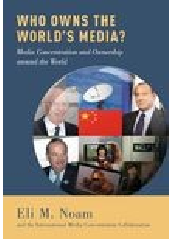

Who Owns the World's Media? Media Concentration and Ownership around the World

Eli M. Noam and The International Media Concentration Collaboration

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CHAPTER

32 National Media Concentrations Compared

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Abstract

This chapter examines and summarizes country data across all of the 30 nations surveyed in this study, chosen for their importance in the media world, their GDP, and population size. Four concentration indices form the basis for country-by-country comparisons: the C4 and C1 indices, Herfindahl-Hirschman Index, Noam media concentration index, and power index. Each index is explained in its respective section, which details the following: what the index is; what the index represents; what the data show; the world averages of the index; the top and bottom countries relative to that world average; and the United States' concentration numbers, as the largest of media markets. Also analyzed and compared are the number of media voices, the number of voices per capita, cross-ownership, ownership shares by foreign companies and public ownership.

Keywords: media market, media industry, media ownership, country data, concentration index, media voices, foreign ownership, public ownership media market, media industry, media ownership, country data, concentration index, media voices, foreign ownership, public ownership

Subject: Economic Sociology, Social Research and Statistics

Introduction

This chapter examines and summarizes country data across all of the 30 nations surveyed in this study. To remind the reader: these countries were chosen on the basis of their importance in the media world, their GDP, and population size. Combined, they account for 90% of media revenues, 82% of the world's GDP, and 63% of the world's population. Twenty-two of the countries are OECD members. The study covers 95.2% of overall OECD GDP and 94.8% of its population.

Tables 32.1 and 32.2 show the size of the media sectors in the various countries, first for content media, then for platform media. They show the large share of US market (36.5% and 31.4%). It is followed by Japan (8.7% and 10.4%), China (4.8% and 10.5%), the United Kingdom (7.9% and 4%), Germany (7.6% and 5.4%), France (5.1% and 4.2%), and Spain (4.7% and 3.2%). Together, these seven countries account for 75.3% of the 30-country world in content and 69% in platforms. In platforms, Canada (3.3% and 3%), Italy (3.1% and 2.6%), and Brazil (3.2% and 6.3%) join these seven countries to control 80.8% of the sector (84.8% for content).

Table 32-1. Content Media Revenue, 30 Countries (Mil US$)

	2004/5	2011/3	Percentage (%)
United States	243,167	268,222	36.5%
Japan	58,770	63,861	8.7%
United Kingdom	45,912	58,004	7.9%
Germany	48,194	55,999	7.6%
France	32,856	37,462	5.1%
China	8,598	35,272	4.8%
Spain	28,254	34,088	4.6%
Canada	15,217	24,089	3.3%
Brazil	10,662	23,354	3.2%
Italy	17,453	22,873	3.1%
Australia	10,284	16,998	2.3%
Netherlands	8,674	9,323	1.3%
Russia	2,674	9,122	1.2%
Sweden	6,638	9,041	1.2%
India	4,957	8,774	1.2%
South Korea	5,846	7,827	1.1%
Portugal	4,893	6,450	0.9%
Switzerland	4,672	5,562	0.8%
Belgium	3,854	5,011	0.7%
Mexico	3,533	4,825	0.7%
Finland	2,890	3,868	0.5%
Ireland	3,455	3,788	0.5%
South Africa	2,059	3,725	0.5%
Turkey	1,675	3,465	0.5%
Argentina	1,675	3,229	0.4%
Taiwan	3,441	3,181	0.4%
Chile	1,719	2,129	0.3%
Poland	1,802	1,988	0.3%
Israel	1,436	1,961	0.3%
World Total Content Media	586,173	734,749	100.00%
World GDP	52,000,000	72,000,000	
Content Media as a % of World GDP	1.1%	1.0%	

Table 32-2. Platform Media Revenue, 30 Countries (Mil US$)

	2004/5	2011/3	Percentage (%)
United States	409,398	521,350	31.4%
China	50,300	173,430	10.5%
Japan	115,104	171,942	10.4%
Brazil	65,361	103,697	6.3%
Germany	79,198	89,152	5.4%
France	43,066	68,955	4.2%
United Kingdom	58,186	66,506	4.0%
Spain	44,559	52,893	3.2%
Canada	27,855	49,644	3.0%
Italy	46,787	42,450	2.6%
Russia	18,117	36,492	2.2%
India	10,235	34,683	2.1%
Australia	21,624	33,132	2.0%
South Korea	23,087	32,730	2.0%
Mexico	18,177	25,701	1.6%
Netherlands	17,055	21,286	1.3%
Turkey	9,523	16,053	1.0%
South Africa	13,561	15,800	1.0%
Belgium	11,999	13,525	0.8%
Poland	9,617	12,691	0.8%
Switzerland	8,404	11,781	0.7%
Taiwan	10,638	11,495	0.7%
Sweden	8,712	10,459	0.6%
Portugal	7,489	8,772	0.5%
Egypt	3,166	6,721	0.4%
Ireland	6,180	6,469	0.4%
Argentina	4,416	5,789	0.3%
Israel	4,939	5,468	0.3%
Finland	4,678	5,399	0.3%
Chile	2,382	3,528	0.2%
World Total Platform Media	1,153,813	1,657,993	100.00%
World GDP	52,000,000	72,000,000	
Platform Media as a % of World GDP	2.2%	2.3%	

Table 32.3 shows the worldwide revenues for the 13 media industries in the 30 countries: the total value of all media activities in 2013 was US$2.4 trillion, up from US$1.7 trillion in 2005.[1] The new ICT industries—

wireless and ISPs—grew very rapidly, while the older wireline industry has seen a low growth per annum (0.2%) due to the expansion of wireless services at its expense. The print newspapers industry has been shrinking by −1.2% per annum. The most pronounced change in this period of time has been in search engines (a 23.7% per annum increase). In absolute terms, by far the largest increase was that of mobile
p. 1018 wireless, which grew, on average, by $40 billion per year, and became the largest media industry. ↳ ISPs grew by $12 billion a year, and search engines by $3.5 billion.

Table 32-3. Industry Revenues (30 Countries)

	2004/05 (mil US$)	2011/3 (mil US$)	Annual Growth Trend (8-yrs)
Wireless	416,773	740,038	9.7%
Wireline	581,810	589,986	0.2%
Multichannel Platforms	131,234	247,666	11.1%
Broadcast TV	146,227	184,379	3.3%
ISP	67,303	162,033	17.6%
Newspapers	116,295	106,734	−1.0%
Book Publishing	64,021	72,224	1.6%
Magazines	60,830	79,590	3.9%
Video Channels	56,855	70,636	3.0%
Radio	45,231	47,687	0.7%
Search Engines	14,242	41,300	23.7%
Film	26,607	30,710	1.9%
Online News	12,558	19,760	7.2%
Total 13 Media Industries	1,739,986	2,392,742	4.7%

Four concentration indices form the basis for country-by-country comparisons: the C4 and C1 indices, the Herfindahl-Hirschman Index (HHI), the MOCDI (Noam) Media Concentration Index (NI), and Power Index (PI). Each is explained below in its respective section, which details the following: (1) what the index is, (2) what the index represents, (3) what the data show, (4) the world averages of the index, (5) the top and bottom countries relative to that world average, and (6) the US concentration numbers, as the largest of media markets.

The concentration indices described below are used across the 13 media industries in several different ways:
p. 1019 weighted average, unweighted (arithmetic average), and pooled. The "weighted ↳ average" adjusts, in averaging, for different sizes of industries. In contrast, a "pooled" concentration index treats all 13 industries as part of a larger single media sector and looks at market shares and concentration within that larger market.

A pooled measure lowers the concentration numbers, of course, but it does so for all countries, and thus comparisons are still possible. What is gained is a dimension of cross-ownership, insofar as major companies often operate in several industries, and pooling the industries hence shows their overall share in an overall national media market. We have also another way to identify cross-ownership, through the power index, to be discussed below.

p. 1020 Another distinction is that of the two sub-sectors of the overall media industry, namely "platform media" and "content media." Platform media refers to the transmission and delivery of media, while content refers to consumed material. Of course, many firms are both providers of content and of platform services. And several industries straddle the platform/content divide. This is particularly true for multichannel platforms. A cable television provider offers both transmission of media content over its distribution plant, similar to the telecom's provision of network connectivity, and it also provides a bundle of channels to subscribers.

The subscriber typically pays for both bundled together, but that is a billing and economic convention. When the same cable TV operator offers Internet connectivity, and the user also subscribes to the video services of a content provider such as Netflix, the distinction becomes clearer. In traditional cable TV service, the operator secures rights to various channels of content and pays their providers a fee, which becomes part of the cost that is then covered by the subscription. (To make things still more complicated, some of those channels might be created by the cable company itself.) To allocate revenues among content and platform services of a multichannel provider, we used their cost share in overall costs. This resulted in an allocation one-third of multichannel revenues toward content and the other two-thirds toward platforms.

Another way to look at media concentration diversity is to count "voices" rather than market shares. The basic idea is that regardless of a low popularity of a media outlet, its mere existence provides a valuable option to the public.

Additional dimensions of analysis are "Foreign Ownership" and "Public Ownership." The latter shows how much of a country's media market is controlled by state enterprises. These can be direct state operations, or semi-independent organizations like public-service broadcasters, or private-law companies in which the government is a controlling shareholder. "Foreign Ownership" means that a company's ultimate controlling owners are operationally headquartered in another country. For example, Telefónica, one of the world's largest telecom companies, is counted as a foreign operator in Argentina or the United Kingdom. Sony, headquartered in Japan, is considered a foreign-owned company in the US market even though its film studio, the former Columbia-TriStar, is one of the traditional Hollywood "Big Six."

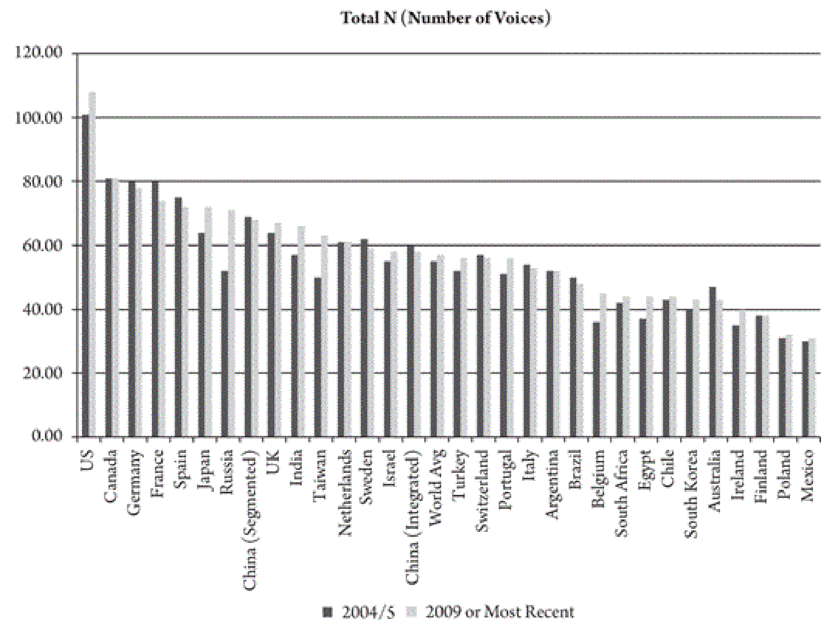
p. 1021 A discussion of the primary trends in concentration at the national level follows the presentation of each table. The text also briefly notes specific issues of competitiveness and diversity in the countries, although that is discussed more thoroughly in the country chapters by their respective authors.

These authors are knowledgeable analysts of their country's media industries, and are thus the main source for the data used in this chapter. In a few cases, we have slightly recast their data to achieve consistency in market definitions. We have also updated numbers to account for subsequent mergers and spin-offs.[2]

Concentration Measured by Voices

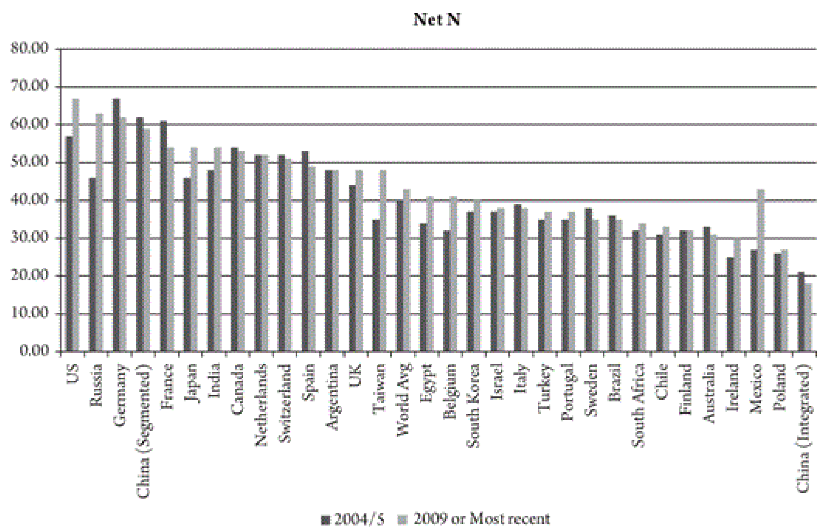
We start with media voices. Pluralism requires the vigorous interplay of media "voices"—newspapers, magazines, TV networks, radio stations, and so on. This is expressed, in Graph 32.1, in terms of the total number of voices (*n*), which represents how many entities are present. But, not literally all. To include every college newspaper or specialty magazine as a "voice" would be an impossible task in data terms and would also clutter up the big picture. We therefore consider only those entities that achieve, within their content-producing industry, at least 1% in terms of market share and are thus on a society's "radar screen."[3] This total number of voices, however, contains duplication when a company owns, for example, a TV network as well as a radio network. To account for this, in Graph 32.2 we subtract the number of "duplicate" owners from the total *n*, arriving at a "net *n*." For example, in Italy the holding company Fininvest owns a book publisher (Mondadori), three broadcasting networks (Mediaset), and a film producer/distributor (Medusa). p. 1022 They are counted as one "voice" because they are ↳ all owned by Silvio Berlusconi and his family. When these and other cross-holdings are taken into account, net *n* in Italy stands at 39, whereas total *n* equals 52. Similarly, state-owned entities, such as Russia's various state-run broadcast networks (Gazprom Media, First Channel, and VGTRK) or South Korea's public broadcasting companies all count as one "voice."

Graph 32.1



Countries' Total *N* (Number of Voices), Companies with 1% of Market Share

Graph 32.2



Countries' Net *N* (Number of Voices), (Companies with >1% of Market Share)

Within China, we display voices both as "Integrated"—that is, all state-owned enterprises count as a single voice in an industry, regardless of which agency or level of government controls them—as well as "Segmented," which treats each state enterprises as an independent entity. As elsewhere, only the "Integrated" number is included in world averages.

To properly assess this, one needs to recognize that the definition of a voice, being tied to a market share (1%), varies across countries, and this must be taken into account. This is further discussed in the chapter "Analyses."

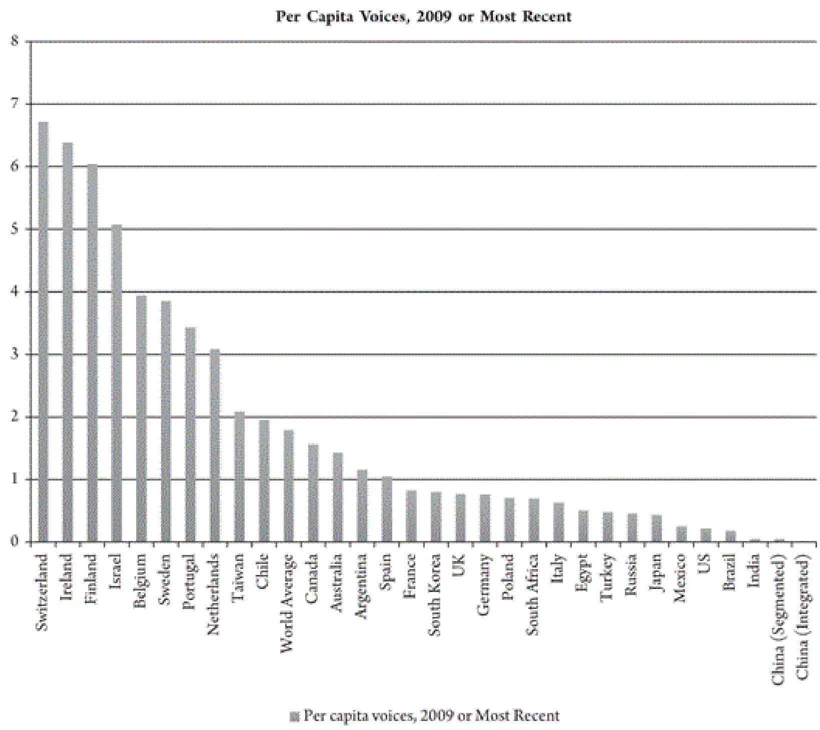
The findings show:

- Since 2004, the world average of net voices per country slightly increased from 41 to 42, meaning that, on average, a country typically has 42 independent content media producers active in its national media market, possessing at least 1% in one of the media markets.
- China has the lowest net *n* due to the extent of state control: with the state as a single owner, the country has merely 17 net voices whose size is above 1% in their industry. If each state enterprise is counted as an independent company, China's net *n* rises to 62, almost the highest in the world.
- Russia had an increase in its net *n* of voices from 42 in 2004 to 58 by 2012. This was due to the increase in the number of new media outlets entering the market.

- The United States has the largest number of total voices (99) and net voices (59). It is followed by Russia (58 net), France and India (both 54), Japan and Spain (each with 53), Germany (52), and Canada and the Netherlands (each with 50).

However, things look very different when one takes into account the size of a country in terms of population (Graph 32.3).

Graph 32.3



Countries' Per Capita *N* (Number of Voices), Companies with >1% of Market Share (2011 or Most Recent)

Per capita voices are calculated by dividing net *n* over the population of each country.

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- ↳ Worldwide, while the United States has the highest number of voices, on a per capita basis it is actually quite low (0.2 per one million people), due to its population size (and higher threshold for a voice definition.)

- Brazil and India, whose net *n* values are 26 and 54 to China's 17, are also close to the bottom. In China, it is a combination of state ownership and population that lands it in last place for voices per capita. Even with the average net *n* that separates out state enterprises, China would still be at the bottom.

- Countries with a high count of voices per capita tend to be relatively small but with active politics and culture. Their cut-off point for voices is also lower (see Chapter 37 "Analyses"). Europe has many such countries. The European countries' average is over twice as high as the North American and just about any region.

- The highest number of per capita voices are found in Ireland and Switzerland. Both countries have many media offerings spilling over from neighboring countries, which inflates the number. In the next tier are Israel, as well as Finland, Sweden, and Belgium (the latter three also counting major cross-border spill-ins).

- On the other extreme are countries that are large, as well as poor and sometimes non-democratic, and there the number of voices per capita is the smallest—China, India, Egypt, Mexico. Another finding is that the number of media "voices" in richer countries is two times as large as in emerging countries, on average.

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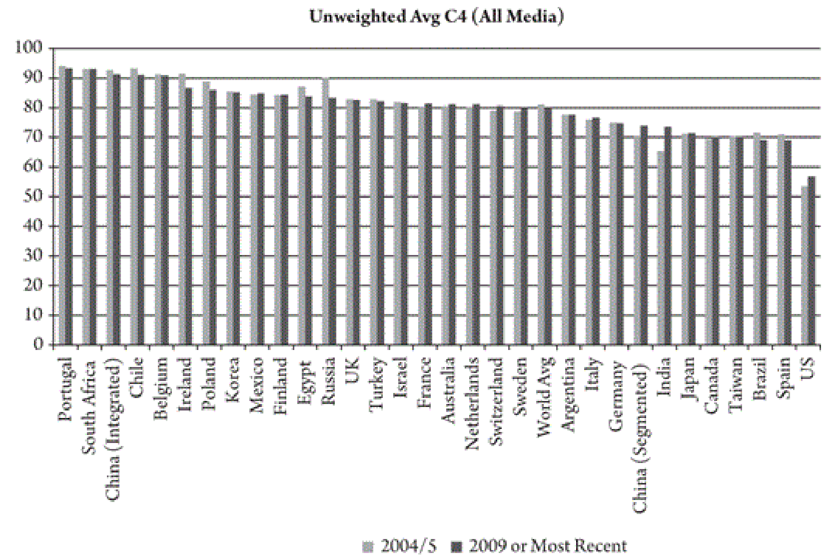
Concentration Measured by the Market Share of the Top Four Firms

"C4" is a concentration measure that presents the combined market share of the top four companies in any media industry (Graph 32.4). When C4 ranges from 0% to 40%, the industry tends to be competitive if the companies are of roughly equal size. It says that smaller companies serve 60% or more of a market. With a C4 above 40%, the industry is most likely an oligopoly.

Graph 32.4



Countries' Unweighted Average C4 – All Media

The C4 for the film industry in the United States, for example, was 56.4% in 2013: this was the sum of the market shares of Viacom's Paramount, Time Warner's Warner Bros, Disney, and Sony, which had the largest market shares of all film studio-distributors in the US market that year.

C4 represents the film industry in isolation, not as 1 of 13 industries in the US's $790 billion national media market. A weighted average C4 for an industry weights these market shares by the revenue in that industry; for film, this would mean the weight is total industry revenue of $9.5 billion. When this is done for all 13 industries, and an average is then taken, the result represents the average level of concentration prevalent across all media industries, taking their size into account. It should be understood, moreover, that the top four companies are not the same in each industry. Later we will look at top companies across all media.

What do the findings show?

- The world average for unweighted C4 was very high 80.6% in 2004 and has slightly increased to 80.7% in 2013. For weighted C4, the world average has increased marginally, from an extraordinarily high 88.2% in 2004 to 88.6% in 2013. Weighted C4 is so high primarily because of the large revenues of platform media (i.e., a high weight on top of a high C4 concentration).
- The countries with the highest unweighted average C4s are China (97%), South Africa (94%), Portugal (91%), and Ireland (87%). Chile, Poland, South Korea, Mexico, and Finland are all at 86% while the United Kingdom has 85%. For weighted average, the highest are China (99%), South Africa (98%), Portugal (97%), South Korea (94%), Russia (94%), Poland (96%), Mexico (97%), and Egypt (94%).

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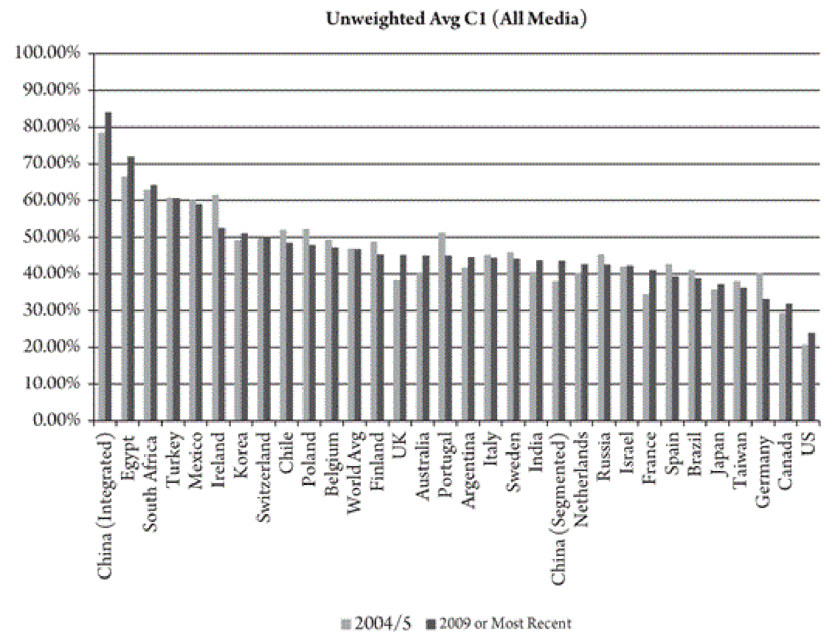
- The countries with the lowest weighted average C4s are Canada and Germany (both ↳ 82%), Spain (79%), India (80%), and the United States (67%). "Lowest" is a relative term when the numbers are so high, but they are lower than the world average (88.5%). Unweighted, the least concentrated countries are Japan and Canada (both 71%), Taiwan (70%), Spain (69%), and the United States (58%).
- Platform average C4 is higher than content, with a world average of 93.3% weighted, and 87.9% unweighted. C4 concentration is remarkably similar—and high—across countries. Only the United States is below 75% for both weighted and unweighted platform C4, and this is partly explained by the regional nature of wireline telecom in a geographically large country.
- Content media's C4 stood at 64.2% unweighted and 76.5% weighted.

- C4 was lowest in the United States for the measures all media, platform media, and content media, both unweighted and weighted. However, C4 has increased across all industries in this period for the United States (See Chapter 38).
- Other significant increases in C4 were seen in India and Sweden, and somewhat so in the Netherlands, the United Kingdom, Brazil, South Africa, Egypt, Poland, and China.

Concentration Measured by the Market Share of the Top Firm in Each Industry (C1)

"C1" presents the market share of the top company in each of the 13 media industries (Graph 32.5).(This is not the top company in the overall national 'pooled' media market, which describes the number 1 company in the whole of a country, discussed later in this chapter).

Graph 32.5



Countries' Unweighted Average C1 – All Media

The C1 for the broadcast TV industry in the United States, for example, was 17.6% in 2013: this was Comcast's share in this industry. The average of this and the other number 1 companies in each industry (AT&T for wireline, Google for search engines, etc.) is the unweighted C1. We also calculate a weighted average C1, using industry size (revenues).

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- ↳ The world average unweighted C1 was 46.7% in 2004 and has dropped slightly to 45.6%. It is high in particular due to platform media, where incumbent telecom providers dominate telecoms and public broadcasters are strong in Europe and Asia. The search engines industry is dominated by Google.
- The countries with the highest unweighted average C1s are China (86%), Egypt (64%), South Africa (662%), Turkey (53%), Mexico (59%), Ireland (52%), South Korea and Switzerland (both 50%).
- The countries with the lowest weighted average C1s are the Netherlands, Germany, the United Kingdom, and Spain (each around 40–42%), Finland (38%), Canada (37%), and as the lowest, the United States (24%). Here, too, "lowest" is a relative term when the numbers are so high, the world average being 48.3%. There are at least 17 countries with C1s in the 40–50% range. For unweighted C1, the least concentrated nations are Canada (32%), Spain (36%), Brazil and France (both 38%), and the United States (22%).
- For platform media, weighted C1 concentration is high across countries at 52.9% (though declining from 60.6% in 2004). Only the United States (26%), Canada (39%), Brazil (37%), and Finland (38%) are below 40%. China is at 100% due to state monopoly of telecommunications; the next most concentrated countries are Mexico (70%), South Africa and Turkey (both 67%), though these figures

represent a decline relative to 2004 numbers. Platform concentration is are high but falling, as the mobile market expands and the still-concentrated wireline market loses weight to mobile.

- Content media average C1 is 40.9% weighted and rising. China is highest with 88%. Egypt, Mexico, South Korea, South Africa, Brazil, Italy, Ireland, Australia, the Netherlands, Switzerland, and the United Kingdom all surpass 40%.

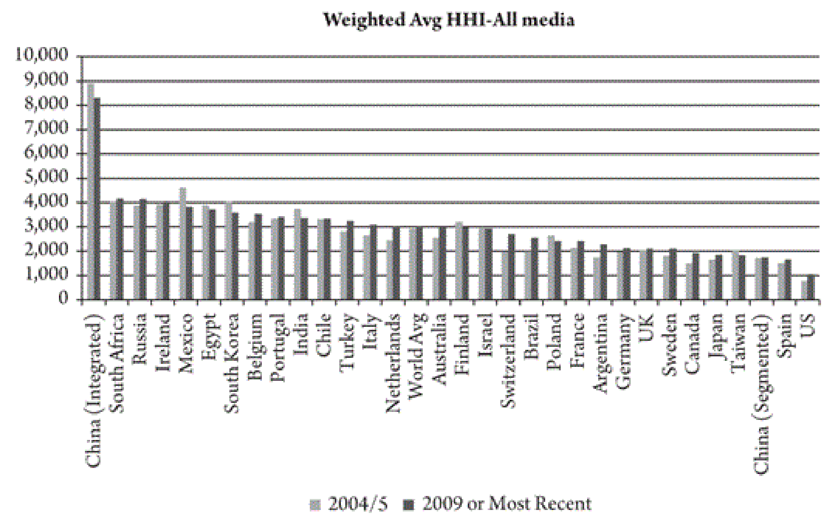
- C1 was lowest in the United States for all media, both platforms and content, and both unweighted and weighted. However, as with C4, the C1 has increased across all industries in this period for the United States. Significant decreases occurred in Russia, Turkey, and Germany — driven by the decline of public incumbents.

Concentration Measured by HHI

The Herfindahl–Hirschman Index (HHI) measures concentration in a more informative (though less intuitive) way than the C4 concentration ratio described above. C4 does not account for companies that are below the top four but may still have an important presence. For example, in the US film industry, the shares of firms ranked number five and six in 2013 (Lionsgate Films and Sony Entertainment) are quite similar to those of the top four. Also, the aggregation of the C4 distribution does not account for the distribution of shares within it, which can vary greatly. A C4 of 60% does not show whether competition is relatively high—the top four firms each have about 15% market share—or low (one firm holds 55% of the market share in the industry, the remaining three combined account for just 5%).

The HHI rectifies this shortcoming of the C4 by squaring the market shares of the companies in an industry and then adding them up, thus giving extra weight to high market shares (Graph 32.6). The resulting sum ranges between 0 and 10,000 points (where one company holds 100%, and its squared market share is thus at 10,000). The US government's anti-trust enforcement guidelines hold that HHIs under 1,500 are defined as "unconcentrated"; "moderate concentration" occurs in the range of 1,500–2,500, and the "high" concentration starts at 2,500. (These thresholds had been raised considerably in 2010. Until then, they were 1,000 and 1,800 respectively).

Graph 32.6



Countries' Weighted Average HHI – All Media

Although the HHI index is more informative, it lacks the intuitive simplicity of the C4 index. It is easy to assess that a market share of the top four firms of 80% is high. It is less clear what an HHI of 2,600 means.

Findings:

- p. 1027 Looking at concentration around the world, our first finding is that it is high everywhere. ↳ The average media industry in the average country has an unweighted HHI of 3,448 — well inside the range of "highly concentrated" of antitrust.

- World average weighted national HHI shows a high level of concentration that is declining, from 4,306 to 3,729, i.e., by −1.9% p.a.

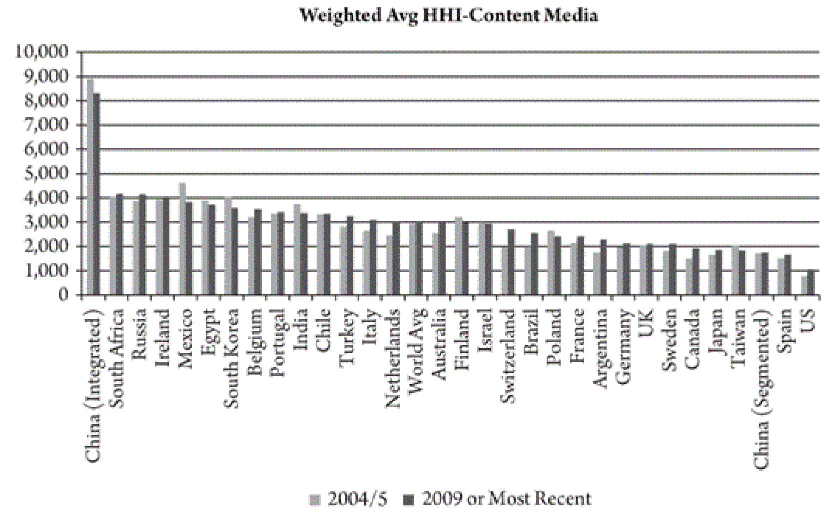
- The countries with the highest weighted average HHIs are China (integrated, 9,700), South Africa (5,535), Egypt (5,041), Turkey (5,012), and Mexico (5,315). The first three have high HHIs due to state ownership of media, the second due to privately owned conglomerates favored by the state. In South Africa, the state operators SABC in broadcasting and Telkom in ICT infrastructure dominate, while the private company Naspers is strong in the print and video channels industries. Mexico is dominated by two media groups, Carso (Telmex) and Televisa.

- The countries with the lowest weighted average HHIs are Brazil (2,773), France (2,694), the Netherlands (2,754), Canada (2,506), and the United States (1,389). India is relatively low (2,935 in 2012) and declining (it was 4,906 in 2004) because the historic government monopolies in telecom and broadcasting are offset by media diversity in other sectors.

- In the United States, only search engines and wireless have HHIs over 2,500 (highly concentrated), while for audiovisual media, the average HHI is under 1,500. To visualize that number, an average HHI of 1,171 would be achieved by six equal-sized firms holding 14% apiece. Or, it is reached by five firms with shares of 25%, 17%, 13%, 8%, and 5%.

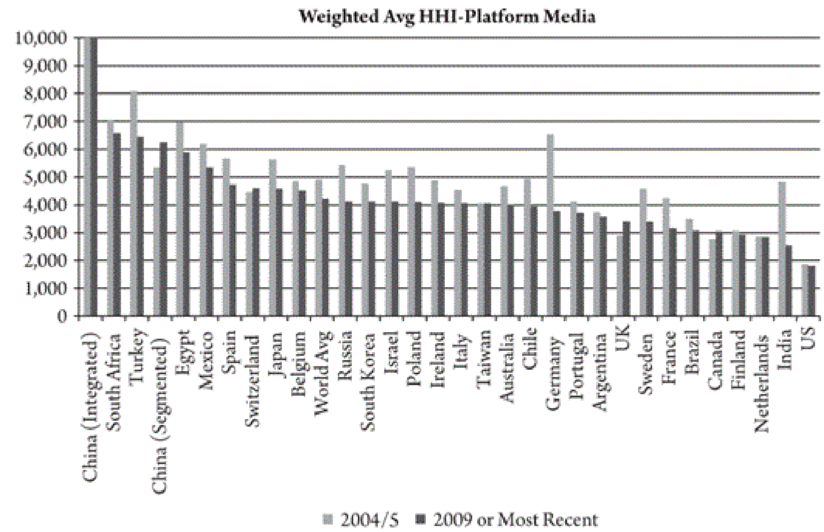
Graphs 32.6A and 32.6B separate out content and platforms' weighted HHIs.

Graph 32.6A



Countries' Weighted Average HHI – Content Media

Graph 32.6B



Countries' Weighted Average HHI – Platform Media

- Average national content media HHI is very slightly increasing—from 2,871 to 2,906 — while platform is decreasing (from a very high 4,872 to a still high 4,026). This reflects the overall global media trends in which content ownership remains consolidated while in platforms the mobile providers are becoming more competitive at the expense of the more monopolistic wireline industry.

- The United States is the least concentrated national market for both content (1,080) and platform media (1,742). China has the highest HHIs in both sectors. Even when state ownership is segmented, its platform concentration is well above the world average.

- Of all the countries surveyed, India's content and platform sectors show the biggest divergence: in
p. 1028 platforms, the country is low, at (3,001) in international comparison ↳ (4,027), but is above average concentrated in content media (2,673) by international comparison (2,907 world average) due to the legacy of state ownership in broadcasting.

- Content HHI concentration rose in the United States, Spain, Canada, Germany, Sweden, the United Kingdom, Argentina, France, Brazil, Switzerland, Australia, Netherlands, Italy, Belgium, Portugal, Ireland, and Russia.

- It declined in China, Mexico, South Korea, India, Finland, Israel, Egypt, Turkey, Poland, South Africa, Taiwan, and Russia.

- For platform media, HHI concentration dropped in most countries, in particular India, Sweden, France, Germany, Chile, Poland, Israel, South Korea, Russia, Japan, Mexico, and Turkey. It rose in the United Kingdom, Australia, and Argentina, and stayed flat in both China (10,000 when integrated) and Canada.

p. 1029

Concentration Measured by Noam Index

The Noam Index (NI) (so named by others, not by the author, and kindly accepted) is a diversity index that uses the net *n* voice measures for industries and countries to account for media pluralism (Graph 32.7). It uses market shares as the HHI does. It also incorporates the number of voices present to calculate how pluralistic a market is in terms of number of outlets (voices). The NI is calculated by taking an industry HHI and dividing it by the square root of the number of voices present in that industry. It is a content media measure and thus not applied to platform industries.

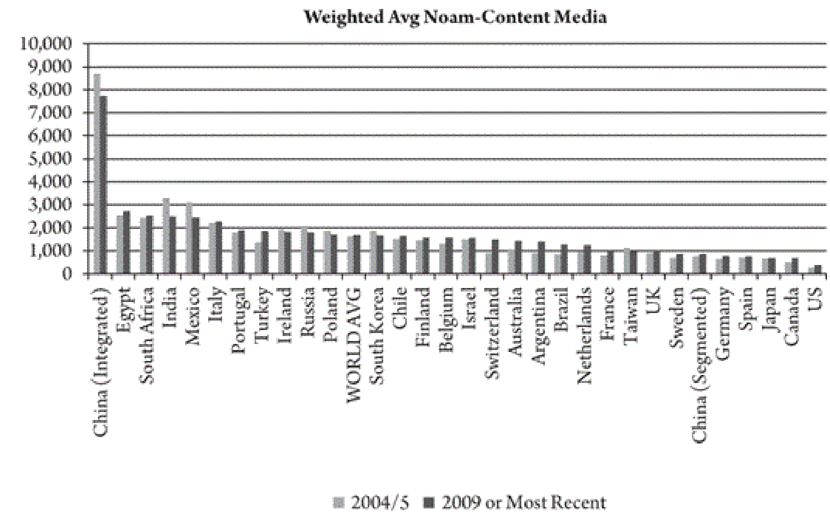
- The world average of the Weighted Noam Index has been slightly decreasing: from 1,627 in 2005 to 1,621 in 2013, which means content diversity has increased overall worldwide. There is a unique reason for this, even as content concentration increases overall by other measures:

- Emerging markets have been driving this slightly downward trend, such as China (down from a hugely high 8,902 to 7,491), South Africa (from 2,442 to 2,351) Russia (from 2,066 to 1,700), South Korea (from 1,874 to 1,716), Mexico (from 2,576 to 2,078), India (from 3,330 to 1,710), and Taiwan (from 1,060 to 980). New market entrants in content media increased the number of net voices. Of such emerging economies, only Brazil is an exception, with the index rising to 1,338 in 2013 from 1,157 due to market consolidation.

- If these emerging markets are excluded, the weighted average Noam Index for the world rises substantially: from 1,154 in 2004 to 1,326 by 2013.

- In the United States, the Noam Index increased from 227 in 2004 to 409 in 2013, but still the lowest measure of all 30 countries. The second lowest is Japan, at 635 and declining.

Graph 32.7



Countries' Weighted Average Noam Index – Content Media

Concentration Measured by Power Index

The industry-specific concentration measures (HHI, C4, NI), as well as the averages across industries are useful measures, but they do not capture cross-industry, multi-media market power. A firm may have moderate market shares in multiple media industries but no dominance in any. Looking only at one industry market at a time would understate a company's vertical and horizontal market position. p. 1030 ↳ How can one measure such cross-ownership? We propose a separate index for this: the Media Power Index (MPI).

There are several variations on the Power Index. They reflect the three dimensions of aggregation: across companies, across nations, and across industries. Of the eight possible combinations, five are of interest:

The *Media Power Index* for a single company in a single nation (MPI-CN) expresses a company's cross-ownership across the several media industries, but in a single country.

Second, the Media Power Index for each company in a single country can be aggregated for that nation's Media Power Index (MPI-N).

Third, a Media Power Index can also be calculated for a company across the world in a single industry. This is the MPI-CI.

Fourth, a Media Power Index showing the global power of a company can be calculated across both the various industries and the world's nations. This is the MPI-CW.

A fifth measure aggregates these global company power measures to one covering all industries, all companies, and all nations. This is the Media Power Index Global (MPI-G).

In the first case, a firm can be compared to other companies in the national market. The basic formula starts with the market share of a company in an industry, and squares that share, just as for calculating HHI. The result is then multiplied by the share of total industry revenue in that country in the total value of all the country's 13 media industries. This is done for all of the industries where the company is active in a particular country, and added together. For example, Telstra in Australia is active in the following industries: Multichannel 45%; Wireless 58%; Wireline 71.4 %; and ISPs 42.2%. It has a company PI of 2,577 in the latest year. The sum of all of Australia's media industry revenues is $50.1 billion, including the nine industries in which Telstra does not have a presence. Telstra, then, has a MPI-C of:

(((45%)^2*$3.3 billion) + ((58%)^2*$15.4 billion) + ((71.4%)^2*$13 billion) + ((42.2%)^2*$2.7 billion))/$50.1 billion = 2,577.

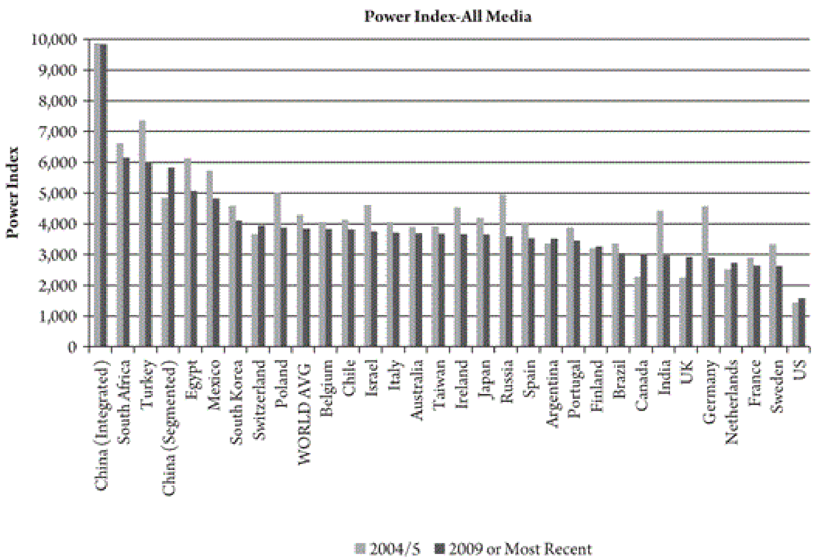
This represents the "media power" the company has in the Australian national market because it accounts for market power across several industries. Companies with the highest PIs are those with large market shares in high-value industries, which is why, for example, Google has a Company Power Index in the United States of 147 compared to AT&T's 385: Google in 2012 was only active in 1 of the 13 industries (search engines), and this industry produces much less revenue than the platform industries in which AT&T is active. (On the other hand, Google has a strong presence almost everywhere in the world and has thus a much higher Global Power Index in content media. More on that in the "Companies" chapter.)

A *National* Media Power Index is the sum of all company-PIs in a country, so for Australia that would be Telstra's 2,577 plus Rupert Murdoch's enterprises combined CPI of 433 plus Nine Entertainment's 131 plus SingTel's 289 and so on—which are all calculated using the same method as Telstra. When all companies are added together Australia's National Media Power Index (MPI-N) comes to 3,984. A high national PI relative to other countries means that there are significantly large companies that have large market shares in high-revenue media industries.

The world average National Media Power Index, for all media, stands at 3,701; down from 2004's 4,229.

In Graph 32.8 we can see the countries with the highest National Media Power Indices are China (9,702), South Africa (5,536), Mexico (5,298), Turkey (5,143), Egypt (4,774), Russia (4,092), and South Korea (3,997). These are, arguably, the countries with the greatest overall media concentration. Their high National Media PIs, though decreasing from the early 2000s due to liberalization and greater competition, stem from the larger cross-holdings that individual media groups (including the state as an owner, in China, South Africa, Egypt, Russia, and South Korea) hold in their national markets, or from one company holding a majority of the shares in a single high-value industry. For South Africa, these are Telkom (both a monopolist and cross-holder) and Naspers. In Mexico, they are the company power indices of America Móvil and Grupo Televisa. Turkey shows a similar
p. 1031 ↳ trend. Cross-ownership is a major cause of the high concentration, with few companies controlling most industries. For example, Dogan holds some of the highest market shares across industries including newspapers, magazines, radio, TV broadcasting, and online news media. The high National Media PI, though, is primarily the result of Turkcell and TT's domination of the telecom industries. South Korea is the result of a highly concentrated ICT sector and a large state role in audiovisual news media. Russia's stems from high telecom concentration and the government's television shares.

Graph 32.8



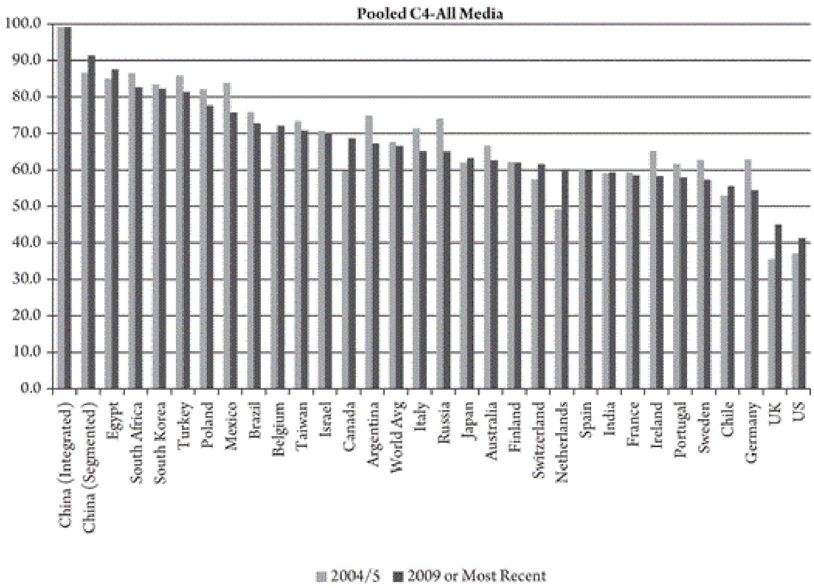
Country Media Power Indices – All Media

The countries with the lowest National Media Power Index are Germany (2,603), the United Kingdom (2,888), the Netherlands (2,726), Sweden (2,887), France (2,524), and the United States (1,482). Although major global companies are present in these markets, their market shares are rarely dominant enough to generate high national media Power Index scores. The US MPI-CN reflects the moderately oligopolistic nature of its media industries: though the largest firms have significant market share, near-monopolies are not present in high-revenue media industries on a national basis, except in search engines. But it is also rising, from 1,386 in 2005 to 1,482 in 2013.

Concentration Measured by Pooled C4

We move to the next set of concentration measures. A "pooled" concentration measure such as a pooled C4 looks at the market share of the top four companies in an entire national media market (Graph 32.9). Unlike the average weighted C4, it does not present a mean of concentration across all 13 industries, but describes the companies that dominate the national media market overall.

Graph 32.9



Countries' Pooled Overall Sector C4 – All Media

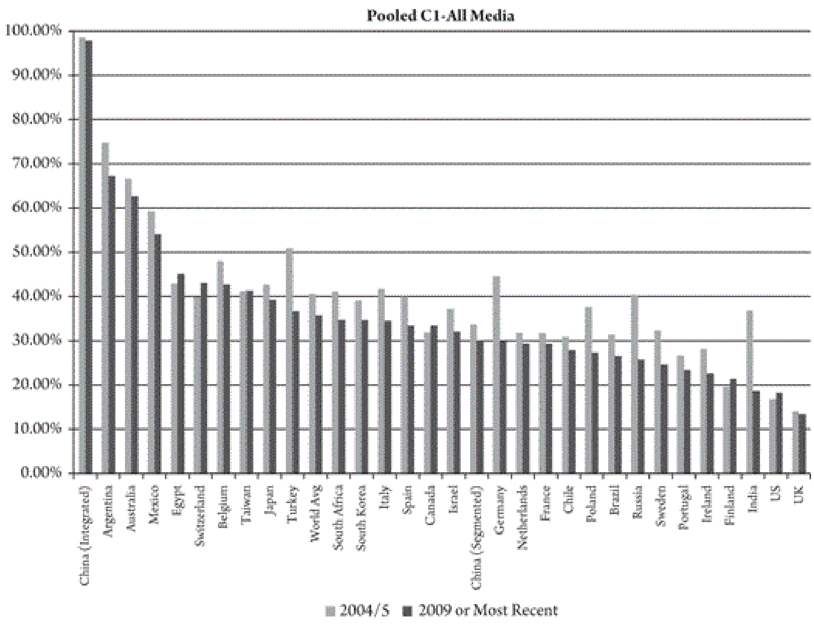
On average, the pooled overall sector C4 for the world is 66.8%, which means that, on average, four companies control 66.8% of each country's national media market. This is a high percentage primarily because it includes the inherently less competitive platform industries. We will therefore separate at platform media and content media:

- Pooled Overall Sector C4 is lowest in Germany (49.9%), in the United Kingdom, and in the United States (both 42.7%).
- p. 1032 ↳ If we separate pooled C4 for content and platform, the average concentration diverges. For content, the world average is 49.9%, much lower than it is for platforms, where it is a huge 86.7%. In other words, four firms (at most) account for almost all platform revenues in each country.
- When content alone is measured, China (91%), Mexico (69.9%), Portugal (68.9%), Turkey (67.2%) Ireland (66%), South Africa (63.4%), Italy (59.7%), and Russia (55.3%) have the highest pooled C4s. There are not many companies per industry in these countries' high-revenue industries. In Italy, Berlusconi's Fininvest and the public broadcast RAI dominate the content market.

Concentration Measured by Pooled C1

We move to the next set of concentration measures. A "pooled" concentration measure such as a pooled C1 looks at the market share of the top company of an entire national media market (Graph 32.10). It does not present a mean of concentration across all 13 industries like pooled C4, but describes the companies that dominate their total national market by revenue.

Graph 32.10



Countries' Pooled Overall Sector C1 – All Media

On average, the pooled overall sector C1 for the world is 32.2%, which means that, on average, one firm controls 32.2% of each country's national media market. Pooled Overall Sector C1 is lowest in Ireland (Eircom, 23%), Portugal (Oi Telemar, 23%), Finland (Elisa, 22.1%), India (Prasar Bharati, 20.5%), the United States (AT&T, 15.8%), and the United Kingdom (Murdoch, 16.4%). It is generally the case that pooled platform C1s are the same as pooled "all media" C1s globally, since the lead firm is usually a telecom firm.

If we separate pooled C1 for content and platform, average concentration diverges. For content, the world average is 23.6%, much lower than it is for platforms (42.6%). Only Mexico (45.7%) and China (79.2%) exceed 40% for pooled content C1.

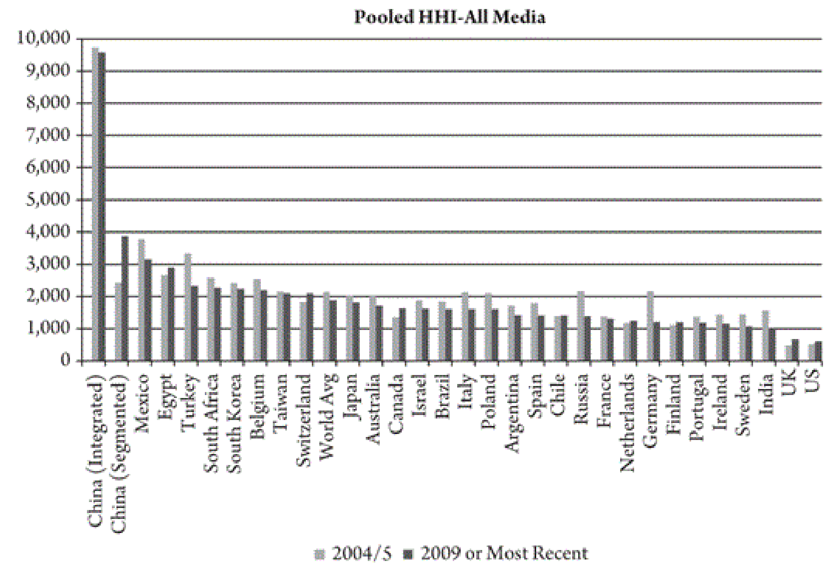
When content alone is measured, China (state enterprises cumulative: 79.2%, of which CCTV has 18.8%), p. 1033 Mexico (Televisa, 45.7%), ↳ Egypt (state enterprises cumulative, 35.2%), Russia (state enterprises cumulative, 36.4%), and Turkey (Dogan, 33%) have high pooled C1s. Brazil and South Korea are also over 30% (Globo and the public broadcasters, respectively). Argentina is also high (Clarín, 24.3%), along with Italy (Fininvest, 23.6%). Ireland (Independent News and Media, 29.4%) and South Africa (Naspers, 26.7%) are also above average. The United States' top firm, Comcast, scores 9.3%.

Pooled HHI

The Pooled HHI shows what the C4 index does not reveal: the distribution of market shares of the very top companies. The difference here is that the pooled measures use the major companies' shares of the national market as a whole, instead of treating each industry separately.

Graph 32.11 shows the world average for pooled overall HHI stands at 1,824 — down from 2,116 in 2004. This is, of course, much lower than the average sector HHI on an average weighted industry basis: the world average weighted HHI is 3,729. For content, it is 1,132 and for platforms, it is 2,908.

Graph 32.11



Countries' Pooled Overall Sector HHI – All Media

The countries with the highest pooled overall sector HHIs are China (9,311), Mexico (3,777), Egypt (2,853), South Korea (2,162), and Australia (2,038). These countries had large top-company shares in the national markets held by a few firms—America Móvil and Grupo Televisa in Mexico, Telstra in Australia, Mobinil and the Government of Egypt in Egypt, Liberty (Telenet) and Belgacom in Belgium, and the Government of China. South Africa (1,909) and Taiwan (1,904) also have high HHIs.

The countries with the lowest pooled overall sector HHIs are India (1,140), Finland (1,124), Germany (1,085), The Netherlands (1,001), the United Kingdom (689), and the United States (616). These lower-than-average pooled HHIs indicate that no company in these countries is particularly big in an overall sense, even if it p. 1034 might be large in a particular industry, such as Deutsche Telekom and AT&T in the German ↳ and American wireline markets (respectively), or the state in Indian broadcasting. The US pooled overall sector HHI of 564 reflects an intermediate share (relative to other countries) by the very top companies like AT&T and Verizon.

In both content and platform pooled HHI, China and Mexico stand near the top due to heavy concentration in their audiovisual and telecommunications industries. Russia's relatively high pooled content HHI of 1,522 indicates the extent to which the government has invested in media ownership (Gazprom, First Channel, and VGTRK are controlled by the Kremlin, and are the largest broadcasters outside of the privately owned enterprise CTC). Germany's significant platform media decline (from 5,354 in 2004 to 2,663 in 2013) is the result of Deutsche Telekom's market losses to new entrants in wireline, wireless, and ISPs.

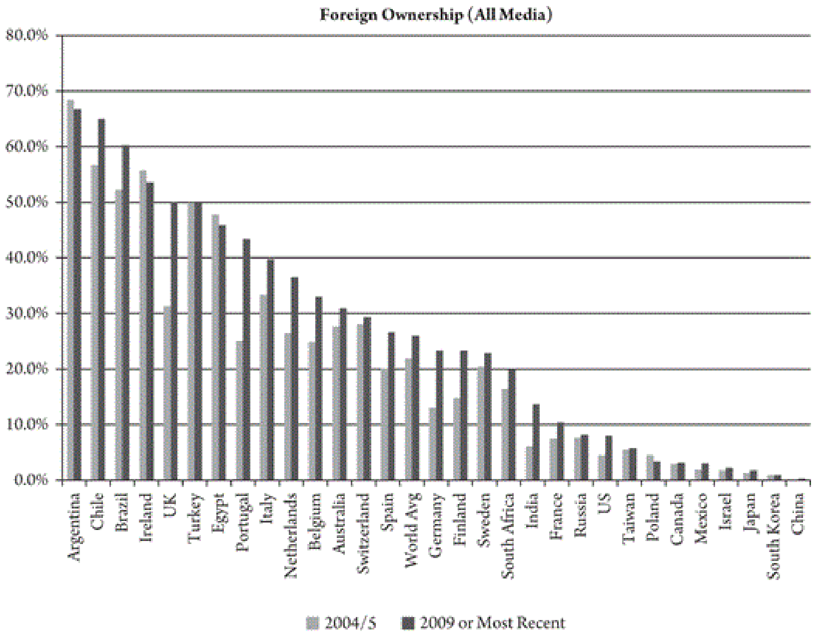
Foreign Ownership

We now move to another type of measure, that of foreign ownership.[4] This is, strictly speaking, not a measure of concentration, but it is nevertheless an indicator of the openness of a country's media market to the outside and the absence of barriers to such entry, which tends to raise competitiveness. Such barriers might be legal/regulatory, or simply those of difficulty in adapting to a foreign market with its special circumstances.

Foreign ownership of media has been increasing, rising from a world average of 24.5% in 2004 to 28.2% in 2013 for all media industries. The growth has been driven primarily by internationalization in telecom, especially mobile, and in the non-broadcast audiovisual media, enabled by usually more relaxed laws favoring domestic ownership.

To calculate the percentage of foreign ownership, we ignore small stock ownership by investment funds seeking diversification by purchasing stakes in foreign companies. The companies considered in Graph 32.12 are controlled by foreign entities. Their revenues are added together and calculated as a share of a country's overall media industries' revenue.

Graph 32.12



% Foreign Ownership in Country Markets – All Media

The countries with the highest percentage of market shares owned by foreign principal owners are Ireland p. 1035 (72.1%), Brazil (65.8%), ↳ Argentina (62.8%), Chile (62.4%), and the United Kingdom (52.1%).

Spain's Telefónica is responsible for the high concentrations of foreign ownership in the Latin American countries. US-based 21st Century Fox and News Corp., as well as foreign telecoms, account for the UK's share, especially with the formation of EE, a joint T-Mobile and Orange mobile and ISP service. Ireland has historically been a place for UK and US investors, now joined by Asian ones; major companies include Liberty (US), mobile provider Eircom (owned by SingTel of Singapore), Rupert Murdoch's companies, and also Telefónica.

In Chile, foreign investors from Mexico, Spain, and Argentina control most of the media market encouraged by proximity of geography, culture, or language. Argentina's own high foreign ownership percentage stems from the domination of its telecom industries by three international groups: Telefónica, Telecom Italia (and now by the Mexican investment company Fintech), and Grupo Carso's Telmex. This followed the sale of the monopoly state telecom operator in order to reduce the country's debt burden.

A similar trend is apparent in Brazil, where Telefónica, Telmex, and Telecom Italia (dominated by Telefónica) have high shares. Foreign ownership in Turkey is also high (49.3%), solely due to the privatization and sale of Turk Telecom, the former public incumbent, to the Oger Group of Saudi Arabia and Lebanon. Effectively, Turkey traded a high public ownership percentage for a high foreign one.

The countries with the lowest foreign ownership are countries with major regulatory restrictions of such ownership: Japan (1.8%), South Korea (0.9%), and China (0.5%) almost entirely in licensed magazines and Hollywood film imports. In South Korea, there is a state-mandated screen quota system that requires every movie theater to show Korean-made films 40% of the year. The Chinese government also has many restrictions on media ownership and import for all industries. South Korea's low foreign ownership rates p. 1036 are the legacy of security ↳ concerns. In Israel, foreign ownership has been growing (to 17.5%) because ownership rules are being relaxed. American owners have been permitted to buy into Israeli news media (TV stations and newspapers), and there is significant French ownership in cable platforms (Altice-HOT). Mexico used to have high barriers, but Telefónica's entry changed this. Foreign ownership in Mexico was 20% in 2012: still much lower than it is in Chile (62.4%), Argentina (62.8%), or Brazil (65.8%).

Between 2004 and 2013, the biggest increases were in India, Portugal, the Netherlands, Germany, Spain, and the United Kingdom. The Netherlands and Spain experienced more US companies' entry, and in Germany' Deutsch Telekom lost its near-monopoly on platform media. In Portugal Oi of in Brazil obtained a majority (62%) control over Portugal Telecom (which retains 38% control of their venture, after Oi's 2013 buyout). In India, Google (US) remains the most dominant foreign company with an 81.4% share in the search engine industry. Telecoms constitute the bulk of non-domestic ownership Vodafone (UK) has a 12.3% share of the national market in India, for example.

The United States has a foreign ownership percentage of 8.6%, mostly due to the mobile carriers Sprint (now owned by Softbank of Japan) and T-Mobile (Deutsche Telekom, Germany). Vodafone (UK) used to have a 45% stake in Verizon Wireless, but resold it to its partner Verizon in 2013. The United States has restrictive foreign direct investment regulations on the ownership of broadcasting assets, which has retarded efforts of Grupo Televisa of Mexico, a country with even more restrictive media ownership laws, to expand its presence to the U.S. Spanish-language broadcasting market. Televisa, however, has significant convertible debt in Univision, and large blocks of shares are held in place by several US private equity funds, ready for conversion into stock when the law permits.

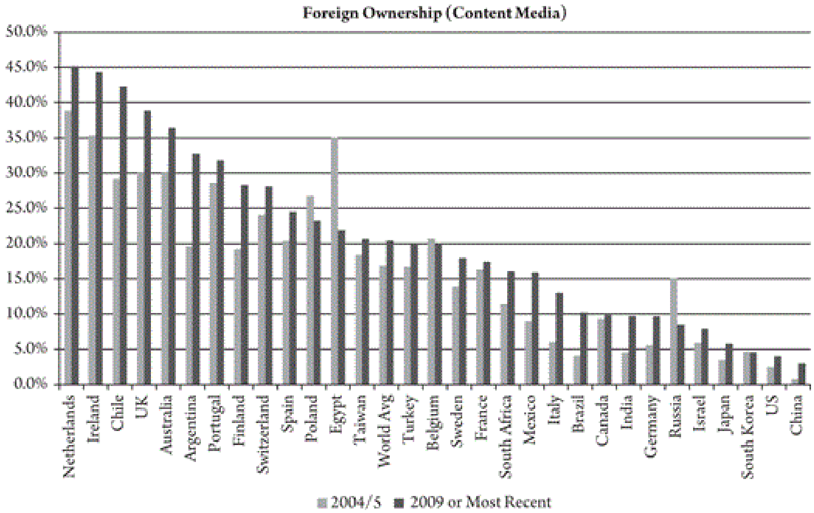
Like public ownership of media described below, ownership by foreign entities is a double-edged sword. As part of a global market power it reduces competition, as in the case of the Hollywood film studios. On the other hand, it can bring in new players with deep pockets to contest national incumbents, as in the case of wireline telecom. We find that content media industries are significantly domestically owned, but that foreign ownership has been increasing overall in the world (Table 32.4). The major exception is mobile telecom where, where foreign ownership is high. It is highest in Latin America, the Middle East, and in Europe.

Table 32-4. Foreign Ownership (All Media): By Region

	2004/05	2011 or Most Recent
Latin America	51.8%	52.7%
Middle East	32.5%	39.0%
Europe	26.4%	31.8%
BRICS	19.4%	23.9%
Asia-Pacific	10.7%	10.4%
North America	3.3%	5.5%

Foreign ownership within content and platform industries varies greatly, averaging 21% worldwide for content, an increase from 18.3% in 2004. Within national media markets, platforms usually account for most of the non-domestic ownership through mobile operators. Graph 32.12A shows foreign ownership in content media, which is highest in the Netherlands (55.2%) due to the growth of American and German companies there, and Ireland (39.4%), due to the presence of British outlets in newspapers, video channels, p. 1037 multichannel ↳ platforms, and broadcast TV. It is also high in the United Kingdom (for European mobile providers in telecom) and in Chile, where telecom is dominated by foreign firms. Foreign ownership of content media is lowest in Russia (9.8%), Japan (5.8%), the United States (3.1%), South Korea (4.9%), and China (3%). Table 32.5 shows the regional breakdown: content media ownership abroad is highest in Europe at 26.9%, due to the cross-border presence of Murdoch's News Corp. and 21st Century Fox, Liberty, ProSiebenSat.1, Sanoma, Fininvest, Bouygues, PRISA, and Bertelsmann. However, overall transnational holdings are low.

Graph 32.12A



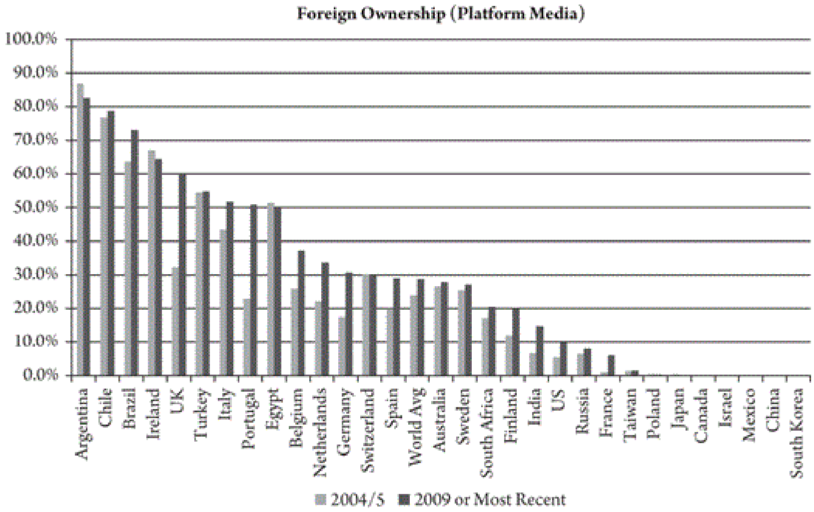
% Foreign Ownership in Country Markets – Content Media

Table 32-5. Foreign Ownership (Content Media): Region

	2004/05	2011 or Most Recent
Europe	23.1%	26.9%
Latin America	16.6%	23.7%
Middle East	20.5%	19.7%
Asia-Pacific	17.3%	17.0%
BRICS	9.3%	11.6%
North America	5.2%	5.3%

In platform media, however, foreign ownership is much higher: at an average worldwide of 31.5%, up from 26.6% in 2004/05 (Graph 32.12B). It is highest, but static, in Latin America (64% regionally) due to the presence of companies such as America Móvil and Telefónica (Table 32.6). It is lowest in North America (5.7%). Within Europe, Italy and Ireland account for the largest non-domestic platform ownership. In Italy it is accounted by VimpelCom's Wind in mobile telecom and by Telefónica's temporary control over Telecom p. 1038 Italia's holding company, Telco. In Ireland it is caused by SingTel of Singapore (controlled by ↳ the Singapore government's Temasek Holdings) and its control of the former Irish state incumbent, Eircom. In Portugal foreign ownership is high due to Brazil's Oi taking control in a merged Oi-Portugal Telecom (Oi Telemar). The Saudi-owned Oger Group obtained control in Turkey over Turk Telecom, with a 54.8% stake acquired during the privatization of the former state incumbent. Domestic firms dominate Japan, Spain, China, Mexico, France, Israel, South Korea, Mexico, Germany, and Poland in platforms. Of these countries, Mexico, Germany, Spain, and France's platform companies have the largest international export presence (America Móvil, Telefónica, Deutsche Telekom, and Orange).

Graph 32.12B



% Foreign Ownership in Country Markets – Platform Media

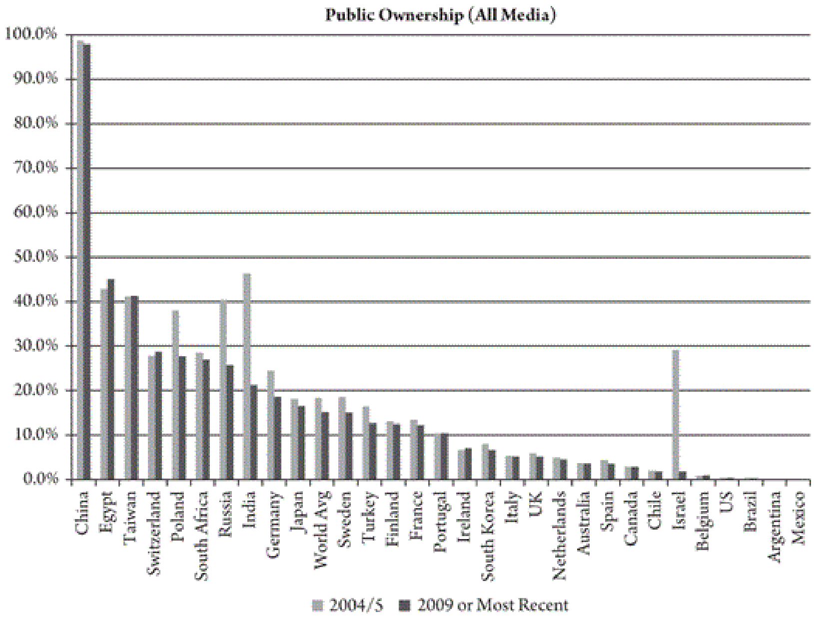
Table 32-6. Foreign Ownership (Platform Media): Region

	2004/05	2011 or Most Recent
Latin America	63.8%	64.0%
Middle East	34.7%	42.0%
Europe	28.0%	35.7%
BRICS	21.1%	26.6%
Asia-Pacific	8.3%	8.3%
North America	2.3%	5.7%

Public Ownership

The final measure for analysis is public (state or parastatal) ownership (Graph 32.13). We use the term "public" in the sense of "owned by public authorities," as distinguished from the use of the term in the stock market and investor community, where a "public company" means a firm whose shares are publicly traded in a stock market. Why is state/public ownership relevant to concentration? The higher such ownership in an industry or country, the less likely competition is. This can be due to the difficulty of contesting a government operation; or it might be legally prohibited; or, conversely, state ownership might p. 1039 indicate a phase of non-viability of ↳ competition, for example, in the early stages of a new medium. The early days of the Internet in the United States are an example. Public ownership used to be very high in many countries, with both telecom and TV entirely state-owned into the 1980s. Then came liberalization and privatization, which reduced that share.

Graph 32.13



% Public Ownership in Country Markets – All Media

Public ownership is decreasing internationally: for all media, it declined from 18.6% in 2005 to 15.3% in 2013. Ownership is flat in Latin America for content media (1.7% in both 2004 and 2013); in all other content and platform market regions, it continues to decline (Table 32.7, Table 32.8). It is falling fastest in the Middle East for both content (20.2% to 14.3%) and platforms (34.2% to 21.4%). It is highest in countries where public incumbents, usually in platform industries (wireline, wireless, ISPs, multichannel), control the national cable infrastructure. China, of course, is the largest market with public ownership of all media at 79.2% and of that, 100% in platforms.[5]

Table 32-7. Public Ownership (Content Media): Region

	2004/05	2011 or Most Recent
BRICS	37.8%	31.2%
Europe	16.2%	15.4%
Middle East	20.2%	14.3%
Asia-Pacific	15.2%	12.8%
North America	5.1%	4.7%
Latin America	5.0%	4.6%

Table 32-8. Public Ownership (Platform Media): Region

	2004/05	2011 or Most Recent
BRICS	44.0%	35.5%
Middle East	34.2%	21.4%
Asia-Pacific	10.2%	9.3%
Europe	11.7%	9.2%
North America	0.3%	0.3%
Latin America	0.0%	0.0%

p. 1040 Public ownership in content media is highest in China (79.2%), Egypt (35.5%). In Russia (36.4%), and South Korea (31.6%). In Russia and South Korea this is due to state-owned broadcasters, while in Egypt it is a combination of public broadcasting and state control of the main daily newspapers. Underfunding of public broadcasting in the United States (1% in 2013) and Latin America (4.6% regionally) accounts for their tiny numbers.

Several European countries have high public ownership rates, mainly because of telecom and broadcasting. But EU governments do not directly control broadcast TV and radio companies such as the BBC (UK), RTÉ (Ireland), Radio France, or ARD and ZDF (Germany). State ownership is very high in Egypt, South Korea, Taiwan, India, China, and Russia because there, governments directly administer content and platform media companies.

China, not surprisingly for a People's Republic, holds the largest percentage of public-owned market share. China's state ownership of media is the highest by far, as the state effectively holds complete monopolies in all industries except for film, magazines, online news, and search engines. In almost every media industry, the top four companies are owned by a government agency, either at the federal or provincial level. Major public companies in China are China Mobile, China Central Television, Shanghai Media Group, China Film Group, Hunan Media Group, and China Telecom.

The Egyptian government dominates its country's television broadcasting and wireline telecom industries, contributing to its 48.3% market share nationally. Likewise, it formerly held a complete majority over newspaper publishing (94.5%), but saw its market share decline to 72.2% after liberalizing the industry. Other industries in which the Egyptian government is active include radio broadcasting, video channels, ISPs, and wireless telecom. However, ERTU (the state-owned electronic media firm) and the state-owned Nile Television Network (NTN) lost market shares to privately owned video channels like Al Jazeera once these were given permission to enter the market.

The Russian government held a 28.9% market share in all media, down from 40.5% in 2004. The main industries it operates in are broadcast television and wireline telecommunications. The large drop in Russia's market share can be attributed to the large increase in revenues for wireless telecom companies that the state does not control directly. Unlike in China and Egypt, in Russia significant state ownership of content involves holding controlling stakes in corporations through a complex system of holding companies.

In 2004, India had the third largest percentage of public ownership for all media after China and Egypt at 44.2%, due to the monopoly on news content and wireline that public companies have held. However, since then this number has decreased quite dramatically to 22.7%, the result of greater competition emerging in the radio and wireless industries. Privatization gave customers more options, and consumers switched away from the state monopolists in these sectors, the state telecom Bharat Sanchar Nigam and the public
p. 1041 broadcaster Prasar ↳ Bharati. Platform public ownership halved from 50.5% in 2004 to 25.4% in 2013.

The countries with the lowest percentage of publicly owned market share are Argentina, Brazil, Mexico, and the United States, all of which had less than 1% of their national media markets held by state-owned media groups (for platforms, it is less than 1% in these countries). In Israel, the state and parastatal share dropped dramatically, from one of the world's highest to one of the lowest, with a major step being the privatization of the telecom incumbent Bezeq. What separates the United States from most other countries in public ownership is that it virtually never had a major state-owned telecom incumbent. AT&T effectively filled that role as a private company for several decades, until its breakup in 1984.

Bibliography

For the sources mentioned in this chapter, see the general bibliography at the end of this book.

Notes

1. Revenues are listed in US dollars and at the prevailing exchange rate in the years cited.
2. Due to different data availabilities in the various countries, the most recent available numbers vary. For some countries and industries, they might go back to 2011. For others, 2013 data are available.

3. For book publishing, with its large number of small firms, the cut-off is *N* (>2%) instead of the standard *N* (>1%) used for the other industries.
4. In this section, there is no need to distinguish between China's "integrated" and "segmented" ownership indices because they are the same, so China is rendered as just "China."
5. In this section, there is no need to distinguish between China's averaged and state ownership indices because they are the same.