

MAGNA INFLATION REPORT - MAY 2021 MARKET CONDITIONS

2021 WILL BRING A RESURGENCE AFTER MEDIA PRICING SLOWED TO THE POINT OF DEFLATION IN MANY MARKETS IN 2020

INFLATION TO RETURN AS DEMAND RECOVERS...

Globally, market conditions continue to improve as the vaccines roll out and economies re-open following months of lockdowns and recession in the spring and fall of 2020. The COVID pandemic triggered a global recession in 2020, with economic activity (real GDP) contracting by -3.3%. A significant rebound is expected in 2021, with overall growth of +6% (April IMF forecast up from +5.2% in previous forecasts), with some large markets growing even faster: India (+12.5%), China (+8.4%), and the US (+6.4%).

While there is still a **high level of uncertainty** on the media market scenarios and pricing, improved macroeconomic fundamentals, along with the gradual return to normal consumption patterns and business conditions, will support a resurgence in marketing activity and advertising demand. The return to pre-COVID lifestyles may also cause a **decline in media supply** where COVID lockdowns had triggered an increase in 2020, typically TV.

Increased demand and declining supply will drive free television CPM pricing to high single digit levels. We anticipate an average inflation rate to rise by +8% in 2021, compared to +6% in our previous report (published Oct. '20). Pay TV (+5%), instream video (+8%), OOH (+3%), and digital display (+4%) are also all expected to see some degree of CPM inflation return this year.

Some of the most significant inflationary rebounds will be seen in markets where pricing is the most elastic and responsive to supply and demand, and displayed strong deflation in 2020. The UK is typical of fast, strong market adjustments, and MAGNA anticipates free TV costs to grow by +14% in 2021 following a decline of -14% in 2020. Sweden may see free TV CPMs rise by +15% after a decrease of -12% last year.

...FOLLOWING THE SLOWDOWN IN 2020

In the second quarter of 2020, the emerging global COVID crisis triggered a **dramatic change in media market conditions**: demand collapsed while television consumption increased, triggering deflation in most markets. Television consumption patterns largely returned to normal in the second half of the year, while demand returned from key categories looking to connect with consumers and reclaim market share (ex. tech, food, telecom). This supported a price stabilization—or a return to inflation—in the latter half of the year, moderating the steep declines seen in the spring. On an annual global basis, **free TV inflation slowed to just +0.2%**, below our previous estimate of +1.2% and well below the average of +6% to +8% seen pre-COVID.

Some media markets, particularly the UK, are highly sensitive and elastic to short-term demand. There, the steep decline in demand in the second quarter of last year had an immediate impact on pricing and ad spend, triggering deflation on a full year basis. Overall, 40% of markets monitored by MAGNA saw deflationary television CPMs in 2020, including major markets like Australia, France, India, and Japan.

In some other media markets, particularly the US, television advertisers and vendors operate through annual spending commitments or "upfront" buying mechanisms, which typically feature pre-set CPM costs and strict cancellation policies. The full effect of lower demand is therefore more limited or delayed in these markets, as the CPM prices have already been negotiated. For this reason, in some markets we did see stability or low-digit growth for TV costs on a full-year basis in 2020.

A variety of local mechanisms also contributed to the somewhat paradoxical outcome of positive television inflation in a year marred by economic recession and a decrease in upper funnel marketing activity. In some cases, such as in Spain and the Netherlands, industries with traditionally high ad rates (ex. tech, finance) recovered and resumed spending faster than others in the second half of 2020, driving up average cross-industry CPMs. The increase in supply (viewers) was often contained to news channels or public channels with no/limited advertising, while primetime was more insulated from swings in supply. Some TV broadcasters (and other media vendors) opted not to fill up commercial breaks or fill them with self promotion, rather than give away discounts on unit costs or CPM costs, so that a reduction in commercial load offset the growth in ratings, to stabilize supply and maintain pricing.

TV INFLATION SUMMARY (NET CPM FY % CHANGE)									
MARKETS	2020	2020 PREV	2021	2021 PREV					
Australia	-4	-2	+11	+8					
Canada	+6	+6	+6	+9					
China	+8	+8	+8	+8					
France	-5	+1	+3	+7					
Germany	+5	+2	+6	+5					
India (Pay TV)	-8	-11	+12	+7					
Italy	-7	-13	+8	+9					
Japan	-15	-9	+10	+3					
Netherlands	+9	+10	+8	+9					
Spain	+3	+3	+6	+6					
South Korea	-4	+2	+8	+3					
UK	-14	-19	+14	+11					
US	+7	+7	+8	+5					
AVERAGE	+0.2	+1.2	+8.2	+5.6					

"PREV": Previous MAGNA estimate/forecast (Published October 2020)

ABOUT THE MAGNA INFLATION REPORT

This report was published in May 2021 based on a global survey of approx. 50 markets worldwide, including all major markets, conducted over March/May 2021. It updates the previous estimates and forecasts published in September 2020. The detailed results in excel format can be downloaded by Mediabrands colleagues and MAGNA subscribers from our "Atlas" website: atlas.magnaglobal.com. See p15 for full methodology notes.

MAGNA INFLATION REPORT – MAY 2021 KEY FINDINGS

DEMAND RETURNED IN 4Q20 AND EARLY 2021

2020: INFLATION COOLED ACROSS FORMATS

Nearly 40% of all markets reported some level of free TV CPM deflation in 2020, while 15% saw flat rates and 35% saw mild inflation on a full-year basis. The deflation rates ranged from a relatively mild -1% (Portugal) to double-digit declines (Greece, Singapore, UK, etc.). Inflation continued in China, the US and the Netherlands. Stronger-than-expected pricing in the second half of 2020 led our full-year free TV inflation estimate to be revised slightly down to a global average of +0.2%, from +1.2% in the previous forecast.

Most other media formats experienced flat or decreasing pricing: print and radio CPMs decreased by an average -2%. Most media and markets saw deflation in the second quarter of 2020, when the COVID crisis was at its peak. Low volumes in 2Q, moderate inflation in 1Q, and a surge in demand in 4Q all contributed to the flat or low-single-digit inflation seen when averaging all quarters for the annual trend.

2021: RECOVERY BRINGS PRICING REBOUND

The global economy is expected to see a significant rebound this year, according to the latest forecast from the IMF (MAY 2021 WRO). Delayed consumption and investment, plus a low comp (-3% in 2020), support **robust global real GDP growth of +6%**, up from +5% anticipated in October 2020.

Marketing and advertising activity will naturally stabilize and resume growth as businesses and consumers recover, and indeed already has in some sectors, ex. tech and personal care. The return of **normal sports schedules** and events that were postponed to 2021 (Tokyo Olympics, UEFA Euro, World Expo) may also unlock marketing budgets in sports-centric industry verticals (e.g. automotive, beverages).

Television will see a return to the pattern of high-single-digit inflation. MAGNA anticipates free TV CPM inflation of +8.2%, in line with 2019 (+8.4%), and pay TV inflation of +5%. For some other linear formats, like print and radio, inflation rates will generally remain slightly below pre-COVID levels. Many local businesses, independent restaurants, and small retailers may never recover from the lockdowns in 2020, which may permanently hurt demand for local media formats.

IN THE US...

In 2020, calendar-year CPM inflation averaged +6.5% for broadcast networks, and +3.5% for cable networks, down from around +10% for all national TV segments in previous years. 2021 inflation estimates have been revised to +8% for broadcast TV and +4% for cable, up from +5% and +1% respectively. See detailed US analysis on page 6.

MEDIA INFLATION (YOY NET CPM): GLOBAL AVERAGES							
	2020	2021					
Free (Broadcast) TV	+0.2	+8					
Pay/Multichannel TV	+1	+5					
Print	-2	+0.6					
Radio	-2	+0.1					
Online Display	+1	+4					
Instream Video	+5	+8					
Outstream Video	-0.3	+6					

GLOBAL MEDIA INFLATION: CY 2020 (YOY NET CPM)							
	NEW	PREVIOUS					
Broadcast TV	+0.2	+1					
Cable TV	+1	+1					
Print	-2	-1					
Radio	-2	-1					
Online Display	+1	+2					
Instream Video	+5	+5					
Outstream Video	-0.3	-3					

US MEDIA INFLATION (YOY NET CPM)									
2020 2021									
Broadcast TV*	+7	+8							
Cable TV*	+4	+4							
Print	+2	+1							
Radio	-3	-4							
Instream Video	+4	+4							

^{*} Average for all primetime TV sales (upfront and scatter market), calendar year.

MAGNA INFLATION REPORT – MAY 2021 **KEY MARKETS**

UNCERTAINTY LINGERS AFTER TUMULTOUS YEAR

On a global basis, free TV CPMs generally saw moderate deflation in 2020, +0.2%, slightly below our fall estimate of flat (+1.2%). Different market conditions and experiences with lockdown and vaccine rollouts have supported vastly different outcomes from market to market, however, with some television vendors able to eke out modest inflation (ex. Germany, Netherlands) while others saw steep deflation (ex. Japan, UK). Inflation is expected to return this year, with free TV CPMs rising by an average of +8.2% on a global basis, up from our previous forecast of +5.6%. Pay/multichannel television prices were also flat (+1.4%) and are expected to see a recovery of +5% this year, up from our previous estimate of +2%.

Print and radio will take longer to rebound, with CPMs flat this year following the deflation experienced in 2020.

AUSTRALIA

Almost all media formats saw some level of deflation in 2020: television -4% (A18-54, prime), radio -13%, print -11%, and online display -5%. Almost all formats are also expected to see a rebound in 2021, ranging from double-digit inflation (free TV, +11%) to inflation in the mid-single digits (instream video, newspapers +5%). Only magazines are likely to see flat CPMs this year, as demand remains low and the sector is struggling to return to pre-pandemic levels.

Better than expected economic performance (real GDP was down -2.4% according to the April 2021 IMF report compared to -4.5% forecast in June 2020) supported a sharp rebound in television demand in the fourth quarter. This helped to moderate the steep decline seen in the second quarter, leading to full year deflation of -4% for free TV and -6% across pay TV channels. MAGNA anticipates that inflation will accelerate in 2021, +11% and +9% respectively, driven by strong demand from the retail sector as well as a return to normal audience habits. In 2022 and beyond we expect inflation will stabilize at around +8% per year for free TV and +6% for pay TV, in line with the pre-COVID trend.

CANADA

On a full-year basis, free TV inflation (prime, A25-54) averaged around +5.5% in 2020, with by returning demand in the second half balancing steep deflation in the second quarter. Radio and print pricing were flat, while in-stream video costs increased by +5%. Media buys in Canada, as in the US, are generally annualized, with CPM levels agreed upfront based on the volume of investment committed for the year. Because the Canadian media market is fairly concentrated, with three large media owners (CBC, Bell, Rogers) controlling the top television, radio, and print properties, top broadcasters kept cancellation policies in place during the early stages of the pandemic, which stabilized market volume and pricing in 2020 despite dwindling demand.

In 2021 real GDP is still expected to grow by around +5% in 2021, according to the latest IMF report (April 2021). If economic recovery materializes, MAGNA expects media inflation to accelerate across most media formats: free TV +6%, radio +3%, instream video +9%. Demand has already begun to return for most media format, particularly digital and television, which remains a key part of media strategy for many advertisers despite declining viewership.

GERMANY

Free TV CPM inflation slowed from nearly +10% in recent years to just +5% in 2020, German TV sales houses (RTL, P7S1, etc.) typically offer free additional commercial airtime (GRPs) as a form of discount, and in the second quarter many of these sales houses offered more free airtime than usual, due to the low demand. Advertisers in several key sectors—including tech, auto, and FMCG—returned in the second half of the year, supporting a return to inflationary pricing. Additionally, advertisers concentrated more than usual on *primetime* inventory, even as audiences returned to normal viewing habits after the first few weeks of lockdown, contributing to an increase in average CPM paid (since primetime pricing is structurally higher than other dayparts) on a full-year basis.

2021 FREE TV INFLATION KEY MARKET REVISIONS	OLD	NEW	CHANGE
CANADA	+9	+6	-3
FRANCE	+7	+3	-4
INDONESIA	+5	+10	+5
IRELAND	+12	+8	-4
JAPAN	+3	+10	+7
NORWAY	+12	+9	-3
SOUTH KOREA	+3	+8	+5
SWEDEN	+11	+15	+4
UNITED KINGDOM	+11	+14	+3
URUGUAY	+12	+7	-5
Global Average (excl. Argentina, Ukraine)	+6	+8	+2



MAGNA INFLATION REPORT – MAY 2021 KEY MARKETS

PRICING ACCELERATION EXPECTED IN 2021

GERMANY (con't)

We anticipate a slight acceleration in television inflation in 2021, supported by continued growth of economic activity (real GDP: +3.6%, in line with the Euro area average) as the vaccine rolls out and businesses continue to re-open. Pay TV (+5%), radio (+2%), and instream video (+2%) will also see inflationary pricing trends this year, while print (-1%) and static OOH (-1%) will remain stagnant in the short term.

INDIA

India has been hard-hit by the ongoing COVID outbreak, which peaked later than it did in much of Europe and Asia—cases did not begin to rise substantially until the summer and fall of 2020—and continues to ravage the country as of May 2021. According to the latest IMF report, real GDP contracted by -8% in 2020, but economic activity is still expected to see a surge this year, rising by +12.5%.

In this context, advertising and marketing activity slowed considerably last year and is likely to remain sluggish for much of 2021. Advertising sales houses in the pay/multichannel TV segment (i.e. all Indian channels except those owned by public broadcaster Doordarshan, which accounts for barely 6% of the TV ad market) suffered an average CPM deflation of -8% full year, with the steepest declines in the second and third quarters. Print (-14%) and radio (-12%) also experienced double-digit deflation, while OOH was flat (+2%). Meanwhile digital formats were able to eke out some inflation (+7% on average).

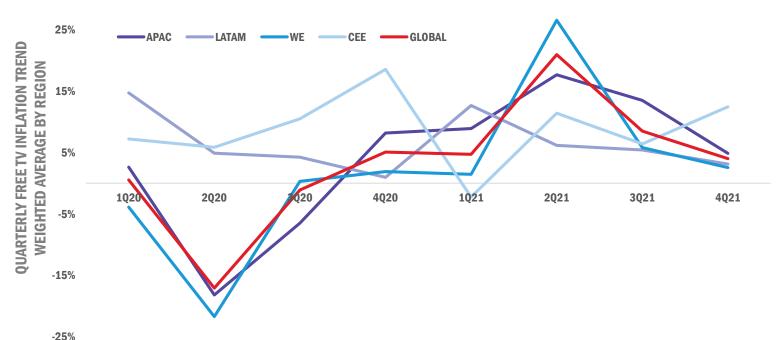
In 2021 we expect a rebound of +12% for commercial TV. Instream video (+15%) and OOH (+6%) will also see an acceleration. Print and radio inflation will remain depressed at least until 2022.

UNITED KINGDOM

The UK has one of the most liquid television markets in the world, with pricing adjustments taking place almost in real time based on supply and demand. The market responded quickly when demand collapsed in late March 2020 while supply (viewers) increased with people stuck and home, and CPMs dropped by nearly to -50% in the second quarter. Deflation persisted through the third quarter, until some stability returned with the holiday season in 4Q. All media formats, including digital (-14% instream video, -17% display), saw some level of deflation last year.

In 2021, the UK ad market may benefit from economic recovery, driven by an effective vaccination campaign, and the return of normal sports schedules plus the UEFA euro tournament with several British teams qualified (England, Scotland, Wales) and top marches on UK soil. According to the most recent IMF forecast (April 2021), UK GDP will grow by +5% this year, following a decline of -10% in 2020.

Television pricing may rebound faster than most: our free TV inflation forecasts have been revised up from +11% to +14% for the full year. All other media formats, with the exception of print (flat), are also anticipated to see inflation return this year: radio +7%, OOH +3%, instream video and digital display +14%.



MAGNA INFLATION REPORT – MAY 2021 US MARKET: TV INFLATION SLOWS

AFTER SLOWING DOWN IN 2020, LINEAR NATIONAL TV INFLATION WILL RE-ACCELERATE IN 2021/22 AS DEMAND RECOVERS AND SUPPLY CONTINUES TO SHRINK

NATIONAL TV

The COVID recession ushered in a slowdown for linear TV CPMs in 2020 after many years of continued high inflation (around +10% per year for prime), driven by persistent demand and declining supply. This trend was reversed in the early stages of the pandemic, as lockdowns swept across most of the US. Television viewership increased for the first time in several years during the first weeks of the lockdowns, with all day (18+) viewing up +1% in March (after two quarters of declines of around -8%) and +10% in April. The bump proved to be short-lived, however, and by June viewership returned to the normal pattern of the decline. On the demand side, key sectors like auto, finance, restaurants, movies, and CPG plummeted during the first half of the year, though many advertisers did return in the second half.

The US television market operates mainly through an upfront buying mechanism: approximately two thirds of TV inventory is traded upfront. Thus through this system the CPM inflation rates for 1Q-3Q 2020 had already been negotiated pre-COVID in the spring and summer of 2019 (broadcast year upfront starting 4Q19) or fall 2019 (calendar year upfront), when demand was strong and supply reliably shrinking. That economic environment enabled TV vendors to make deals including double-digit inflation on most day parts. Upfront spending commitments can be partly cancelled (from 1Q), but this generally requires significant notice, even during a crisis. Some brands were able to cancel most or all of their 2Q commitments, freeing inventory for the scatter market, while most reallocated to 3Q or 4Q.

The continued decline of supply and the inertia of volumes and costs in the upfront system caused CPMs to remain more resilient than in almost every other market in 2020.

Overall, on a full year basis the combined pricing trend (upfront

and scatter) for 2020 was **+6.5% for broadcast TV** (prime, in line with previous forecast) and **+3.5% for cable**.

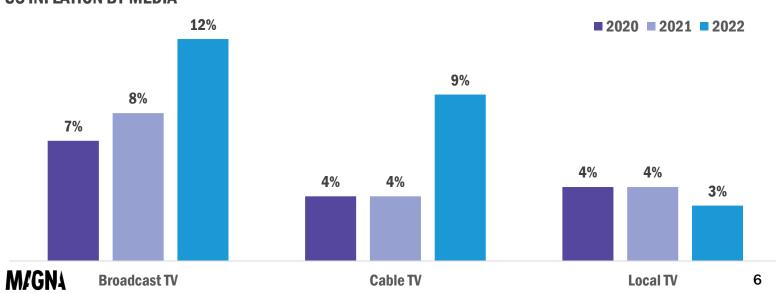
In 2021, economic recovery (real GDP: +6.4%), will lead to a reacceleration in media pricing inflation. TV CPM inflation will continue in 2021, supported by a return of demand from key industry verticals as well as continued steep viewing declines (ratings were down approx. -15% in 1Q21 already). Broadcast TV CPM inflation will accelerate, +8%, while cable inflation will remain around +4%. The return of domestic sports, and the Tokyo Olympics on NBC, will also play a role in boosting demand, particularly in sectors that historically over-index on sports, like finance, entertainment, and beverages.

LOCAL TV

During election years, like 2020, a surge in political advertising typically creates an inventory shortage for other verticals and inflation in 3Q and 4Q, especially in "battleground" markets. As a result, we typically expect double-digit inflation in election years (particularly in September-October). Last year, however, the impact of COVID lockdowns on local businesses (car dealers, retailers, restaurants etc.), who account for a large portion of local TV spend, countered the overall impact from political advertising. Many local businesses were disproportionately affected by the COVID lockdown, and some may not ever recover enough to resume TV. Therefore, on an average annual nationwide basis, local TV inflation was just +4%, compared to +9% in the previous presidential cycle of 2016.

Local television inflation is expected to continue to stagnate in 2021 (+4%), with the absence of political spend and many local businesses still struggling to get back on their feet, and in 2022, +3%.

US INFLATION BY MEDIA



MAGNA INFLATION REPORT – MAY 2021 US MARKET: PRINT, RADIO STAGNANT

WEAK DEMAND CONTRIBUTES SLOW RECOVERY FOR PRINT, RADIO

INSTREAM VIDEO

Net CPM inflation for premium instream video players (Hulu, Google Preferred, FEPs, etc.) slowed to +2% in 2020, following several years of mid-single-digit inflation around +5%. The surge in digital consumption following the COVID lockdowns and shift to remote work/learning that has persisted through 2021, in combination with weaker demand in parts of 2020, contributed to the slowdown. MAGNA anticipates costs will accelerate in 2021, with average inflation of +4%.

RADIO

Local radio advertisers, most of them local businesses, were severely impacted by the COVID crisis, and low demand led to decline in ad spend by more than 20%. However, because audience supply was down by a similar amount, due to the collapse in car commuting and listening, CPMs were nearly flat. On a full-year basis, local radio CPMs (A25-54, morning drive) recorded a deflation of -3%. This stagnation in pricing is likely to continue over the next few years, as demand remains low from some key sectors (local retail).

Streaming audio (local) also saw some deflation last year, though the effect was more moderate: average CPMs were down just -1%. Prices are expected to remain fairly stable this year (flat) and next (+1%).

PRINT

Print CPM costs were, on average, stable in 2020 (+2%), with magazines experiencing slightly higher inflation (+3%) while newspaper costs were flat (+1%). For print properties, the long-term erosion of demand and spending generally translates into volume decline (ad insertions and pages) rather than lower CPMs,

and that same mechanism stabilized pricing again during COVID.

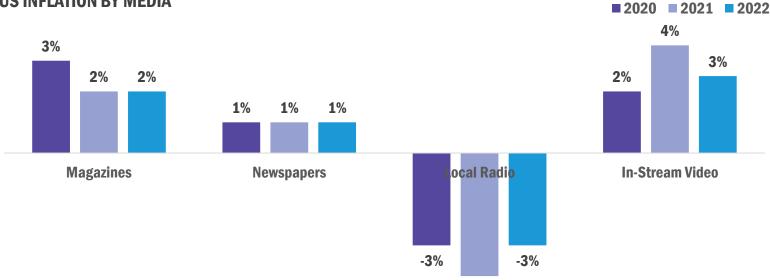
Newspapers typically struggle with weak demand from advertisers in key verticals, including retail and finance, as well as steep circulation declines (-10% per year). **Magazines** are also facing declining circulation (-5% per year), but have more reliable demand from personal care, beauty, luxury, and pharma brands.

OOH

After several years of stable inflation of around +2% to +5% per year, both static and digital OOH formats saw some level of deflation or stagnation in 2020. As brands wish to welcome back consumers returning to offices, gyms, airports, and public transportation, we anticipate a return to modest inflation (+1.5%) across place-based, transit, and street-level formats.



US INFLATION BY MEDIA



-4%

2020 INFLATION

	FREE TV	PAY TV	MAGS	NEWS	RADIO	STATIC 00H	ONLINE DISPLAY	INSTREAM VIDEO	CPI
Argentina	+41	+37	+36	+40	+42	+24	+40	+40	_
Australia	-4	-6	-12	-9	-13	-7	-5	-4	+1
Austria	-5	-	+6	+11	+13	+9	-1	-2	0
Belgium	+2	-	0	0	+2	+3	+3	-10	0
Bulgaria	+8	+10	0	0	+2	+2	+7	+10	+1
Canada	+6	+6	0	0	+1	-	+1	+5	+1
China	+8	-	+5	+2	+3	+3	+10	+15	+3
Colombia	-5	+5	0	0	+3	0	+5	+5	+4
Croatia	+10	+10	0	0	0	0	+7	+9	+1
Czech Republic	-4	-4	-20	-30	-15	+4	+6	+8	+2
Ecuador	+1	-	0	0	+1	0	+1	+1	0
France	-5	0	0	+4	-4	-2	+1	0	0
Germany	+5	+5	-2	0	+2	-1	-2	+2	0
Greece	-10	_	0	0	+1	0	-10	0	0
Hong Kong	+3	+2	+11	+7	+5	-5	+3	+7	+2
Hungary	+6	+6	-5	-5	-5	-5	+2	+3	+3
India	-72*	-8	-13	-15	-12	+2	+6	+8	+3
Indonesia	+4	+10	+2	-1	+5	-	+3	+3	+3
Ireland	+4	+5	-4	-2	-1	-7	+1	+10	0
Israel	-2	_	-4	-2	0	0	0	0	+2
Italy	-7	-	-11	-9	-4	-1	-4	-3	0
Japan	-15	_	-6	-13	-9	-8	+3	+15	0
Malaysia	+1	+5	0	+11	+5	0	+1	+4	0
Mexico	+9	+5	_	_	_	-	+7	+8	+3
Netherlands	+3	-	+2	+2	+3	+3	0	+4	0
New Zealand	-5	+2	-20	-10	-7	-15	-2	-1	+1
Norway	+3	-	+10	+10	0	+3	-11	-6	+2
Portugal	-1	-1	-2	-1	+2	-	-1	-1	0
Russia	-5	-5	0	0	-7	-5	-4	-5	+3
Serbia	+12	+12	+1	+1	+3	+4	+8	+10	+1
Singapore	-10	_	-12	-10	-8	-12	0	+7	0
South Africa	0	0	+21	+37	+1	0	+10	+5	+2
South Korea	-4	-11	+10	-14	+11	+5	+2	+3	0
Spain	+3	+4	+2	0	+3	+2	+1	+4	0
Sweden	-12	_	-11	0	-3	-8	-12	+3	0
Switzerland	-4	-	+5	0	+3	-2	0	0	0
Taiwan	+3	+5	-10	-10	-5	-10	+8	+30	+1
Ukraine	+22	-	+5	0	+15	+15	+17	+22	+5
United Kingdom	-14	-16	-5	-10	-4	-15	-17	-14	+1
United States	+7	+4	+3	+1	-3	-	+1	+2	+1
Uruguay	+11	+7	+7	+7	+7	+7	+16	+16	+9
Global	+0.2	+1	-1	-3	-2	-3	+1	+5	_



2021 INFLATION

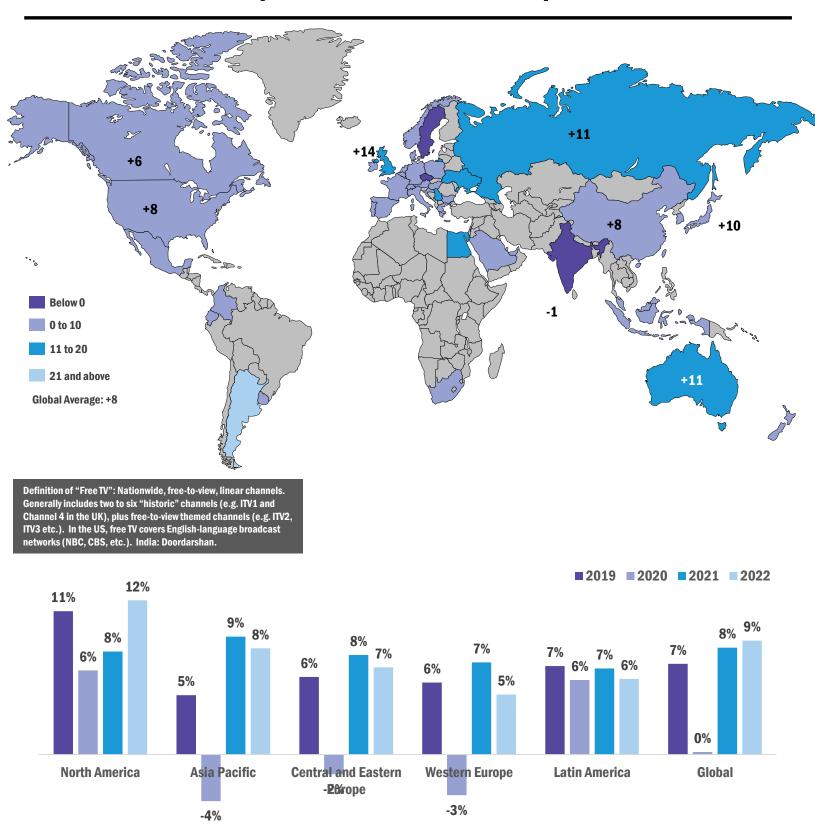
	FREE TV	PAY TV	MAGS	NEWS	RADIO	STATIC 00H	ONLINE DISPLAY	INSTREAM VIDEO	СРІ
Argentina	+50	+38	+30	+30	+40	_	+40	+40	_
Australia	+11	+9	0	+5	+8	+8	+2	+5	+2
Austria	+5	-	+5	+5	+3	+5	-1	+1	+2
Belgium	+3	_	+5	+2	+5	+5	+3	+5	+1
Bulgaria	+6	+8	0	0	+4	+4	+8	+10	+2
Canada	+6	+6	+1	+1	+3	-	+5	+9	+1
China	+8	-	+3	+2	+3	+10	+10	+15	+3
Colombia	+3	+7	+2	+2	+5	+5	+5	+5	+3
Croatia	+10	+8	0	0	+2	+2	+7	+9	+1
Czech Republic	-7	-7	-10	-15	-2	+1	+3	+8	+2
Ecuador	+2	-	0	0	+1	0	+2	+1	+1
France	+3	0	+1	+3	+2	+1	+4	0	+1
Germany	+6	+5	-1	-2	+2	-1	-2	+2	+1
Greece	+9	_	0	0	+1	+1	0	0	+1
Hong Kong	+5	+3	+3	+1	+2	0	+3	+10	+3
Hungary	+8	+8	0	0	0	0	+2	+3	+3
India	-1*	+12	-6	-6	-1	+6	+7	+15	+4
Indonesia	+10	+5	-2	-1	+6	-	+3	+3	+3
Ireland	+8	+11	-2	-1	0	-4	+1	+8	+2
Israel	+2	_	-3	-5	0	0	0	0	+2
Italy	+8	-	-2	-2	+2	-1	+3	+3	+1
Japan	+10	_	+1	+1	+6	-4	+3	+10	0
Malaysia	+7	+9	0	+11	+6	0	+5	+8	+3
Mexico	+8	+7	_	_	_	-	+7	+9	+3
Netherlands	+6	-	+2	+2	+5	+4	+1	+3	+1
New Zealand	+8	+8	-9	-5	+2	0	+1	+8	+1
Norway	+9	-	+10	+10	0	+2	+14	+7	+2
Portugal	+2	+2	+2	+2	+2	_	+2	+2	+1
Russia	+11	+10	0	0	+2	+2	+5	+5	+3
Serbia	+12	+14	+1	+1	+3	+3	+10	+10	+2
Singapore	+12	_	+6	+12	+7	+12	+6	+12	+1
South Africa	+8	+5	+20	+15	+5	0	+5	+5	+3
South Korea	+8	+9	+5	+6	+1	-5	+2	+4	0
Spain	+7	+7	+3	+1	+5	+5	+2	+7	+1
Sweden	+15	_	0	0	+11	+6	0	+5	+2
Switzerland	+1	-	+1	+1	+1	+1	+2	+3	+1
Taiwan	+6	+8	+10	+10	+10	+10	+10	+30	+2
Ukraine	+18	-	+4	0	+15	-	+17	+21	+7
United Kingdom	+14	+16	0	0	+7	+2	+14	+14	+2
United States	+8	+4	+2	+1	-4	-	+2	+4	+2
Uruguay	+7	+9	+8	+8	+8	-	+7	+7	+8
Global	+8	+5	+1	0	0	+2	+4	+8	-

2022 INFLATION

Argentina Australia Austria Belgium Bulgaria Canada China Colombia Croatia	+42 +8 +6 +2 +9 +8	+35 +6 - - +9	+37 -3 +6 0	+41 +4 +6	+43 +4	00H -	DISPLAY +41	VIDE0 +41	
Australia Austria Belgium Bulgaria Canada China Colombia	+8 +6 +2 +9 +8	+6 - - +9	- 3 +6	+4			+41	T41	
Austria Belgium Bulgaria Canada China Colombia	+6 +2 +9 +8	- - +9	+6		+4	. –	0		-
Belgium Bulgaria Canada China Colombia	+2 +9 +8	- +9		+6	. 0	+5	0	+6	+2
Bulgaria Canada China Colombia	+9 +8	+9	0	_	+3	+4	-1	+2	+2
Canada China Colombia	+8			0	+3	+5	-	-	+1
China Colombia			0	0	+4	+6	+12	+10	+2
Colombia	Τ0	+8	+1	+1	+3	-	+5	+9	+2
		-	+3	+2	+3	+10	+10	+15	+3
Cuantin	+3	+5	+3	+3	+7	+7	+5	+5	+3
Croatia	+10	+10	+1	+1	+2	+2	+5	+10	+1
Czech Republic	+5	+5	+5	-10	+10	+1	+2	+5	+2
Ecuador	+2	_	0	0	+1	+1	+2	+1	+2
France	-	+1	+1	+3	+3	+2	+4	+3	+1
Germany	-	-	-	-	-	-	-	-	+1
Greece	+9	_	0	0	+1	+2	+3	+3	+1
Hong Kong	+4	+1	+1	0	+2	0	+3	+12	+3
Hungary	+10	+10	+2	+2	+2	+2	+3	+4	+3
India	+6	+9	-3	+2	+3	+10	+6	+12	+4
Indonesia	+5	+6	-2	-1	+6	_	+5	+5	+3
Ireland	+7	+8	0	0	+2	0	+1	+8	+2
Israel	0	_	_	=	_	_	_	_	+2
Italy	+3	_	-5	-5	+2	+1	+3	+3	+1
Japan	+10	_	+1	+1	+6	-1	+1	+5	+1
Malaysia	+7	+8	0	+11	+7	+5	+5	+8	+2
Mexico	+7	+3	_	-	_	_	+7	+8	+3
Netherlands	+6		+2	+2	+5	+4	+1	+3	+1
New Zealand	+6	+6	0	-2	+2	0	+2	+10	+1
		70							
Norway	+6	_	+8	+8	+2	+3	+6	+5	+2
Portugal	-	_	_	-	-	-	_	-	+1
Russia	-	-	-	-	-	_	-	-	+3
Serbia	+13	+14	+1	+2	+4	+5	+10	+10	+2
Singapore	+9	-	+3	+12	+4	+8	+6	+16	+1
South Africa	+5	+7	+15	+10	+5	+2	+5	+5	+4
South Korea	+2	+7	+5	+6	+1	0	+2	+4	+1
Spain	+6	+6	+2	+1	+5	+5	+2	+6	+1
Sweden	-	-	+1	+1	-	-	-	-	+2
Switzerland	+1	-	+4	+3	+1	0	+2	+3	0
Taiwan	+6	+8	+10	+10	+10	+10	+5	+30	+1
Ukraine	+20	-	+5	+1	+15	-	+22	+25	+6
United Kingdom	+5	+4	-1	-1	+3	+2	+1	+6	+2
United States	+12	+9	+2	+1	-3	-	+1	+3	+2
Uruguay	+7	+7	+7	+7	+7	_	+5	+5	+7
Global	+9	+9	+2	+2	0	+4	+3	+7	_

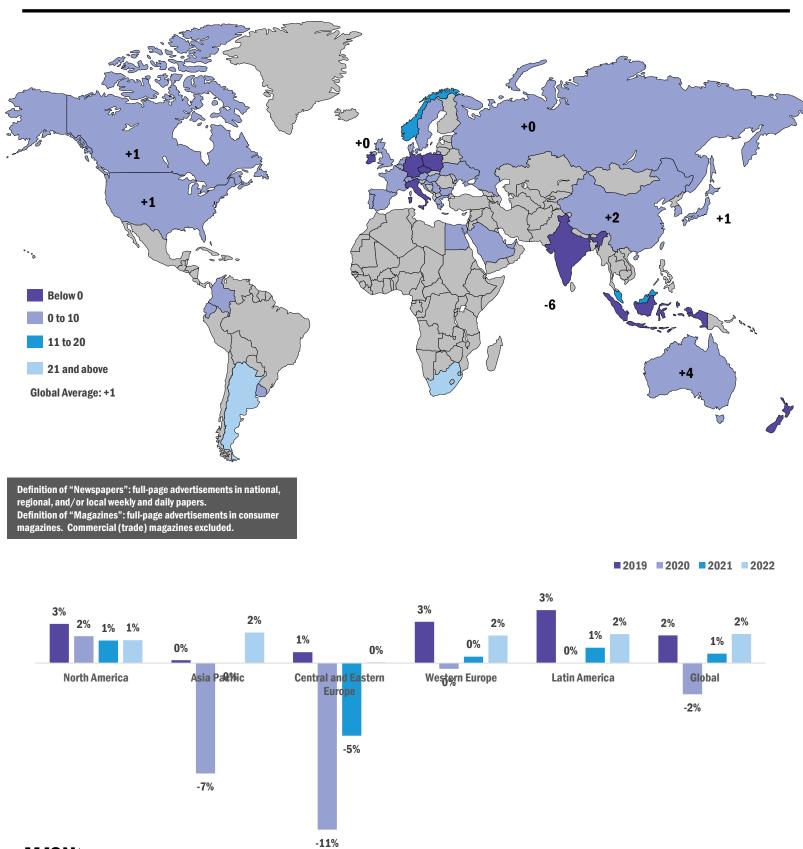
FREETV

CPM INFLATION (2021 EXPECTATION)



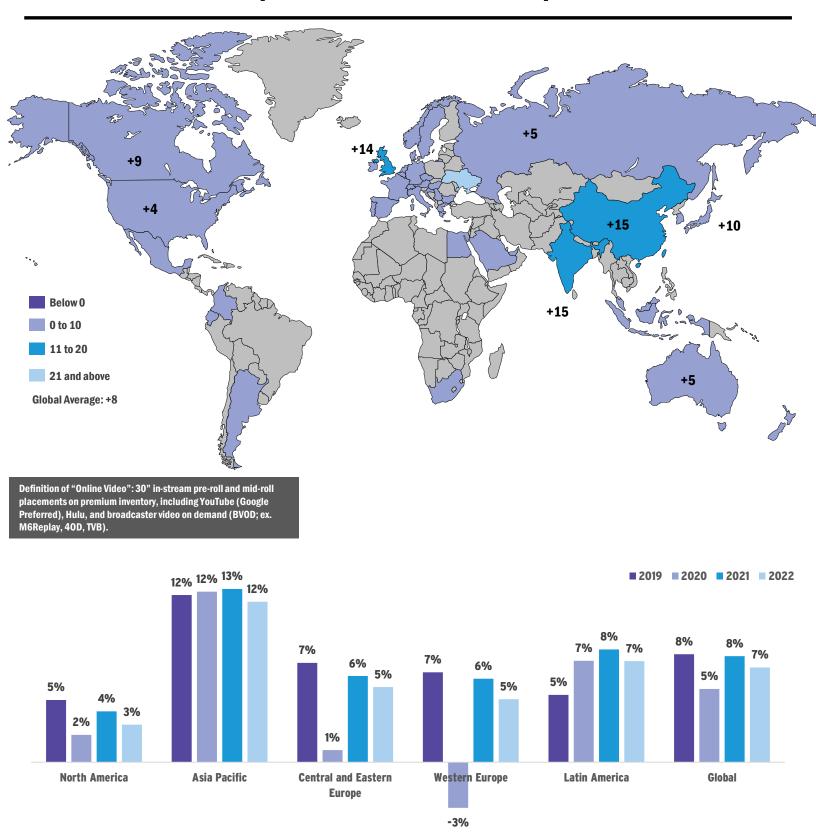


CPM INFLATION (2021 EXPECTATION)



ONLINE VIDEO

CPM INFLATION (2021 EXPECTATION)

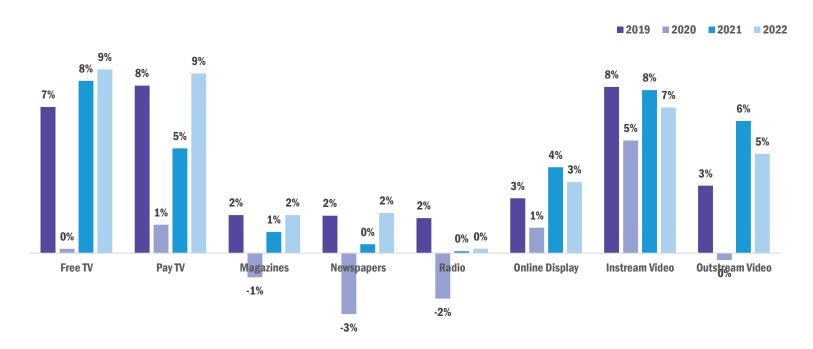


DATA APPENDIX

2020 Inflation Actuals	Eve a TV	Dev.TV	Martalinas	Newspanara	Dadia	Online	Instream	Outstream
Region	Free TV	Pay TV	Magazines	Newspapers	Radio	Display	Video	Video
North America (incl. up to 2 markets)	+6	+4	+3	+1	-3	+1	+2	
Asia Pacific (12)	-4	-7	-4	-10	-3	+6	+12	+3
Central and Eastern Europe (9)	-2	+3	-11	-16	-4	+5	+8	+1
Western Europe (12)	-3	-11	-1	0	0	-6	-3	-5
Latin America (8)	+6	+5	0	0	+3	+6	+7	+9
World (50)	+0.2	+1	-1	-3	-2	+1	+5	0

2021 Inflation Forecast	F 77/	DT/		N	D - 4! -	Online	Instream	Outstream
Region	Free TV	Pay TV	Magazines	Newspapers	Radio	Display	Video	Video
North America (incl. up to 2 markets)	+8	+4	+2	+1	-4	+2	+4	
Asia Pacific (12)	+9	+10	+1	0	+4	+7	+13	+7
Central and Eastern Europe (9)	+8	+5	-6	-8	+1	+3	+8	0
Western Europe (12)	+7	+13	0	+1	+4	+4	+6	+6
Latin America (8)	+7	+7	+1	0	+5	+6	+8	+10
World (50)	+8	+5	+1	0	0	+4	+8	+6

GLOBAL AVERAGE INFLATION BY MEDIA

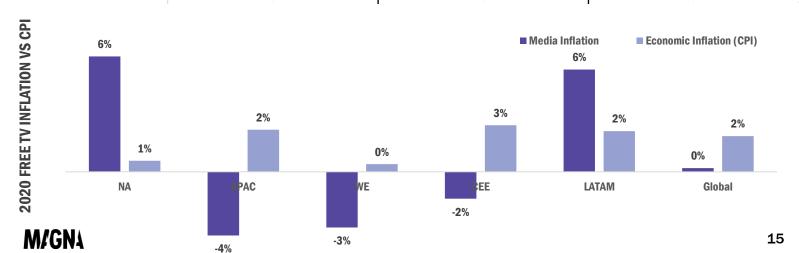


DATA APPENDIX

TV INFLATION BY DEMO FOR KEY MARKETS								
2020	A18-34	A18-49	A50+					
Australia	-1	-4	-10					
Austria	-4	-	-11					
Bulgaria	+13	+8	+5					
Germany	+5	+4	0					
Greece	-9	-10	-11					
Hong Kong	+2	-	+3					
Indonesia	+4	+4	+4					
Ireland	+13	-	-					
Japan	-17	-1 5	-16					
Malaysia	+2	+1	+2					
Mexico	+11	+9	+1					
Netherlands	+8	+6	+2					
New Zealand	+7	-3	-					
Norway	+27	+13	-7					
Singapore	-13	-10	-7					
Spain	+6	+6	+2					
Switzerland	-5	-4	-7					
Taiwan	+9	-	+4					
United Kingdom	-3	-6	-15					
Uruguay	+10	+14	+10					

TV INFLATION BY DEMO FOR KEY MARKETS									
2021	A18-34	A18-49	A50+						
Australia	+13	+11	+7						
Austria	+17		-2						
Bulgaria	+9	+6	+3						
Germany	+6	+4	+1						
Greece	+8	+10	+9						
Hong Kong	+7	-	+3						
Indonesia	+10	+10	+10						
Ireland	+15	-							
Japan	+12	+10	+2						
Malaysia	+9	+7	+5						
Mexico	+10	+8	+2						
Netherlands	+12	_	+6						
New Zealand	+15	+10							
Norway	+21	+15	+6						
Singapore	+12	+15	+12						
Spain	+10	+7	+5						
Switzerland	+1	+1	-2						
Taiwan	+13	-	+5						
United Kingdom	+20	+17	+10						
Uruguay	+3	+5	+7						

FTV INFLATION VS CPI	2020 Inflation	2020 CPI	2021 INFLATION	2021 CPI	2022 INFLATION	2022 CPI
North America	+6	+1	+8	+2	+12	+2
Asia Pacific	-4	+2	+9	+3	+8	+3
Western Europe	-3	0	+7	+1	+5	+1
Central and Eastern Europe	-2	+3	+8	+3	+7	+3
Latin America	+6	+2	+7	+3	+6	+3
Global	+0.2	+2	+8	+2	+9	+2



DATA APPENDIX

FOCUS ON US LOCAL MEDIA MARKET							
	2020	2021	2022				
Linear Local Radio	-3	-4	-3				
Linear Network Radio	0	+3	+1				
Streaming Local Radio	-1	0	+1				
Streaming Network Radio	0	+4	+2				
Linear Local TV	+4	+4	+5				
Local Digital Video	0	+6	+5				

METHODOLOGY

MAGNA's INFLATION REPORTS are updated and published twice a year (Spring, Fall).

This particular report was published in May 2021 based on a global survey conducted by Michelle Bovée, Associate Director at MAGNA USA in New York. It updates the previous report published in September 2020. The **detailed results**, in excel format, can be downloaded by Mediabrands colleagues and MAGNA subscribers from our "Atlas" website: atlas.magnaglobal.com.

MAGNA is tracking and forecasting media costs trends in approx. 50 markets worldwide including all major markets.

This report is based on data collection through a network of 200 local experts, mostly media-buyers and researchers. Local experts from Mediabrands agencies or partners supply estimated Rate-of-Change (ROC) for 8 media categories: Free TV, Pay/Multichannel TV, Newspapers, Magazines, OOH, Radio, and Online Display (Banners) and Online Video - for the current year (2020) and the next three (2021-2024). In the US, "free TV" is defined by English-speaking broadcast networks' national ads and "pay TV" is defined by national ads on cable networks. "Online video" is defined as premium in-stream ads, "online display" is premium banner ads, and "OOH" encompasses both digital and static ads.

MAGNA analysts convert local inflation estimates into a standardized rate of change of NET costs-per-thousand (CPM/CPT) year-over-year (e.g. NOT ratecard inflation, not CGRP or cost per page), so that cost trends are comparable across markets and across media types.

For each media category, local experts provide an estimated average for net CPM inflation observed on a given day-part and for a designated demographic target (usually 18-49 but that varies with markets and media type - the metadata is clarified in the dataset) throughout the year for all client categories. What local experts are asked to provide is *not* the inflation that they may be experiencing or anticipating in their own buying activity, but what they believe the market as a whole is experiencing, averaging all brands and verticals, all media properties in each media type, and all 12 months of the calendar year.

IMPORTANT: The estimated averages for % of change between average net CPMs in 2020 and 2019 encompass all brands, all agencies, all year and all buying methods (upfront, scatter). Pricing trends for specific campaigns or specific brands can significantly deviate from averages. Because of the averaging approach, the actual cost inflation experienced on a specific campaign, by a specific brand, on a specific target or season or property, may be VERY different from the calendar year averages estimated by MAGNA USA in this report.

ABOUT MAGNA

MAGNA is the centralized Mediabrands resource that provides media marketplace intelligence and negotiation prowess for agency teams and clients. MAGNA infuses the organization with knowledge that empowers better decision-making, including insights, forecasts, and strategic relationships.

MAGNA Intelligence is the leading source for insights and forecasts on the global advertising market place and media economy, since 1950. Produced by a New York-based analyst team supported by an international research network. Topics/metrics include <u>net</u> ad spend trends, ad sales, ad costs, media consumption and ad tech (programmatic). Data and forecasts for 70 countries and 15+ media categories. Deliverables include reports, online datasets, analysts briefings.

Access to reports, data and analysts is free for Mediabrands employees and available to third party companies for an annual fee. Watch our tutorial video here.

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