels.[611] The number

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[605] Graham 1996: 41.
[606] San/Lo 2001: 102.
[607] Bellamy/Child 2001: 217.
[608] This reinforcement was achieved by the Foreign Trade Antitrust Improvements Act 1982. There it is stipulated that only such export cartels can be challenged which have "direct, substantial and reasonably forseeable effect (s)" on the commerce of the United States. See: Stoll 1994: 112; more detailed Schoenbaum 1994: 418-410; see furthermore OECD 1996d: 186-187.
[609] See Evenett et al. 2002: 11. The most recent text of the GWB can be found in BGBl, Teil I, Nr. 59, 1998: p. 2547. See for an internet version: http://www.bundeskartellamt.de.
[610] Bellamy/Child 2001: 217; Burkhardt 1995: 26.
[611] The European Court of Justice maintains that activities of firms which have not production site in Europe can fall under jurisdiction of the EU although there is more to this, for example, there are differences between the U.S. and EU approach in this realm. Here it only matters that for example in 1988 an export cartel of U.S.-wood pulp firms was declared as illegal by the court. Schoenbaum 1994: 419.

of export cartels, which were tolerated in Germany[612], continously decreased. Nevertheless, especially in fields which are important for the industrialization of developing countries, export cartels have been maintained: Machine tools, electronics, and export cartels concerning production inputs, for example chemicals, steel, stone and clay. In 1982 there were 25 export cartels in Germany.[613] Although there was the plan that small and medium firms should use this exemption in the USA export cartels were used mainly by big firms. In 1982 there were 39 registered export cartels, which covered two to three per cent of U.S. exports. Until 1994 this number increased and 100 export cartels were effective.[614] What were the effects of U.S. export cartels? Some authors argue, that export cartels led to sustantive cost reductions for the participating firms. If this is true, the effects are beneficial, even for the affected foreign countries.[615] It can be empirically shown that out of 16 cases in 2 instances prices were raised and monopoly power utilized.[616] This seems to show that export cartels are harmless. Nevertheless, there are doubts if this estimate is representative. Although it seems to be true that in the U.S. export cartels were most significant in the field of relatively unprocessed commodities (lumber, phosphate, sulphur, copper, pencils, buttons, rubber, abrasives, carbon black, animal feed, wheat flour), interesting outliers, such as motion pictures, were not included in this empirical investigation. It is stressed, that 132 of 184 active export associations belong to the group of relatively unprocessed commodities, but no information is given to which group the other 52 cartels belong.[617] Other authors admit that there is considerable insecurity on the effects of export cartels, especially because there might be a lot of illegal cartels which are not notified.[618] Recent investigations have claimed that for example Mexico has been damaged by export cartels, although not details have been given.[619] In proposals for world wide competition a prohibition of export cartels is included. [620] Only the OECD has not joined the consensus yet, it "urges ... reviews by competition authorities ... of [export cartel] exclusions [but] does not regard further action in this area to be a priority in connection with its program for bringing about more effective action against hard core cartels".[621] Thus, the abolition of export cartels has no high priority. This is unacceptable, for there is world wide consensus that export cartels should be abolished. Furthermore, it is in the interest of consumers of industrialized countries that export cartels are abolished because in some cases they make collusion of the cartel

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[612] Immenga/Mestmäcker 1992: 364.

[613] Immenga/Mestmäcker 1992: 364.

[614] Schoenbaum 1994: 419. The number for 1994 is not reported in the article by Dick 1996: 96. He supports that thesis that cartels acounted for a low share of total U.S. exports. For 1976 the FTC estimates 1.5 per cent of the total. Dick 1996: 97.

[615] Dick 1996: 89-91.

[616] The two cases are carbon black and sulphur where U.S. producers had high world market shares. U.S. producers accounted for 80 per cent carbon black production and 50 per cent of crude sulphur production in the 1960s. Dick 1996: 102-103, 107.

[617] Dick 1996: 98.

[618] Schachter/Hellawell 1981: 34. Today authors similarly speak of the decreasing relevance of export cartels but admit that not enough information is available. See Evenett et al. 2002. 11-13.

[619] Evenett et al. 2002. 13. The authors refer to Wise 1999: 67. Contrary to the version of Evenett et al. (2002) who mentions the lack of cooperation with other countries, in this article it is stated that Mexico's competition law does not provide for investigations or impose fines on firms located abroad which makes it difficult to prosecute export cartels or cross-border effects of mergers. See: Wise 1999: 67.

[620] Export cartels are prohibited in the Draft International Antitrust Code. Fikentscher/Immenga 1995: 77. This is stressed again in Fikentscher 1996: 161. In the USA authors agree: Schoenbaum 1994. 420. Other authors generally agree, but demand that an exception for small firms should be provided. Evenett et al. 2002: 26.

[621] Evenett et al. 2002: 13. Siehe OECD 2000: 28.

members more easy on their home markets.[622] Thus, industrialized countries should unilaterally abolish export cartels in the context of the new round.

International cartels. In the OECD (2000) report on 'hard-core'-cartels and their effects in industrialized countries, the central demand of the Competition Law and Policy Committee on policy-makers is that the industrialized countries' competition authorities should intensify their cooperation in order to fight international cartels. In the same vein it is stressed that there are no reasons "why confidential information could not be protected and shared."[623] For example, there have been no problems to protect confidential information in other sensitive areas of international cooperation, for instance in the field of securities, taxes, customs and in the criminal area.[624] Reasons are given to explain why information exchange is a central issue. It is mentioned, for instance, that in some cases it is even impossible for U.S. authorities to prosecute clear cartel violations if other countries do not cooperate.[625] In general, the access to foreign documents is regarded as difficult.[626] In the OECD recommendations on 'hard-core'-cartels, the industrialized countries are encouraged to take the lead in expanding bilateral and multilateral information sharing agreements or other instruments.[627] In the recommendations it is stressed that "relevant evidence may be located in many different countries" and that therefore cooperation is necessary.[628] Developing countries are invited to associate themselves with these principles, in order to create "more co-operative relationships among competition authorities around the world".[629] Brazil followed this invitation.[630] In general, it is not only in the interest of developing countries to receive certain information on cartel activities, but the industrialized countries have an own interest to integrate the developing countries in a network of information sharing, because this is one important way to improve the evidence they have at their disposal.

The positive effects of information exchange can be illustrated by the informal information exchange between USA and Brazil, which has enabled the latter to start investigations concerning the international vitamines cartel and concerning pricing strategies of airlines.[631] In the lysine and vitamines case Mexicos investigates as well.[632]

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[622] "Alternatively, in industries where exporters may previously have been colluding tacitly, the antitrust exemption's benefit may lie in allowing firms to adopt more efficient cartel monitoring and penalty mechanisms that previously had been rejected because of their visibility to antitrust enforcers." Dick 1996: 90.

[623] OECD 2000: 19.

[624] OECD 2000: 37.

[625] "The US authorities believe that the absence of assistance from foreign authorities in sharing or securing evidence has impeded its ability to prosecute international cartels in several instances. In one instance, for example, the absence of assistance meant that the United States was unable to prosecute a major international cartel involving more than $ 1 billion of commerce." See: OECD 2000: 34. In official terminology this is acknowledged for instance in: Recommendation of the Council Concerning Effective Action Against Hard Core Cartels, 25 March 1998 (C/M(98)7/Prov). In: OECD 2000: 58.

[626] ABA Private International Practices 2000: 34.

[627] See: Recommendation of the Council Concerning Effective Action Against Hard Core Cartels, 25 March 1998 (C/M(98)7/Prov). In: OECD 2000: 59-60.

[628] Recommendation of the Council Concerning Effective Action Against Hard Core Cartels, 25 March 1998 (C/M(98)7/Prov). In: OECD 2000: 58.

[629] OECD: Statement on the Association by Non-Members with the OECD Council Recommendations on Effective Action Against Hard Core Cartels. In: http://www.oecd.org.

[630] OECD Brazil 2002: 16.

[631] This information exchange was informal because in the vitamines case there was no court action and therefore no publicly known documents were available, like in the lysine case. In the lysine case Brazil investigates and in the vitamines case U.S. officials gave hints, for example, concerning the way the vitamine cartels operates. In the case of coordinated price increases of

The USA has even answered an official inquiry from Brazil.[633] Informal contacts to U.S. authorities could be used in Chile.[634]

In the 1990s competition authorities from industrialized countries could sucessfully challenge 40 cartels (this means 4 cartels each year, not really much!) with an international dimension. In addition to price fixing and market division, these industries tried to support their cartels with reinforcing entry barriers. They tried to keep their technology secret and strategically expanded their firm networks, for example by establishing joint ventures with competitors from developing countries. Furthermore, mergers, vertical restraints, common sales agencies and patent poolings were used to strengthen the cartel.[635] This, for example, happened in the seamless steel pipes market and in the graphite electrodes case.[636] Sometimes the cartel members persuaded antidumping authorities that their industries were threatened by cheap imports of developing countries, and these authorities helped to maintain the cartels.[637] It is estimated that at least $ 30 billion turnover was affected by these cartels. Typically firms from two or three countries were involved. Some cartels were covering up to four or five countries. In the case of shipping cartels 30 countries were affected. In most cases U.S. and EU firms were involved, but it was not unusual that Japanese and Korean firms participated. On average, these cartels lasted 6 years, some already 20 years, before they were discovered by the competition authorities.[638] Another cartel, the International Heavy Electrical Equipment Cartel, became publicly known: Here again industrialized countries' firms led the cartel, they limited technology transfer to other countries and increased prices (one product was sold 15 to 25 per cent above competitive prices). Sales of 2 billion were involved, between 300 and 500 million additional profits were made due to the cartel, and prices of electricity generally rose because of the cartel.[639] This cartels was not prosecuted by the industrialized countries. Generally it can be said that there are much more cartels and the damage to both

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Brazilian airlines, which were controlled by a computerized information system, the hint came from the U.S. authorities. See OECD Brazil 2002: 31.

[632] Levenstein/Suslow 2001: 8.

[633] OECD Brazil 2002: 35.

[634] OECD Chile 2002: 6.

[635] Evenett et al. 2002: 7-9, 33.

[636] Levenstein/Suslow 2001: 3, 40, 48; Evenett et al. 2002: 8-9. It makes sense include a longer quote from Evenett et al: "Finally, there is case specific evidence of the use of strategic alliances and joint ventures to limit or control entry. On of the most striking exemaples is the Oil Country Tubular Goods (OCTG) market, which are the seamless seel pipes used in the oil and gas industry. In December 1999, the EC convicted four European and four Japanese steel manufacturers of price fixing. No evidence was found indicating that they blocked entry or potential entry into the OCTG markets. However, since the breakup of the cartel, every member of the cartel has joined one of three international alliances. The largest of these, with a 25 per cent market share of world OCTG, is led by Techint. Techint controls Dalmine, the Italian member of the cartel, Tamsa, a Mexican tube producer, and Siderca, an Argentine steel producer. They are known jointly as the DST group. Tamsa is currently under investigation by the Mexican Federal Competition Commission for abuse of monopoly power (in a case that appears unconnected to the EC charges). NKK, another leading producer and former cartel member, has formed an alliance with DST, as has a Canadian producer. Three of the Japanese ex-conspirators have formed an alliance in which they use a single joint sales agency. Mannesmann and Vallourec, the German and French cartel members, have formed a joint venture to which they have transferred all their OCTG production. They also engaged in steel tube joint ventures with Corus (formally British Steel), another former cartel member that has exited the OCTG market." See: Evenett et al. 2002: 8-9.

[637] Even in the case of the citric acid cartel where antidumping duties could be avoided by US authorities, and an agreement was established, obviously with Chinese authorities. It is concluded, that even if no antidumping duties were placed on China, the U.S. manufacturers had some power to control imports from China because after the dissolution of the cartel, imports from China rose dramatically. In February 2000 another case was dismissed, because no material injury could be found. See: Levenstein/Suslow 2001: 29, 31.

[638] Also the information in the sentences above without footnote stems from Evenett et al. 2002: 5-7

[639] See: Communication by European Community and Its Member States. WT/WGTCP/W/62, March 3, 1998. pp. 4-5.

industrialized and developing countries is probably higher. In most cases the firms have their headquarters in industrialized countries. It is pointed out that therefore they can best be prosecuted there. For this reason, authors conclude that "*at present* reforms to the 'investigative technology' probably need only focus on cooperation between the industrialized nations."[640] And it is suggested that cooperation should be strengthend between industrialized countries, for instance through a plurilateral agreement (not in the WTO!) between industrialized nations, which "only refers to modalities of inter-agency cooperation".[641] Moreover, competition authorities from developing countries should get open access to such a group (countries which reached a pre-specified goal of international anti-cartel cooperation).[642] This thesis clearly supports the OECD approach. Furthermore, it is demanded that the ability of industrialized countries to enforce anti-cartel rules must be strengthened. For example the anti-cartel enforcement in the EU is considered as weak.[643] Here the USA is seen at the forefront of anticartel policies because of its corporate leniency programme, which has led to a dramatic increase in prosecution.[644] The EU is said to have followed suit but it does not ensure automatic amnesty for the first firm which reports cartel practices. In the EU private premises of business executives cannot be searched (but the office) and community law provides only for civil sanctions on the firms (but the fines can be high).[645]

On the effects of these cartels on developing countries the following information is available[646]: They imported $ 81.1 billion of goods which were affected by cartels, that is 6.7 per cent of total imports and 1.2 per cent of their GDP. For the poorest countries the share in total imports rises slightly to 8.8 per cent.[647] Moreover, in cases studies of five cartels (bromine, citric acid, graphite electrodes, steel tubes, vitamins) there is evidence that the firms involved, used other measures, to restrict entry of other producers, among them producers from developing countries.[648] Often they continued these competition-limiting practices even after the firms were prosecuted: It happened in the bromine case and in the case of steel tubes that firms entered into strategic alliances and joint ventures with eachother and also with firms from developing countries.[649] The effects of the cartels on developing countries are generally negative and the entry of producers from developing countries got easier after the cartel broke down, although in some cases the cartel provided a price umbrella for developing country producers.[650] The assessment of the damage was not possible in most of the cases. In two cases tentative estimates of the damage to developing countries are given: Citric acid $ 30 million[651], approximately $ 28 million in the steel tubes case.[652] Competition authorities from industrialized countries ignore effects of cartels on developing countries in their

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[640] Evenett et al. 2002: 22.
[641] Evenett et al. 2002: 23.
[642] Evenett et al. 2002: 24.
[643] Evenett et al. 2002: 22.
[644] Evenett et al. 2002: 18.
[645] Evenett et al. 2002: 18-19, 22.
[646] Levenstein/Suslow 2001: 2.
[647] Levenstein/Suslow 2001: 2.
[648] See for similar arguments the text above. For instance, in the steel beam and graphic electrodes cases information about technology was kept secret and there was no other option for developing country producers to engage in joint ventures. These joint ventures were then integrated in the international cartel network in order to ensure that no independent competitors emerge. Levenstein/Suslow 2001: 3, 40, 48; Evenett et al. 2002: 8-9.
[649] Levenstein/Suslow 2001: 3-5.
[650] Levenstein/Suslow 2001: 60-61.
[651] Levenstein/Suslow 2001: 28.
[652] Levenstein/Suslow 2001: 47.

investigations. Often is is mentioned "that the cartel had effects 'in the U.S. and elsewhere' or in 'certain third markets'" but these additional effects are not specified in the decision.[653] Interestingly, developing countries can file legal suits in the USA, after a firm has been pled guilty of price-fixing, in order to receive compensation.[654]

6. Conclusion: why broad-based worldwide competition rules are not needed

Most authors writing on possible international competition policy principles say one or two sentences about the globalization of business activities, consider this as a fact, and then turn to a discussion of principles or even detailed rules for the worldwide harmonization of competion rules.[655] This ignores the fact that national competition policy enforcement without international rules may yield to equally beneficial outcomes. Generally, liberal authors regard competition policies as welfare enhancing and they conclude that worldwide competition rules are an extension of welfare increasing national competition policies. Therefore, there would be no qualitative change if all countries in the world would adhere to the same principles of competition law. The fact that national policies could be unduely restrained by international rules is not regarded as an issue worth talking about, simply because competition is expected to lead to optimal outcomes.[656] Furthermore, it is implied that developing countries use their competition law to unfairly protect own firms. This simplified approach is not shared in this paper.

Summing up the argument, firstly, it does not seem plausible to ignore the issue of structural irreversibilities, artificially produced advantages and market power in this discussion. It is, at least in a considerable number of industry sectors, doubtful, whether firms from developing countries can compete vis-à-vis big international firms on a level playing field, simply because of the size of the latter. Although multinational corporations do not dominate each and every sector of the world economy, they shape substantial parts of it and posses certain advantages. These advantages partially result from government support, for example R&D subsidies. Moreover, big international firms are strengthened both in the U.S. and EU by a lenient merger enforcement, a generally permissive vertical restraints regime, and a tolerant attitude towards R&D cooperation and other phenomena of firm-networking. In addition, government-led reorganizations of industry played an important part in creating big firms in industrialized countries. Therefore, it is misleading to present competition policies of industrialized countries as neutral or liberal. A different, equally justifiable and efficiency enhancing competition policy approach to these issues is possible. Just now the biggest merger wave in history is taking place. From the perspective of developing countries this amounts to structural irreversibilities which have the effect to hinder market access because firms from industrialized countries are strengthened. In some cases, for example, in the automobile industry the USA and the EU countries have engaged in industrial policy by non-enforcement of competition laws. Similarly important is the fact that industrialized countries did not follow a clearcut model of competition policy. Countries follow a diversity of approaches. This could be, for example, shown in the cases of Portugal, Belgium,

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[653] Levenstein/Suslow 2001: 61.
[654] Levenstein/Suslow 2001: 4, 36.
[655] Waverman et al. 1997: 1-2; Fox/Ordover 1997: 407-411; Immenga 1995: 1-4; EU Experts Report 1995: 6.
[656] Admittedly, there is a liberal argument against harmonization which stresses the competition between regulatory systems. Hayek regarded system competition as welfare enhancing, despite the fact that it can easily lead to beggar-their-neighbour processes. Therefore this view is not shared here. Without critique, Hayek is mentioned in Kleinert/Klodt 2002: 75.

France, Japan, Canada, South Korea, the EU and the USA. Canada's merger law, for example, has the aim of export promotion and import substitution. It goes without saying that developing countries should be allowed similar flexibilities, as long as the industrialized countries do not modify their policies and the long-term effects of these policies on industrial structures persist. These facts cannot be ignored in negotiations on broad-based global competition rules.

Secondly, the developmental impact of worldwide competition rules is systematically ignored and there is no realistic assessment of the still central role of national firms in national welfare creation and the useful role industrial policy plays. Without any doubt, worldwide principles encompassing non-discrimination, guidelines on mergers, and other aspects of competition policy will constrain options of developing countries for conducting industrial policies. For example, if there are import barriers, a temporary monopoly will not be allowed by worldwide merger guidelines and it will get difficult to justify tight oligopolies if markets are small, firms are weak and economies of scale cannot be achieved. There are other situations in which special and differential treatment for domestic firms makes sense. To deprive developing countries of these flexibilities cannot be justified, because to a large extent the growth prospects of developing countries in the new millenium depend on the success of a few industrial targeting policies. Moreover, the damage which is allegedly done by ideosyncratic competition policies and other private protection policies in developing countries seems to be exaggerated. There has been no systematic research on these issues and the evidence on private market access barriers presented in U.S. publications and in WTO's working group is episodic and incidental. The simple fact that imports rise after liberalization shows that private market access barriers are not widespread. On the contrary, because it is in their own interest, more and more developing countries implement competition policies and this had already beneficial effects on foreign firms. In general, firms from industrialized countries benefit from industrial policies in developing countries. Futhermore, there is no generally insecure business environment in developing countries. The few exceptions can be solved by diplomatic means and other treaty instruments, for example bilateral investment treaties or cooperation agreements in the field of competition policy.

Thirdly, in the part on international cartels some fundamental lessons could be learned. Cooperation and information exchange is of central importance to fight international cartels. Competition policy enforcement must be strengthened and must be better financed all over the world. First and foremost this should be done in the industrialized countries because most anticompetitive practives are planned and conducted there, having repercussions all over the world. Especially the EU should change aspects of its law in this respect. Instead of doing so, it devotes its ressources to demand worldwide competition rules.

Lastly, there are other voices, for example experts who point out the benefits of an international antitrust authority.[657] Certainly, some decisions of an international antitrust authority would be benefical for developing countries but it is by no means clear how far this will go because one must realistically expect that industrialized countries will shape the largest part of the rules. This considerable weakens the case for international rules in this respect. Moverover, there are reasons which speak against such an authority, which have to be carefully

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[657] Scherer 1994: 91-96; Fikentscher 1994; Fikentscher/Immenga 1995.

assessed. It would be undemocratic and it would make antitrust unflexible for years to come.[658] Anyhow, it is not realistic to expect the establishment of such an institution in the near future, so it is misleading to compare the benefits from such an institution with the benefits which are expected from cartel prohibitions, non-discrimination and guidelines on mergers in the WTO.

7. Comments on a minimalistic approach to global competition rules

The most prominent example for minimum rules[659] is the prohibition of cartelization. One might expect that this is unproblematic because there are sound economic reasons which speak for it.[660] However, a prohibition of 'hard-core'-cartels on international level implies the difficulty that it is not clear what is meant by 'hard-core'-cartels and industrialized countries might have the interest to deprive developing countries from certain exemptions. Furthermore, it is likely that a prohibition of 'hard-core'-cartels which is subject to dispute settlement in the WTO will deter countries to exchange information on antitrust issues. This will have counterproductive effects and might even weaken anticartel enforcement on global scale. Comments on possible market access rules which relate to the problem of vertical restraints are given in other parts of the text and are not reproduced here.[661]

Firstly, developing countries need broad exemptions, for example concerning specialization and rationalization cartels which they should use according to their own developmental needs. Indeed, developing countries need a crisis cartel exemption more urgently than industrialized countries because they often face problems of demand fluctuation and overcapacities. For instance, in periods of drought, consumer demand usually collapses. In such a situation crisis cartels are useful to prevent a mutually disadvantageous intensification of competition. It is shown in the text above that industrialized countries, for example, Japan and Germany, regularly use these exemptions. The problem is that industrialized countries will oppose such exemptions. Because developing countries have no strong negotiation position in the WTO, there is the danger that their options in this respect will be unreasonably constrained. This problem can be illustrated by the definition of 'hard-core'-cartels by the OECD (2000), where it is already added that such exceptions are subject to a peer review process:

"*a)* a “hard core cartel” is an anticompetitive agreement, anticompetitive concerted practice, or anticompetitive arrangement by competitors to fix prices, make rigged bids (collusive tenders), establish output restrictions or quotas, or share or divide markets by allocating customers, suppliers, territories, or lines of commerce;

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[658] Another points of critique is mentioned: loss of efficiency resulting from a competition among different systems. Meesen 2000: 10-16. See the comment in footnote 634.

[659] See for a discussion of minimum approaches to international antitrust rules, where a cartel prohibition is of central importance: Hoekman 1997.

[660] Admittedly, there are sound economic reasons which speak for a strengthening enforcement against 'hard-core'-cartels. In general, cartels prevent productivity growth and welfare increases: Cartels damage consumers and other producers by higher prices. Large cartelized firms benefit most because they usually have the most modern equipment and their profits are enhanced most by the cartel arrangements. When the cartel operates the incentive to continue to modernize their equipment is not longer there. Clearly inefficient producers are protected by the price umbrella of the cartel. In sum, growth of productivity is prevented. Moverover, even without cartels, firms have certain options not to engage in cut-throat competition. Therefore it seems not to be dangerous to progressively phase-in anti-cartel policies in an economy, even in developing countries. These insights may have led to a spread of competition law in the countries of the world, all of which prohibit cartelization.

[661] See part 2 and part 4.3 of the text.

b) the hard core cartel category does not include agreements, concerted practices, or arrangements that *i)* are reasonably related to the lawful realisation of cost-reducing or output-enhancing efficiencies, *ii)* are excluded directly or indirectly from the coverage of a Member country's own laws, or *iii)* are authorised in accordance with those laws. However, all exclusions and authorisations of what would otherwise be hard core cartels should be transparent and should be reviewed periodically to assess whether they are both necessary and no broader than necessary to achieve their over-riding policy objectives. After the issuance of this Recommendation, Members should provide the Organisation annual notice of any new or extended exclusion or category of authorisation."[662]

Thus, although a world-wide prohibition of 'hard-core' cartels, without touching cartel exemptions (see above, f.e. crisis cartels), is less problematic than guidelines on mergers and other aspects of competition policy, an important arguments against negotiations on this subject is that industrialized countries will try to constrain leeways concerning cartel exemptions.

Secondly, a cartel-prohibition will probably lead to a halt concerning information exchange between competition authorities. This will be the result from using the WTO dispute settlement mechanism because it works through the withdrawal of concessions in a case of non-compliance with the rules. A lot speaks against such a mandatory approach because the threat of withdrawal of concession could work in a counterproductive manner. This is why: competition policy authorities will fear that their behavoir might lead to a complaint in the DSB, therefore they will share information only reluctantly, in order to protect their own interests. For example, if they are insecure whether to prosecute a cartel, they usually might ask other authorities if they can help out with information. It could be shown in the text above[663], that such informal information exchange has been very important recently. If the WTO gets involved, it becomes riskier to share information because then other competition authorities already know part of the story and can later blame them for not enforcing competition laws. Moreover, it is not in the interest of countries to share information about sectors in which cartelization is practiced because those sectors probably try this again in future and investigators from abroad will start to systematically collect information on these sectors to prepare for a WTO dispute. I do not want to dramatize but this scenario is very likely and would be a serious setback for a global competition culture.

To conclude, it is not only my impression that a robust agreement on modalities for information exchange will be the best starting point to spread a global competition culture. It will enhance the efficiency of antitrust policies and help to establish mutual trust between competition authorities. Furthermore, some flexibility for national policies will remain. Thus, the best of two worlds can be etablished. What are they waiting for? OECD recommendations suggest a plurilateral on information exchange agreement among countries. [664] Preparations for simpler information exchange are already in place. In the context of such an agreement, industrialized countries should

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[662] OECD 2000: 58-59.
[663] In part 5 of the text.
[664] See: Recommendation of the Council Concerning Effective Action Against Hard Core Cartels, 25 March 1998 (C/M(98)7/Prov). In: OECD 2000: 59-60.

allow developing countries, on condition they respect confidentiality, to benefit from information exchange on a regular basis.

The USA might support such an approach. They propose a mixure of measures: extraterritorial enforcement, bilateral cooperation treaties, involving the principle of positive comity which is regarded as "sufficient to solve the most pressing problems". [665] Towards multilateral initivatives they are more reluctant. Of course, extraterritorial enforcement is not acceptable if the interests of the affected parties are not taken into account. And it is obvious that in the bilateral relations power plays a role. Nevertheless concerning information exchange bilateral arrangements might not be a worst case option. The WTO was, at least two years ago, not considered as appropriate forum for dealing with competition policy issues.[666] NAFTA Chapter 15 on competition is not subject to dispute settlement and generally stipulates non-discrimatory behavior of public firms and state monopolies. Monopolies are accepted and can be newly created, for example as public enterprise.[667] In the negotiations of the Free Trade Area of the Americas dispute settlement on competition policy issues seems to remain non-binding too, a right to formally petition a country to conduct investigation is included, and the other provisions are relatively weak.[668]

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[665] Scherer 1998: 17; Executive Summary: Global Competition Initiative: ICPAC 2000.
[666] Executive Summary: The Role of International Organizations: ICPAC 2000.
[667] Senti 1996: 89-91.
[668] FTAA Draft Agreement Chapter on Competition Law 2001: 9.2-9.5, 9.9.

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9. Tables

Table 1: Share of (gross) output in selected host countries accounted for by foreign affiliates.

Part I Industrialized Countries

	Australia 1983	Belgium 1975	Canada 1986 (1)	France 1982	Germany 1982 (2)	Italy 1985 (2)	Japan 1986	Netherlands 1987 (2)	Portugal 1978	Spain 1977 (2)	UK 1988	US 1987 (2)
Primary												
Agriculture	na	3,1	nsa	na	0,5	nsa	nsa	na	1,2	17,0	na	1,0
Mining and quarrying	33,6	nsa	40,5	na	10,1	2,2	nsa	30,0	31,0	48,0	na	8,4
Petroleum	na	77,7	nsa	51,4	25,0	1,7	nsa	na			na	na
Secondary	21,6	44,0	49,0	25,3 (2)	15,8	na	2,2	14,0	19,6	46,6	20,7	7,3
Food and drink products	25,6	22,5	29,4	nsa	17,7	12,8	0,5	18,0	15,8	52,0	14,6	8,8
Chemical and allied products	65,7	55,6	75,8	40,0	21,8	62,4	3,4	nsa	31,0	77,0	33,0	23,5
Metals	30,7	16,1	17,5	15,0	30,4	5,6	0,2	8,0	22,6	28,0	8,5	6,7
Mechanical engineering	32,9	57,7	50,2	nsa	16,3	12,6	2,2	nsa	14,1	45,0	22,7	5,8
Electrical and electronic goods	43,3	87,3	60,6	34,0	18,8	44,4	3,0	23,0	67,3	82,0	21,2	9,3
Motor vehicles	61,9	54,7	87,2	14,9	18,9	9,2	0,4	nsa	51,3	99,0	69,2	6,5
Textiles, clothing and leather goods	22,3	11,3	50,0 (5)	7,2	4,8	1,9	0,1	9,0	9,3	na	4,2	3,2
Paper products	15,6	30,4	25,9	24,1	7,6	4,0	0,3	19,0	25,4	na	4,2	3,2
Rubber products	41,1	59,8	88,2	24,8	24,4	16,6	nsa	nsa	46,2	63,0	22,2	6,6
Coal and petroleum products	59,0	nsa	66,7	nsa	61,0	nsa	29,0	nsa	26,0	12,0	nsa	39,5
Tertiary	na	na	na	na	na	na	na	4,0	na	na	na	na
Construction			5,7		1,8		nsa	2,0	9,8	22,0		0,8
Transport and communication			na		6,3		nsa	1,0	4,4	39,0		2,6
Trade and distribution			24,6 (6)		3,5		0,6	3,0	12,5	33,0		3,6
Real estate			na		nsa		nsa	nsa	nsa	nsa		2,3
Finance and insurance			na		6,3		nsa	8,0	8,1	93,0		4,4
Other services			na		2,6		0,3	13,0	2,1	nsa		1,2
Total	na	na	33,0	na	na	11,8	na	na	na	46,6	na	na

Part II Developing Countries

	Brazil 1987	Hong Kong 1987	Mexico (2) 1985	Morocco 1987	Singapore 1975 (1)	Taiwan 1981	Thailand 1986
Primary							74,8
Agriculture	22,8	na	3,8	na	neg	na	6,5
Mining and quarrying	2,7	na	0,1	na		na	93.6
Petroleum	34,0	na	6,5	na		na	21,5
Secondary	34,2	17,3	20,2	14,0 (7)	62,9 (8)	16,7 (2)	43,2
Food and drink products	17,7	28,9	6,5	9,9	67,3	6,8	22,0
Chemical and allied products	38,9 (4)	50,8	44,7	10,1	97,2	28,8	72,0
Metals	34,1	12,9	10,6	3,5	96,7	4,4	60,8
Mechanical engineering	46,4	8,2	32,1	20,8		24,5	80,3
Electrical and electronic goods	50,9	48,2	45,6	27,7	88,7	48,6	89,4
Motor vehicles	80,6	nsa	96,4	25,5		nsa	59,8
Textiles, clothing and leather goods	11,7	6,3	nsa	14,1	98,0 (4)	nsa	nsa
Paper products	19,4	12,4	nsa	22,4	45,4	6,5	nsa
Rubber products	44,7	8,8	nsa	12,1	70,5	7,9	30,5
Coal and petroleum products	nsa	nsa	nsa	22,0	100,0	nsa	77,7
Tertiary	8,3	na	na	na	18,1 (8)	na	30,3
Construction	5,1		nsa				30,4
Transport and communication	2,0		nsa		10,1		52,4
Trade and distribution	11,2		2,3		25,5		37,6
Real estate	9,2		nsa		17,9 (8)		4,8
Finance and insurance	8,5		nsa		14,5		10,8
Other services	9,6		3,2				37,5
Total	17,1		10,9		na		39,3

na not available
nsa not seperately available

(1) Share of assets
(2) Share of employment
(3) Food only
(4) Chemicals only
(5) Textiles only
(6) Wholesale trade only
(7) Share of assets in 1982
(8) Excluding construction
(9) Including business services

Aus: Dunning 1993: 38-39.

Table 2: Value of U.S. Merger Activity. In: Antitrust Division Annual Report 1999: 11.

Year	Value in Billions
1990	186
1991	137
1992	150
1993	239
1994	357
1995	502
1996	659
1997	959
1998	1,613
1999	1,790

Table 3: Anti-dumping cases potentially involving monopolising behavior. In: OECD 1996g: 17.

Country (period studied)	Total cases filed	Anti-dumping measures not imposed	Anti-dumping measures imposed	
			Total	Cases potentially involving monopolizing dumping
United States (1979-1989)	451	169	282	35 (d)
Canada (1980-1991)	155	63	92	0 (c)
Australia (1/9/88-31/12/91) (a)	40	20	20	5 (b)
European Union (1980-1989)	385	115	270	23 (e)
Total	1031	367	664	63

(a) The period studied is limited to September 1988 to end 1991, due to substantial change in the anti-dumping regime at the beginning of that period.

(b) The number of cases in which imports under simultaneous investigation originated from fewer than three countries and import penetration exceeded 15 per cent.

(c) The share of all imports of a particular product from a given challenged exporting country (as a percentage of domestic consumption) averaged across all products, was only 12.4 per cent. A multiplicity of international suppliers was found for most products subject to anti-dumping measures.

(d) The number of cases where imports under investigation originated from fewer than five countries, import penetration exceeded 20 per cent and the ratio of expenditure on long-lived machines and equipment (relative to total sales) was greater than th 4-digit SIC industry average of 0.25. (The latter is a measure of entry or exit barriers.) The number of cases would be 28 if a three-country screen rather a five-country screen had been applied.

(e) Cases in which (1) import penetration was projected to be greater than 40 per cent in the first year after the decision wether to take anti-dumping measures; and (2) involving three of fewer countries; and (3) seven or fewer firms involved in the anti-dumping proceeding; and either (4a) foreign firms had substantial (6.1 per cent or more) shares of the domestic market; or (4b) domestic concentration was high.

Table 4: Numbers employed, value added and gross fixed capital formation (CFCF) in European public enterprises, 1991. In: Parker 1998: 11.

	Share of non-agricultural employment (%)	Value added as a % of total manufacturing and service industy (a current prices)	Share in non-agricultural CFCF (%)
Belgium	9,8	7,5	8,4
Denmark	8,2	8,7	17,6
France	13,4	15,1	24,2 (a)
Greece	14,7	17	30
Ireland	8,7	11,5	16,9
Italy	13,5	20	23,5
Luxembourg	3,0	5,2 (b)	4,6
Netherlands	5,1	8,0	9,2
Portugal	10,6	21,5	30,0
Spain	6,0	7,5 to 8,5	12,5 to 13
UK	4,6	4,0	5,0

a Total CFCF
b Percentage share in non-agricultural turnover

Table 5: Examples of state-owned multinationals. In: Dunning 1993: 49.

State-owned MNEs			
Enterprise	Sectors of activity	Home country	Degree of internationalization (1)
Aerospatiale	Aerospace	France	78.2
Agip (ENI)	Petroleum products	Italy	na
Assi	Paper products	Sweden	79.9
Alcatel Alsthom	Electronics	France	na
CEA Industries	Nuclear power	France	na
DSM	Chemicals, fertilizers, plastics	Netherlands	14.1
Elf-Aquitaine	Petroleum, chemicals	France	29.0
Embraer	Aircraft	Brazil	na
INI	Motor vehicles	Spain	na
Keppel Shipyard	Shipbuilding	Singapore	na
Norsk Hydro	Petroleum, chemicals	Norway	94.6
IRI	Metals	Italy	na
Petrobras	Petroleum	Brazil	na
Renault	Motor vehicles	France	51.3
Rhone-Poulenc	Chemicals	France	54.7
Salzgitter	Iron and steel products	Germany	79.2
Thomson	Electrical and electronic products	France	61.2
Voest Alpine	Metals	Austria	35.7
YPF	Petroleum products	Argentina	na
Kemira Oy	Chemicals	Finland	50.0
Neste Oy	Petroleum, chemicals	Finland	70.1
State-owned MNEs in the process of multinationalization			
British Coal	Mining	UK	1.5
Bharat Heavy Electric	Electrical engineering	India	na
Pemex	Petroleum products	Mexico	na
Matra	Aerospace	France	na
Siderbras	Iron and steel products	Brazil	na
Japan Tobacco	Tobacco products	Japan	na
Valmet	Industrial and farm equipment	Finland	na
Petrleos de Venezuela	Petroleum products	Venezuela	na
Bull	Computer company	France	na
Enso-Gutzeit	Wood products	Finland	na
Sino-chem	Chemical products	China	na (2)

(1) As defined as proportion of world-wide assets or output accounted for by foreign affiliates.
(2) But is known to have 66 foreign subsidiaries employing 5000 people (Transnationals, 1992).

Table 6: Factors Stimulating Innovation. In: Mytelka 1999: 21.

Competitive pressures emanating from	Demand pull or supply push generated by
Characteristics of the industrial structure	Production problems within the firm
Emulation of practices of others	Requirements of suppliers or clients
Imports	Developments in other sectors
Government policies	Government policies

Table 7: Scale Ecomomies for Plants. Modified, food products excluded, because there scale economies do not lead to substantial concentration. In: Pratten 1988: 76-80.

NACE 3 Number	Industry	MES Scale	Percentage increase in costs at less than MES (3)		Output measure	Output circa 1983 (1)		MES as % of output		Size of the industry: percentage of employment in UK manufacturing industry
			total unit costs	value added per unit		UK	EC	UK	EC	
14	Oil refineries	200,000 barrels a day	4(1/3)		m tons a year	75	406	14	2.6	0.3
221	Integrated steel plants	4 m tons a year	11(1/3)		m tons a year	15	110	27	3.6	(0.8)
	- ditto	9.6-12 m tons a year	> 10 (1/3)					72	9.8	
	-ditto for flat rolled products	10 m tons a year	-					67	9	
	Mini steelworks	0.7-0.8 m tons a year	> 10 (1/3)					5	0.7	
2245	Rolled aluminium semi manufactures	200,000 tons a year	-		th tons a year	175		114	(15)	(0.1)
223	Barbed wire fencing	0.76 m pounds sales per year in 1986	-					(10)	(2)	(0.04)
	Wire netting	4 m pounds sales per year	-					(20)	(4)	
241	Bricks - non flettons	25 m bricks a year (at least)	25 (1/2)	30 (1/2)	th m a year	3.4	14	1	0.2	0.4
242	Cement	1.3 m tons a year	26 (1/3)		m tons a year	13	133	10	1.0	0.2
	- ditto	-ditto	> 10 (1/3)							
243	Plasterboard	18-20 sq mtrs a year	-		m sq mtrs	121		16	(3)	(0.1)
247	Glass bottles	133,000 tons a year	11 (1/3)					(5)	(0.5)	(0.1)
248	Pottery	small relative to UK capacity						(2)	(0.2)	1.1
251	Petrochemicals	500,000	19 (1/3)		m tons all	2.2	18	23 (2)	2.8 (2)	(0.2)

		tons a year			plastics a year					
	Sulphuric acid	1 m tons a year	1 (1/2)	19		2.6	18	38	5.6	(0.01)
	- ditto	0.35 m tons a year	5-10 (1/3)	(1/2)	m tons a year			13	2.0	
251	Titanium Oxides	130,000 tons a year	8-16 (1/2)		th tons a year	206	262	63	50	(0.01)
	Synthetic rubber	60.000 tons a year	15 (1/2)		m tons a year	0.25	1.7	24	3.5	(0.01)
255	Paint	10 m galls. a year	4.4 (1/3)		m tons	0.7	3.0	7	2	0.6
256	Fertilizers	300.000-350.000 tons a year	-		m tons a year	1.4	8	23	4.1	(0.1)
258	Detergents	70,000 tons a year	2 1/2 (1/2)	20 1/2				207	(3)	
	Soap	10,000 tons a year	-					(4)	(1)	(0.2)
26	Synthetic fibres									
	Nylon	50 m lbs. a year	12 (1/2)		th tons of the synthetic fibre	530	1,901	4 (2)	1 (2)	0.2
	Acrylic	42.4 m lbs. a year	9.5 (1/2)					4	1 (2)	
	Polyester	40 m lbs. a year	10 (1/2)		"			3 (2)	1 (2)	
	- ditto	100.000 tons a year	2.6 (1/2)		"			18	5 (2)	
	Cellulosic fibres	70 m lbs a year	5 (1/2)		th tons a year	25	188	125	16	
	Rayon staple	125 m lbs a year	5 (1/2)		"	128	246	40	23	
311	Foundries									
	Cylinder blocks	50,000 tons a year	10 (1/2)	15 (1/2)	th tons of all iron castings		1,435	3	0.3	1.0
	Small engineering castings	10,000 tons a year	5 (1/2)	10 (1/2)				0.7	0.1	
322	Machine tools	Small relative to UK capacity						(1)	(0.2)	1.2
326	Ball bearings	800 employee	8-10 (1/3)					(20)	(2)	(0.15)
342	Large turbo generators	6,000 MW	15 (1/2)	20				(50)	(10)	(0.1)
	Electric motors	60 % of UK market 1970		(1/2)				(60)	(6)	(0.2)
343	Auto batteries	1m units a year	4.6 (1/3)		m units a year	4.5	25	(22)	(4)	(>0.1)
344	Public switches	4-500,000 lines a year	5-10 (1/3)		m units a year	(2.0)		(25)	(4)	(0.4)
	-ditto	500,000 lines a year	4.5 (1/2)							
	TV sets	1.1-1.2 m units a year	15 (1/3)			2.9	12.4	(40)	(9)	(0.2)
	Videos	0.8-1 m units a	-						(20)	(<0.1)

		year								
346	Refrigerator factory	1.0 - 1.2 m units a year	6.5 (1/3)		m units a year	1.3	9.7	(85)	11	0.3
	Washing machine factory	800.000 units a year	7.5 (1/3)			1.4	8.0	57	10	0.3
361	Marine diesels	100,000 hp a year	8 (1/2)	10 (1/2)				(30)	(5)	(<0.1)
363	Bicycles	100,000 units per year	-		m units a year	(1.0)	10.3	(10)	1	(0.1)
427	Beer	4.5 m barrels a year	5 (1/3)		m barrels a year	37	143	12	3	0.7
		3 m "	7 (1/2)							
		2-3 m	5-10 (1/3)							
429	Cigarettes	36 bill cigarettes a year	2.2 (1/3)		bill a year	149	566	24	6	0.5
431	Wool industry	Small relative to UK capacity	-					(1)	(less than 1)	0.8
432	Cotton spinning	Small relative to UK capacity	-					(1)	(less than 1)	0.6
	Integrated cotton spinning	1.5 % of US capacity c 1975	-					(5)	(1)	0.6
	Weaving cotton	300 looms	-		th looms installed	18.7	142	2	0.2	0.6
438	Tufted carpets	64,000 sq. ft. a week	10 (1/2)		m sq. mtrs	114		0.3	(0.04)	(0.2)
451	Footwear factory	4,000 pairs a week	1.5 (1/3)		m pairs a year	58		0.3	(0.04)	1.0
471	Linerboard	850 tons	8 (1/2)		total output of paper excl. newsprint m tons			10 (2)	1.3 (2)	0.6
	Kraft paper	986 tons	13 (1/2)			3.1	23.2	11 (2)	1.4 (2)	0.6
	Printing paper	567 tons	9 (1/2)					7 (2)	0.9 (2)	0.6
472	Disposable diapers	3 % of US capacity	-					(10)	(2)	(>0.1)
481	Tyres	16,500 tyres a day	5 (1/2)		m a year	24	136	17	3	(0.4)

(1) The figures in brackets are guess estimates. In most cases they provide reasonable orders of magnitude.
(2) For many trades, and particularly those referred to footnote (2) the MES sould be related to a more narrowly defined output. This would have the effect of increasing the MES as a percentage of output.
(3) The figure shown in brackets indicates the proportion of the MES to which the percentage refers.

Table 8: Evolution of 3-firm concentration ratios, 1962-1990. Aus: De Jong 1993: 10-11.

	Industry	Number of firms (a)	1962	1967	1972	1977	1982	1989	1990	Industry growth
1	Aerospace	15	42,7	40,7	35,5	39,4	37,3	36,6	41,1	strong
2	Electronics	20	41,8	38,2	35,2	35,4	28,8	32,0	30,2	very strong
3	Pharmaceuticals	20	48,6	35,2	30,2	32,8	31,8	27,5	30,9	very strong
4	Chemicals	20	32,7	29,1	24,8	26,4	27,7	31,8	33,8	slow since 70s
5	Motorvehicles (incl. components)	20	66,7	63,2	56,2	50,5	41,3	43,2	40,3	very slow in 80s
6	Industrial & farm equipment	20	34,7	32,2	32,1	29,6	24,0	32,7	34,0	stagnant, decline
7	Metalproducts & manufacturing	20	31,7	29,1	27,1	27,3	31,4	35,4	35,5	average growth
8	Paper & wood products	19	29,5	27,1	26,6	28,6	26,3	25,8	30,0	below average
9	Food	20	38,8	36,3	34,6	34,9	35,1	37,8	41,7	below average since 70s
10	Drinks	9	50,0	47,3	52,0	52,8	53,2	51,6	54,4	below average since 70s
11	Tobacco	9	58,2	57,0	56.2	59,8	68,9	74,0	75,0	decline, stagnant

(a) Percentage shares do not refer to worldwide output or some other more encompassing criterion but it relates to the share the 3 largest firms have within a group of bigger firms, whose number is mentioned in this column.

Table 9: Largest firm concentration ratios (1) by main industrial and service sectors (1962-1990). In: Dunning 1993: 45.

Industrial sectors	1962	1977	1982	1990
Food	38.8	34.9	35.1	31.5
Drink (2)	50.0	52.8	53.2	54.4
Tobacco (2)	58.2	59.8	68.9	61.4
Textiles, apparel and leather goods	29.0	26.7	24.8	na
Paper and wood products (3)	29.5	28.6	26.3	29.9
Industrial and agricultural chemicals	32.7	26.4	27.7	33.8
Pharmaceuticals and consumer chemicals	48.6	32.8	31.8	30.9
Petroleum	47.7	38.8	35.9	38.1
Rubber (4)	52.3	56.0	56.1	54.3
Building materials (5)	44.6	52.6	50.1	51.1
Metal manufacturing and products (6)	31.7	27.3	31.4	28.7
Electronics and electrical appliances	41.8	35.4	28.8	30.1
Shipbuilding, railroad and transportation equipment (7)	74.0	58.8	67.2	na
Motor vehicles	66.7	50.5	41.3	38.6
Aerospace (8)	42.7	39.4	37.3	42.1
Office equipment (including computers) (4)	65.4	68.3	67.7	67.0
Industrial and farm equipment	34.7	29.6	24.0	34.0

(1) Except where otherweise specified, the sales of the three largest firms in the world as percentage of the sales of the 20 largest firms in the world.
(2) Sales of the three largest firms in the world as a percentage of the nine largest firms in the world.
(3) Sales of the three largest firms in the world as a percentage of the 19 largest firms in the world.
(4) Sales of the three largest firms in the world as percentage of the eight largest firms in the world.
(5) Sales of the three largest firms in the world as a percentage of the ten largest firms in the world.
(6) Sales of the three largest firms in the world as a percentage of the 18 largest firms in the world.
(7) Sales of the three largest firms in the world as a percentage of the seven largest firms in the world.
(8) Sales of the three largest firms in the world as percentage of the 15 largest firms in the world.

Service sectors	1962	1976	1983	1988
Banking	na	na	na	36.3
Finance and securities	na	51.6 (4)	20.6	29.4
Insurance	na	24.1	25.7 (6)	29.3 (9)
Reinsurance	na	65.4 (1)	64.1 (6)	63.0 (7)
Wholesale trading	na	na	49.4	35.9
Retail trading	na	38.4	40.6	31.2
Accounting	na	na	33.0	47.6 (11)
Advertizing	na	30.1 (4)	26.3	22.5
Market research	na	na	na	50.4 (8)
Construction	na	na	42.2	24.4
Publishing	na	38.2 (2)	29.9	20.4
Hotels	na	50.4 (5)	49.3	37.1

(1) Sales of the three largest firms in the world as percentage of the 15 largest firms in the world.
(2) Sales of the three largest firms in the world as a percentagea of the 12 largest firms in the world.
(3) Sales of the three largest firms in the world as percentage of the 15 largest firms in the world.
(4) 1975. (5) 1977. (6) 1980. (7) 1985. (8) 1987. (9) 1986. (10) 1990. (11) 1989.

Table 10: Growth rates and shares of manufactured exports by technological categories, 1980-1996 (%). In: Lall 1999: 1775.

	Growth rates (% p.a.)				Developing country shares (%)		
	World	Industrialized countries	Developing countries	Developing less industrialized	1980	1996	Change in share
Total	8.1	6.6	14.0	7.4	9.8	23.0	13.3
Ressoure-based	5.7	5.2	7.4	2.2	17.9	23.1	5.2
Low-technology	6.9	5.9	12.6	6.7	15.0	34.4	19.4
Medium-technology	7.8	7.2	17.4	10.2	3.0	11.5	8.6
High-technology	11.6	9.8	21.1	11.3	8.1	29.8	21.7

Table 11: Direct and indirect R&D support to manufacturing industry. Reported expenditure in billion US$. In current US$, average of daily rates. In: OECD 1998a: 196.

	1989	1990	1991	1992	1993	Total 1989-1993
Direct R&D supports (282 progammes) (NCG)	6.4	7.4	8.7	9.2	8.3	40.0
R&D contracts to manufacturing industry	19.3	17.8	17.5	16.7	17.2	88.5
Space agencies: contracts awarded by/procurement of	4.9	5.9	5.6	6.5	6.4	29.3
Public support to intermediary R&D institutions	0.8	0.9	0.9	1	1	4.6
R&D defense procurement expenditure	28.9	30	28.4	29	29.5	145.8

Table 12: Outcomes of FTC Horizontal Merger Investigations (1983-1996). In: Coate 2000: 327.

Fiscal year	Merger filings	Mergers studied	Adandon deal	Quick look	Lawsuit voted	Closed case
1983	1093	10	0	3	1	6
1984	1340	21	2	6	7	6
1985	1603	19	1	4	7	7
1986	1949	22	0	5	5	12
1987	2533	16	1	2	9	4
1988	2746	36	11	4	15	6
1989	2883	28	8	6	6	8
1990	2262	50	15	12	13	10
1991	1529	30	9	7	7	7
1992	1589	21	5	8	5	3
1993	1846	34	10	5	8	11
1994	2306	37	5	2	18	12
1995	2816	45	8	9	17	11
1996 (a)	3087	27	4	5	12	6

Mergers studied: Mergers studied in the second request process.
Abandon deal: Cases which were abandoned after a second request for additional information was issued.
Quick look: Cases closed after partial investigation, which revealed that the transaction was unlikely to have an anticompetitive effect.
Lawsuit voted: Actual number of horizontal enforcement actions.
Closed case: Merger accepted after full review

It remains unclear in which category 'fix-it-first'-settlements fall, which imply that divestitures are enforced. It it most likely, that these cases do not appear in this table at all, because negotiations plus divestiture agreements might take place already after the first filings, before the a second request is issued.

(a) Despite a March 1996 reform relaxing filing obligations the numbers are high. It is estimated that the filing reform reduced filings between 7 and 10 %. Coate 2000: 326.

Table 13: 1982 Concentration Ratios for Representative Industries. Aus: Scherer/Ross 1990: 77.

S.I.C. Code	Industry Description	4-firm ratio	8-firm ratio	Number of Firms	HHI-Index (a)
3711	Passenger cars (five-digit)	97	99	n.a.	n.a.
2067	Chewing gum	95	n.a.	9	n.a.
3632	Household refrigerators and freezers	94	98	39	2745
33310	Primary copper (five-digit)	92	100	7	2483
3641	Electric lamps	91	96	113	n.a.
21110	Cigarettes (five-digit)	90	n.a.	8	n.a.
2043	Cereal breakfast goods	86	n.a.	32	n.a.
3211	Flat glass	85	n.a.	49	2032
3511	Turbines and turbine generators	84	92	71	2602
2082	Beer and malt beverages	77	94	67	2089
39641	Zippers (five-digit)	70	81	n.a.	1452
36512	Household television recievers (five-digit)	67	90	n.a.	1351
3011	Tires and inner tubes	66	86	108	1591
3721	Aircraft	64	81	139	1358
3334	Primary aluminium	64	88	15	1704
2841	Soap and detergents	60	63	642	1306
3691	Storage battaries	56	79	129	989
3523	Farm machinery and equipment	53	63	1787	1468
3221	Glass containers	50	73	41	966
3411	Metal cans	50	68	168	790
2822	Synthetic rubber	49	74	63	935
3562	Ball and roller bearings	47	65	109	724
3312	Blast furnaces and steel mills	42	64	211	650
2211	Cotton weaving firms	41	65	209	645
2041	Flour and other grain mills	40	60	251	551
3674	Semiconductors	40	57	685	597
3144	Women's footwear, except athletic	38	47	209	492
3621	Motors and generators	36	50	349	476
2051	Bread, cake, and related products	34	47	1869	410
2873	Nitrogenous fertilizers	32	57	109	515
3241	Portland cement	31	52	119	469
3541	Metal-cutting machine tools	30	44	865	351
2911	Petroleum refining	28	48	282	380
2834	Pharmaceutical preparations	26	42	584	318
2851	Paints and allied products	24	36	1170	2222
2651	Folding paperboard boxes	22	35	457	212
2711	Newspapers	22	34	7520	193
3552	Textile machinery	22	32	511	200
2421	Sawmills and planing mills	17	23	5810	113
2026	Fluid milk	16	27	853	151
2086	Bottled and canned soft drinks	14	23	1236	109
3451	Screw machine products	8	11	1744	30
2335	Woman's and misses's dresses	6	10	5489	24
3273	Ready-mix concrete	6	9	4161	18

(a) Hirschfeld/Herfindal-Index. With the underlying market shares measured in percentage terms, the maximum possible value is 10.000. Values not available are in all cases relatively high.

Table 14: Profitability in the U.S. auto industry: net income after taxes, divided by stockholders' equity. In Adams/Brock 1990: 116.

	1947-1977	1980	1981	1982	1983	1984	1985	1986	1987
Big three producers (a)	14,3 %	-11.1%	-6.3%	-2.8%	31.3%	40.1%	24.3%	19,3%	18.6%
General Motors	19.5	-4.3	1.9	5.3	18.0	18.9	13.5	9.6	10.8
Ford	13.1	-18.0	-14.4	-10.8	24.7	29.5	20.5	22.1	24.9
Chrysler (b)	10.2	-	-	-	51.3	72.0	38.8	26.3	20.0
All U.S. manufacturing industries	11.8	13.9	13.6	9.2	10.6	12.5	10.1	9.5	12.8

(a) Arithmetic average: GM and Ford only, 1980-1982.
(b) 1980-1982 data not meaningful owing to federally guaranteed loans and government stock-ownership program.

Table 15: Rationalization Cartels Approved Under the Machinery Promotion and Electrical Industry Promotion Laws, 1956-1970. In: Kosai 1988: 47.

	1956	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Machinery	0	0	0	1	1	5	6	14	14	9	6	8	17	16	17
Electric	-	0	0	0	0	0	0	0	1	1	1	0	0	1	2

Table 16: Number of exempted cartels at the end of fiscal years (March 31, of the following year). In: Iyori et al. 1994:

Year	Number of cartels	Number of sectors	Year	Number of cartels	Number of sectors
1952	53	10	1973	908	233
1953	79	23	1974	788	190
1954	162	31	1975	654	167
1955	248	75	1976	528	150
1956	312	124	1977	535	150
1957	401	170	1978	506	130
1958	509	249	1979	491	121
1959	595	306	1980	489	120
1960	714	349	1981	503	114
1961	868	365	1982	471	105
1962	951	384	1983	436	102
1963	970	397	1984	440	103
1964	999	399	1985	427	103
1965	1079	415	1986	382	98
1966	1040	381	1987	310	87
1967	1003	380	1988	276	73
1968	954	378	1989	261	61
1969	886	347	1990	247	51
1970	845	318	1991	219	45
1971	976	281	1993 (Jan 1)	79	
1972	979	285	1994 (Jan 1)	79	

Table 17: Designation of depressed industries. In: Peck et al. 1988: 201-202.

Industry	Indentification as prospective designated industry	Designation as depressed industry	Approval of Basic Stabilization Plan	Duration of the Plan	Indicative cartel
1. Industry manufacturing rolled ingots of ordinary steel or semifinished steel products by use of either open-hearth furnace or electric furnace	Prescribed by statute	7/4/78	8/28/78	3/79-6/83	No
2. Aluminium-smelting industry	Prescribed by statute	7/4/78	1/27/79	3/80-6/83	No
3. Nylon-glass-fiber manufacturing industry	Prescribed by statute	7/4/78	10/23/78	1/79-6/83	Initially yes, later no
4. Polyacrylonitrile-glass-wool manufacturing industry	Prescribed by statute	7/4/78	10/23/78	1/79-6/83	Initially yes, later no
5. Polyester-glass-fibre manufacturing industry	Prescribed by statute	7/4/78	10/23/78	1/79-6/83	Initially yes, later no
6. Polyester-glass-wool manufacturing industry	Prescribed by statute	7/4/78	10/23/78	1/79-6/83	Initially yes, later no
7. Industry buildings ships by use of a dock or a shipway capable of building ship of 5,000 gross tons and more	Prescribed by statute	8/29/78	11/4/78	3/80-6/83	No
8. Ammonium-manufacturing industry	7/4/78	1/23/79	1/31/79	6/79-6/83	Yes
9. Urea-manufacturing industry	7/4/78	1/23/79	1/31/79	6/79-6/83	Yes
10. Industry manufacturing phosphoric acid by wet process	7/4/78	1/23/79	1/23/79	6/79-6/83	No
11. Cotton textiles	7/4/78	12/18/78	4/25/79	10/79-6/83	No
12. Spinning industry, including the manufacture of combed wool	7/4/78	12/18/78	2/28/79	8/79-6/83	Yes
13. Ferrosilicon-manufacturing industry	8/29/78	11/10/78	12/26/78	6/79-3/83	No
14. Linerboard- and corrugating medium manufacturing industry	3/2/79	4/14/79	6/15/79	9/79-3/83	Yes

Table 18: Actual and planned capacity reductions, changes in concentration. In: Peck et al. 1988: 211, 214.

Industry	Equipment	Capacity before disposal (1,000 tons)	Goal as % of initial capacity	Net reduction as % of initial capacity	HHI		Number of firms	
					1977	1982	1977	1983
Concentrated Industries								
Aluminium industry	Electric melting furnace	1,642	57	54	2,161	2,387	7	5
Nylon filament	Spinning machine	367	20	17	2,079	2,002	6	6
Polyester staple	Spinning machine	398	20	15	2,051	2,029	8	8
Polyacrylonitrile staple	Spinning machine	431	20	18	1,728	1,779	6	6
Urea	Synthesizing, separation, granulation facilities	3,985	45	42	1566	1,741	12	8
Polyester filament	Spinning machine	350	13	5	1,386	1,380	8	9
Unconcentrated industries								
Ammonia	Casification, refining, or synthesizing facilities	4,559	26	26	848 a	1,009	18	14
Ferrosilicon	Electric furnace	487	20	34	771	1,293	16	10
Shipbuilding	Building berth or dock	9,770	35	37	660	436	61	44 b
Linerboard	Paper machine	7,549	15	14	622	577	88	79
Phosporic acid	Reaction filtration facilities	934	20	19	467	534	21	13
Wool	Spinning frame	182	12	23	377	367	142	109 b
Cotton spinning	Spinning frame	1,204	6	8	304	358	258 c	193 b
Electric-furnace steel	Open hearth or electric	20,790	14	-	161	257	69	57

a: 1979 data, b: 1981 data, c: 1978 data.

Table 19: Business tie-ups under the 1983 law. In: Peck et al. 1988: 234.

Industry	Nature of business tie-up	Number of cases
Compound fertilizer	Merger	1
Paper (except Japanese paper)	Merger	1
Phosporic acit (wet process)	Concentration of Production	1
Fused magnesium phosphate fertilizer	Concentration of Production	2
Ethylene	Concentration of Production	1
Ethylene oxide	Rationalization of transportation	1
Unplasticized polyvinyl chloride pipes	Rationalization of production and transportation	4
Polyolefin	Joint-sales companies	4
Polyveinyl chloride	Joint-sales companies	4
Cement	Joint-sales companies	5