Global $\mid$ Economics $\mid$ Special Rep
Mapping the World's Prices 2017

This is the sixth DB annual survey of global prices. It is a compilation of prices from various countries and cities around the world. We continue to add new cities, refine our methodology and while it's impossible to exactly match products and services around the world we try to ensure as much uniformity as possible and then convert prices back to USD.

We've added a few new series this year. In particular average after tax salaries, average 2-bed apartment rental costs and finally a quality of life index that is the most subjective measure in the report and will probably cause most arguments, debates and disagreements. A lot of the data in the report is crowdsourced (including this new quality of life index). Wellington, NZ comes out on top out of the 47 cities we cover based on purchasing power, crime, healthcare, cost of living, house prices, commuting time, pollution and climate. Edinburgh, Vienna, Melbourne, Zurich and Copenhagen are next. Of our 47 cities, the 'mega cities' like Tokyo (rank 27), NYC (28), Paris (30), London (33), Shanghai (37) and Mumbai (45) rank very low mostly due to high living costs, crime, pollution and commuting time. As we said this is highly subjective and one person's long commute may be another person's chance to catch-up on Netflix or better still DB research. Megacity dwellers may also forsake shortterm quality of life for aspirational reasons with these cities providing more upside rewards from the average for those most successful.

Zurich remains the most expensive place to do and buy a lot of things but does have the highest average salaries, followed by several US cities and then Sydney. Sadly for the authors of this report, London has slipped out of the top 10 post the Brexit-FX fall. Rents are highest in San Fran, HK, NYC, London and then Zurich. Zurich is home to the highest 'disposable income after rents' and at the top of the purchasing power index. However it might depend on how many dates and haircuts you have in a month (see below) as to how wealthy you feel. At the other end of the scale if you're in J akarta, M anila, Rio, New Delhi and Istanbul and a job comes up in Zurich then you could potentially increase your salary by ten-fold. Mind the cost of living increases though!

When this report was first published 5 years ago, the US was a cheap place in a global context but after a strong dollar bull run, US cities have slowly climbed up the global list in terms of expensiveness but global brands continue to be relatively cheaper in the US than across its DM peers. The top 10 most expensive regions across goods and services continue to be dominated by European cities. Swiss and Nordic/Scandinavian cities in particular require a tolerant bank manager to enable consumption. If you find yourself on holiday in Turkey, Brazil, Russia or Greece try to avoid the Apple store as iPhones are 25-50\% more expensive than in the US - still the cheapest place to buy. J apan, Hong Kong, M alaysia and Canada only see a small premium over US prices.

Our "weekend getaway" index neatly reflects the general cost of living around the world but is perhaps biased by hotel costs. Milan is the new number one (very expensive hotels), followed by Copenhagen, Zurich, London, Stockholm, Vienna and NYC. Much lower hotel costs in Asia continue to keep these cities as attractive holiday destinations.
.. Continued overleaf

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Our advice to those in Zurich is either to marry young or choose your blind dates carefully as our 'cheap date' index continues to see Zurich as the most expensive place for courtship. Tokyo climbs to second and Oslo, Copenhagen and Stockholm make up the top 5. Indeed these 5 cities are also the most expensive for a haircut so the pre-date investment costs are also high! If you're in the Philippines, Indonesia, Malaysia, India and Mexico a date is around a quarter of the cost of that in Zurich and a haircut about a tenth of the price. So if you're young, free and single in Zurich, depending on how much you date it might be profitable to migrate to parts of Asia even after the salary sacrifice.

Our 'bad habits' index of cigarettes and beers is most costly in Australia, NZ and Singapore. At the opposite end of the spectrum it's very cheap to indulge in such habits in the Czech Republic and South Africa (where half my team is from interestingly). If you relocate to Singapore, Copenhagen or Oslo consider a bike rather than a new car as duties etc. make the cost very prohibitive. Avoid car rentals in Amsterdam and try not to get thirsty in Oslo (beer or coke) and refrain from buying jeans and trainers in Copenhagen. Petrol costs most in HK and public transport most in London.

At the heart of this document is the bigger picture debate about whether purchasing power parity (PPP) corrects itself over time. In theory mean reversion should occur even if it takes a number of years. Exchange rates should adjust for large price differentials across countries (or visa-versa), especially those of a similar economic level of development. This is why such analysis is relevant for all global investors as it should help monitor those regions that are cheap or expensive which should at least help inform investment decisions.

In the report we look at Quality of Life (Figure 1), Salaries, Rents and Disposable after Rent Income (Figure 2 - Figure 4), our Weekend Getaway, Cheap Date and Bad Habits (Figure 5 - Figure 7) indices. We then look at the individual series of the prices of goods and senvices across the world (Figure 8Figure 26). Hopefully the piece stimulates debate and interest and highlights the relative prices around the globe and how this has changed through time.

Acknowledgements: Most of our price data is collected from Expatistan (www.expatistan.com). We would like to give special thanks to the founder Gerardo Robledillo for permitting us to use this data and for assisting us in collating historical data from the website.

Our new Quality of life indices and salary datasets use data collected from Numbeo (www.numbeo.com). We would like to thank the founder Mladen Adamovic for permitting us to use the data from his website.
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Notes on data and methodology: We have collected the data by surveying prices posted on the internet as well as from secondary sources. In order to ensure that prices are comparable across countries, we have tried our best to use goods and services that are standard across countries or are close substitutes. As a result we have tried to ensure that all price distortions such as taxes, surcharges and discounts are included.

Much of our data is from sources that utilize crowdsourcing techniques to collect and aggregate price data. While this methodology provides them with regular data updates from a large sample, there may be issues with data quality and consistency over time. As a result some data points in our report may also be somewhat inconsistent over time although we tried to adjust for outliers where possible. Do note thus that prices, changes and ranks should be considered representative with considerable room for measurement and sampling error.

In order to further control for the quality and consistency of our data, we have revised previous years' data points wherever possible to ensure that data refers to the same periods of time (i.e. the month of April in every year) to control from potential seasonality within and across regions and thus improve both intra- and inter- period comparability. Thus some data points and ranks may not line up exactly with previous years' publications although the broader picture and conclusions should remain largely unchanged. Changes from 2016 ranks are also noted in brackets next to current ranks (+ve change means the city has moved up in ranks for relevant category as compared to 2016).

## Quality of Life Indices

New to this year's study is a quality of life index of the 47 major cities we collect prices for across the rest of this document.

Figure 1 shows the overall index level plus the ranks for the individual components. The data has been collected by www.numbeo.com - a large crowd-sourced information database on global prices, quality of living etc. The data is based on the following 8 variables; purchasing power, safety, healthcare, cost of living, house prices/income, commuting time, pollution and climate.

The climate index scores heavily discriminate against the extremes (especially heat and humidity) and favour the most temperate climes. For example San Francisco, Cape Town and Lisbon top this list whereas four cities score negative marks (Mumbai, Kuala Lumpur, Manila and Singapore for being too hot and humid). Potentially cold northern cities like Helsinki and Oslo rank low at 35 and 38 out of 47 respectively but on this measure score better than those cities at the other end of the extreme. This may not match everyone's preferences so in the appendix Figure 30 calculates the same overall index without this most subjective variable. The only two cities moving more than 10 places though are Singapore and Kuala Lumpur who would be 20 and 11 places higher respectively without climate as an input. Indeed my co-author Sukanto studied in Singapore for four years, having been brought up in India, and he thinks London is far too cold and would prefer the equatorial climate. My Scottish father was brought up in M alaysia and lived and worked for a lot of the first half of his life in Singapore returning back to Glasgow for family events. I wish I'd have asked him which he preferred!!

Wellington, NZ comes top out of the 47 cities we cover. Edinburgh, Vienna, M elbourne, Zurich and Copenhagen are next. The 'mega cities' like Tokyo (rank 27), NYC (28), Paris (30), London (33), Shanghai (37) and Mumbai (45) rank very low mostly due to high living costs, crime, pollution and commuting time. As we said earlier this is all highly subjective and one person's long commute may be another person's chance to catch-up on Netflix or DB research.

Indeed this study works on averages and the megacities often offer aspirational qualities that the average citizen may strive towards and in return accept some quality of life impairment (e.g. commuting, pollution, crime, property prices) on the journey. The megacities also have better entertainment/social opportunities which are not covered here. After the table we detail how this series diverges from other more established quality of life indicators.

There is no perfect way of calculating this but we wanted to stimulate debate and highlight how cities rank on subjective quality of life variables.

Note on Methodology: The Numbeo Quality of Life index is an empirical measure of the living standards across various cities. The index is calculated by aggregating various sub-indices that measure certain broad factors that affect overall quality of life in a given location. These underlying sub-indices measure (1) consumer purchasing power (purchasing power index); (2) regional crime and safety (safety index); (3) overall quality of health care availability (healthcare index); (4) general cost of consumer goods (cost of living index); (5) housing affordability (property price to income ratio; (6) traffic congestion and commute times (traffic commute time index); (7) overall pollution (pollution index); and (8) regional climate likeability (climate index). Further details on methodology around data collection and aggregation can be found at the source website www.numbeo.com or more directly at https://goo.gl/1b2jWZ

Figure 1: Quality of Life Indices (ranks)

|  | Country | City | Purchasing Safety Index Power Index | Health Care Index | Cost of Living Index | Property Price to Income Ratio | Traffic Commute Time Index | Pollution Index | Climate Index |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | New Zealand | Wellington | 612 | 23 | 28 | 3 | 2 | 1 | 8 |
| 2. | United Kingdom | Edinburgh | 1610 | 2 | 25 | 6 | 1 | 3 | 24 |
| 3. | Austria | Vienna | 206 | 1 | 23 | 30 | 3 | 7 | 19 |
| 4. | Australia | Melbourne | 321 | 7 | 33 | 9 | 10 | 13 | 6 |
| 5. | Switzerland | Zurich | 12 | 9 | 47 | 22 | 8 | 2 | 29 |
| 6. | Denmark | Copenhagen | 13 5 | 19 | 41 | 12 | 5 | 8 | 25 |
| 7. | Canada | Ottawa | 47 | 25 | 22 | 4 | 16 | 4 | 39 |
| 8. | United States | Boston | 218 | 10 | 42 | 8 | 36 | 9 | 23 |
| 9. | Netherlands | Amsterdam | 2614 | 12 | 29 | 21 | 4 | 14 | 15 |
| 10. | Australia | Sydney | 1120 | 15 | 40 | 28 | 26 | 12 | 12 |
| 11. | Finland | Helsinki | 109 | 8 | 30 | 18 | 11 | 6 | 35 |
| 11. | Germany | Berlin | $7 \quad 19$ | 3 | 21 | 14 | 6 | 23 | 28 |
| 13. | New Zealand | Auckland | $12 \quad 24$ | 21 | 38 | 17 | 21 | 11 | 11 |
| 14. | Canada | Toronto | $8 \quad 17$ | 14 | 24 | 13 | 27 | 22 | 22 |
| 15. | Portugal | Lisbon | $39 \quad 15$ | 29 | 15 | 32 | 9 | 16 | 3 |
| 16. | Spain | Madrid | 2813 | 4 | 20 | 23 | 17 | 26 | 7 |
| 17. | South Africa | Cape Town | $27 \quad 44$ | 11 | 10 | 5 | 24 | 21 | 2 |
| 18. | United States | San Francisco | 2133 | 26 | 44 | 26 | 20 | 17 | 1 |
| 19. | Czech Republic | Prague | $34 \quad 11$ | 17 | 9 | 31 | 14 | 19 | 26 |
| 20. | Sweden | Stockholm | 1425 | 30 | 37 | 34 | 19 | 5 | 32 |
| 21. | Ireland | Dublin | $18 \quad 37$ | 45 | 31 | 10 | 13 | 15 | 21 |
| 22. | United States | Chicago | $5 \quad 41$ | 35 | 39 | 2 | 31 | 20 | 31 |
| 23. | Poland | Warsaw | 35 8 | 40 | 6 | 24 | 18 | 25 | 27 |
| 24. | Belgium | Brussels | 23 38 | 5 | 26 | 7 | 7 | 31 | 14 |
| 25. | South Africa | J ohannesburg | $9 \quad 47$ | 41 | 11 | 1 | 34 | 37 | 4 |
| 26. | Norway | Oslo | $15 \quad 31$ | 18 | 46 | 20 | 22 | 10 | 38 |
| 27. | J apan | Tokyo | 19 3 | 6 | 43 | 40 | 29 | 24 | 37 |
| 28. | United States | New York | $17 \quad 29$ | 36 | 45 | 29 | 37 | 28 | 13 |
| 29. | Italy | Milan | $33 \quad 27$ | 16 | 27 | 37 | 15 | 30 | 18 |
| 30. | France | Paris | 2435 | 13 | 36 | 35 | 23 | 34 | 20 |
| 31. | Turkey | Istanbul | 4232 | 22 | 7 | 25 | 43 | 32 | 10 |
| 32. | Greece | Athens | $43 \quad 34$ | 46 | 19 | 18 | 12 | 33 | 5 |
| 33. | United Kingdom | London | 2926 | 24 | 34 | 43 | 35 | 27 | 17 |
| 34. | India | Bangalore | $22 \quad 28$ | 27 | 1 | 11 | 39 | 39 | 36 |
| 35. | Mexico | Mexico City | $40 \quad 42$ | 32 | 4 | 16 | 41 | 44 | 15 |
| 36. | Hong Kong | Hong Kong | $30 \quad 4$ | 31 | 32 | 47 | 25 | 35 | 40 |
| 37. | China | Shanghai | 36 | 42 | 16 | 44 | 32 | 42 | 30 |
| 38. | Russia | Moscow | 4123 | 43 | 12 | 41 | 42 | 29 | 41 |
| 39. | Singapore | Singapore | $25 \quad 1$ | 20 | 35 | 42 | 28 | 18 | 46 |
| 40. | Brazil | Sao Paulo | 46 | 44 | 17 | 38 | 33 | 40 | 9 |
| 41. | India | Delhi | $32 \quad 39$ | 34 | 2 | 33 | 40 | 46 | 42 |
| 42. | China | Beijing | $38 \quad 22$ | 33 | 14 | 46 | 38 | 47 | 34 |
| 43. | Brazil | Rio de J aneiro | $45 \quad 46$ | 47 | 18 | 39 | 44 | 36 | 33 |
| 44. | Indonesia | J akarta | $47 \quad 36$ | 38 | 13 | 36 | 45 | 41 | 43 |
| 45. | India | Mumbai | $37 \quad 30$ | 37 | 3 | 45 | 47 | 43 | 44 |
| 46. | Malaysia | Kuala Lumpur | 3143 | 39 | 8 | 15 | 30 | 38 | 47 |
| 47. | Philippines | Manila | $44 \quad 40$ | 28 | 5 | 27 | 46 | 45 | 45 |

[^0]Notes: Index ranks are based on indices published periodically on source website.

We have cross referenced the overall list against other similar indices provided by firms such as Mercer and matched up our 47 cities with their rankings. The following cities have a difference in ranking more than 10 places higher or lower on our series. We try to offer explanations as to the reasons for this.

Edinburgh: 23 places higher at no.2: Edinburgh tops the list in terms of commuting time, 2nd on healthcare satisfaction, scores 3rd on pollution, 6th on property prices/income, 10th in safety and scores lowest on climate and cost of living at 24th and 25th on the list. It is therefore a consistent all rounder Decent opportunities, average costs but less stressful living/working conditions assuming you agree with the climate score!

Boston: 11 places higher at no. 8: Ranked 2nd, 8th, 9th and 10th on purchasing power, property prices/income, pollution and healthcare respectively.

Auckland: 10 places lower at no. 13: Unlike Wellington which has 6 top 10 rankings, Auckland has none and while no. 13 is a high ranking it's just outside the top 10 on a number of our variables.

Madrid: 12 places higher at no. 16: Comfortably inside the top 10 in healthcare and climate helps it offset weak purchasing power.

Cape Town: 17 places higher at no. 17: The second best climate behind San Fran and 5th on cheapest property prices give it a boost that other surveys might not? The safety index is a lowly 44th.

Prague: 10 places higher at no. 19: Cost of living (9th), Safety (11th) and commuting time (14th) are its highest ranked components.

Brussels: 10 places lower at no. 24: Safety (38th), Pollution (31st) and Cost of Living (26th) drag the city down. On more economic weighted measures it may score better.

Johannesburg: 10 places higher at no. 25: - Like Cape Town cheap property/income (1st) and Climate (4th) boost it.

Paris: 10 places lower at no. 30: - No top 10s and scores low on Cost of Living (36th), Property/Income (35th), Safety (35th), and Pollution (34th).

Istanbul: 10 places higher at no. 31: - Cost of Living (7th) and Climate (10th) are where it out-performs.

London: 12 places lower at no. 33: - For those of us living or working in this great city it might be a surprise to see its best ranking be the Climate (17th). Property/income (43rd), Commuting (35th) and Cost of Living (34th) helps rank it down.

Bangalore: 10 places higher at no. 34: - Scoring best on Cost of Living surely helps boost it above its placing on other surveys.

Singapore: 26 places lower at no. 29: - This is the biggest discrepancy on our list from more established surveys. Safety scores best but Climate is second worst. Cost of Living (35th) and Property/Income (42nd) do not help.

Kuala Lumpur: 14 places lower at no.46: - Scores last in Climate, 43rd in Safety, 39th in Healthcare and 38th in Pollution.

## M onthly Incomes and Rents

Figure 2: M onthly Salary (Net of Taxes)

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To <br> NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Switzerland | Zurich | 7,171 | 6,625 | 5,851 | 5,876 | 137\% | 0\% | -6\% | -18\% | -34\% |
| 02. (+1) | United States | San Francisco | 3,470 | 4,059 | 4,282 | 4,817 | 112\% | 13\% | 5\% | 39\% | 12\% |
| 03. (-1) | United States | Boston | 3,494 | 3,421 | 4,361 | 4,322 | 100\% | -1\% | -7\% | 24\% | 0\% |
| 04. (-) | United States | New York City | 3,476 | 3,376 | 4,027 | 4,304 | 100\% | 7\% | 0\% | 24\% | 0\% |
| 05. (-) | United States | Chicago | 3,247 | 3,003 | 3,579 | 3,622 | 84\% | 1\% | -5\% | 12\% | -10\% |
| 06. (-) | Australia | Sydney | 4,458 | 3,612 | 3,560 | 3,451 | 80\% | -3\% | -9\% | -23\% | -37\% |
| 07. (-) | Australia | Melbourne | 3,841 | 3,357 | 3,516 | 3,344 | 78\% | -5\% | -11\% | -13\% | -30\% |
| 08. (-) | Norway | Oslo | 4,606 | 3,498 | 3,309 | 3,154 | 73\% | -5\% | -11\% | -32\% | -45\% |
| 09. (-) | Singapore | Singapore | 3,098 | 3,210 | 3,118 | 3,077 | 71\% | -1\% | -8\% | -1\% | -20\% |
| 10. (+1) | Denmark | Copenhagen | 3,601 | 2,856 | 2,985 | 2,958 | 69\% | -1\% | -7\% | -18\% | -34\% |
| 11. (+2) | New Zealand | Wellington | 2,805 | 2,598 | 2,799 | 2,941 | 68\% | 5\% | -2\% | 5\% | -15\% |
| 12. $(+3)$ | $J$ apan | Tokyo | 2,696 | 2,646 | 2,746 | 2,897 | 67\% | 5\% | -1\% | 7\% | -13\% |
| 13. (-3) | United Kingdom | London | 3,193 | 3,040 | 3,025 | 2,776 | 65\% | -8\% | -14\% | -13\% | -30\% |
| 14. (+8) | New Zealand | Auckland | 2,666 | 2,720 | 2,629 | 2,762 | 64\% | 5\% | -2\% | 4\% | -16\% |
| 15. (+4) | Hong Kong | Hong Kong | 2,589 | 2,921 | 2,659 | 2,715 | 63\% | 2\% | -4\% | 5\% | -15\% |
| 16. (+2) | Germany | Frankfurt | 3,413 | 2,640 | 2,696 | 2,626 | 61\% | -3\% | -9\% | -23\% | -38\% |
| 17. (-5) | Sweden | Stockholm | 3,388 | 2,716 | 2,827 | 2,622 | 61\% | -7\% | -13\% | -23\% | -37\% |
| 18. (-2) | Finland | Helsinki | 3,009 | 2,639 | 2,726 | 2,620 | 61\% | -4\% | -10\% | -13\% | -30\% |
| 19. (-5) | Ireland | Dublin | 2,949 | 2,675 | 2,775 | 2,603 | 60\% | -6\% | -12\% | -12\% | -29\% |
| 20. (+1) | France | Paris | 3,016 | 2,493 | 2,633 | 2,583 | 60\% | -2\% | -8\% | -14\% | -31\% |
| 21. (-4) | Canada | Toronto | 3,077 | 2,795 | 2,721 | 2,560 | 59\% | -6\% | -12\% | -17\% | -33\% |
| 22. (+2) | Netherlands | Amsterdam | 3,314 | 2,657 | 2,478 | 2,493 | 58\% | 1\% | -6\% | -25\% | -39\% |
| 23. (-3) | Canada | Ottawa | 3,362 | 2,676 | 2,648 | 2,446 | 57\% | -8\% | -14\% | -27\% | -41\% |
| 24. (-1) | United Kingdom | Edinburgh | 2,824 | 2,613 | 2,480 | 2,293 | 53\% | -8\% | -13\% | -19\% | -34\% |
| 25. (-) | Germany | Berlin | 2,519 | 1,990 | 2,273 | 2,216 | 52\% | -3\% | -9\% | -12\% | -29\% |
| 26. (-) | Belgium | Brussels | 2,620 | 2,221 | 2,228 | 2,140 | 50\% | -4\% | -10\% | -18\% | -34\% |
| 27. (-) | Austria | Vienna | 2,515 | 2,051 | 2,072 | 2,045 | 48\% | -1\% | -8\% | -19\% | -34\% |
| 28. (-) | Italy | Milan | 2,231 | 1,817 | 1,856 | 1,737 | 40\% | -6\% | -12\% | -22\% | -37\% |
| 29. (+2) | South Africa | J ohannesburg | 2,023 | 1,568 | 1,368 | 1,650 | 38\% | 21\% | 13\% | -18\% | -34\% |
| 30. (-1) | Spain | Madrid | 2,002 | 1,571 | 1,635 | 1,588 | 37\% | -3\% | -9\% | -21\% | -36\% |
| 31. (-1) | China | Shanghai | 1,482 | 1,489 | 1,450 | 1,336 | 31\% | -8\% | -14\% | -10\% | -27\% |
| 32. (-) | South Africa | Cape Town | 1,628 | 1,509 | 1,151 | 1,210 | 28\% | 5\% | -2\% | -26\% | -40\% |
| 33. (+1) | Czech Republic | Prague | 1,259 | 958 | 1,038 | 1,033 | 24\% | 0\% | -7\% | -18\% | -34\% |
| 34. (+3) | Russia | Moscow | 1,390 | 1,022 | 834 | 999 | 23\% | 20\% | 12\% | -28\% | -42\% |
| 35. (-2) | Malaysia | Kuala Lumpur | 1,093 | 1,191 | 1,136 | 987 | 23\% | -13\% | -19\% | -10\% | -27\% |
| 36. (-) | Poland | Warsaw | 1,242 | 943 | 953 | 975 | 23\% | 2\% | -4\% | -22\% | -37\% |
| 37. (-2) | Portugal | Lisbon | 1,202 | 954 | 976 | 964 | 22\% | -1\% | -8\% | -20\% | -35\% |
| 38. (+2) | India | Mumbai | 654 | 722 | 765 | 788 | 18\% | 3\% | -4\% | 20\% | -3\% |
| 39. (-) | Greece | Athens | 1,022 | 772 | 789 | 776 | 18\% | -2\% | -8\% | -24\% | -39\% |
| 40. (+1) | India | Bangalore | 705 | 718 | 707 | 760 | 18\% | 7\% | 1\% | 8\% | -13\% |
| 41. (+5) | Brazil | Sao Paulo | 1,042 | 649 | 614 | 722 | 17\% | 18\% | 10\% | -31\% | -44\% |
| 42. (-) | Mexico | Mexico City | 906 | 715 | 703 | 685 | 16\% | -3\% | -9\% | -24\% | -39\% |
| 43. (-5) | Turkey | Istanbul | 905 | 734 | 831 | 683 | 16\% | -18\% | -23\% | -25\% | -39\% |
| 44. (-) | India | New Delhi | 639 | 586 | 630 | 654 | 15\% | 4\% | -3\% | 2\% | -17\% |
| 45. $(-2)$ | Brazil | Rio de J aneiro | 789 | 687 | 653 | 639 | 15\% | -2\% | -9\% | -19\% | -35\% |
| 46. (+1) | Philippines | Manila | 569 | 483 | 560 | 555 | 13\% | -1\% | -7\% | -2\% | -21\% |
| 47. (-2) | Indonesia | J akarta | 393 | 469 | 619 | 548 | 13\% | -11\% | -17\% | 39\% | 13\% |

Figure 3: M onthly rent for mid-range 2 bedroom apartment

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. <br> Change <br> (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | United States | San Francisco | 3,066 | 3,446 | 3,460 | 3,449 | 119\% | 0\% | -4\% | 12\% | 12\% |
| 02. (-) | Hong Kong | Hong Kong | 3,077 | 3,250 | 3,184 | 3,237 | 111\% | 2\% | -2\% | 5\% | 5\% |
| 03. (+1) | United States | New York City | 2,901 | 2,926 | 2,801 | 2,909 | 100\% | 4\% | 0\% | 0\% | 0\% |
| 04. (-1) | United Kingdom | London | 2,682 | 2,898 | 2,843 | 2,617 | 90\% | -8\% | -11\% | -2\% | -3\% |
| 05. (-) | Switzerland | Zurich | 3,000 | 2,697 | 2,581 | 2,520 | 87\% | -2\% | -6\% | -16\% | -16\% |
| 06. (+1) | United Kingdom | Edinburgh | 1,793 | 2,023 | 2,431 | 2,361 | 81\% | -3\% | -6\% | 32\% | 31\% |
| 07. (+2) | France | Paris | 2,844 | 2,218 | 2,300 | 2,289 | 79\% | 0\% | -4\% | -20\% | -20\% |
| 08. (+4) | United States | Boston | 2,177 | 2,349 | 2,069 | 2,225 | 76\% | 8\% | 4\% | 2\% | 2\% |
| 09. (-3) | Australia | Sydney | 2,048 | 1,904 | 2,440 | 2,134 | 73\% | -13\% | -16\% | 4\% | 4\% |
| 10. (-2) | J apan | Tokyo | 1,625 | 1,532 | 2,323 | 2,010 | 69\% | -14\% | -17\% | 24\% | 23\% |
| 11. (-) | Singapore | Singapore | 2,428 | 2,347 | 2,114 | 1,884 | 65\% | -11\% | -14\% | -22\% | -23\% |
| 12. ( +1 ) | Norway | Oslo | 2,632 | 1,841 | 1,820 | 1,830 | 63\% | 1\% | -3\% | -30\% | -31\% |
| 13. $(+6)$ | Ireland | Dublin | 1,634 | 1,283 | 1,499 | 1,694 | 58\% | 13\% | 9\% | 4\% | 3\% |
| 14. (-4) | Australia | Melbourne | 1,735 | 1,802 | 2,118 | 1,658 | 57\% | -22\% | -25\% | -4\% | -5\% |
| 15. (-) | Netherlands | Amsterdam | 1,979 | 1,438 | 1,722 | 1,570 | 54\% | -9\% | -12\% | -21\% | -21\% |
| 16. (-2) | Denmark | Copenhagen | 1,617 | 1,545 | 1,733 | 1,548 | 53\% | -11\% | -14\% | -4\% | -4\% |
| 17. (-) | Finland | Helsinki | 1,820 | 1,410 | 1,539 | 1,547 | 53\% | 1\% | -3\% | -15\% | -15\% |
| 18. (+2) | New Zealand | Auckland | 1,208 | 1,389 | 1,408 | 1,512 | 52\% | 7\% | 3\% | 25\% | 25\% |
| 19. (+6) | Germany | Frankfurt | 1,370 | 1,137 | 1,216 | 1,463 | 50\% | 20\% | 16\% | 7\% | 6\% |
| 20. (-2) | United States | Chicago | 1,302 | 1,649 | 1,501 | 1,441 | 50\% | -4\% | -8\% | 11\% | 10\% |
| 21. (-) | Canada | Toronto | 1,419 | 1,461 | 1,361 | 1,377 | 47\% | 1\% | -3\% | -3\% | -3\% |
| 22. (-6) | Sweden | Stockholm | 2,298 | 1,263 | 1,610 | 1,348 | 46\% | -16\% | -19\% | -41\% | -41\% |
| 23. (-1) | New Zealand | Wellington | 1,124 | 1,595 | 1,354 | 1,250 | 43\% | -8\% | -11\% | 11\% | 11\% |
| 24. (-1) | China | Shanghai | 1,119 | 1,108 | 1,325 | 1,249 | 43\% | -6\% | -9\% | 12\% | 11\% |
| 25. (-1) | Italy | Milan | 1,515 | 1,200 | 1,285 | 1,188 | 41\% | -8\% | -11\% | -22\% | -22\% |
| 26. (-) | Austria | Vienna | 1,253 | 1,067 | 1,140 | 1,125 | 39\% | -1\% | -5\% | -10\% | -10\% |
| 27. (+2) | Belgium | Brussels | 1,252 | 1,161 | 1,042 | 1,067 | 37\% | 2\% | -1\% | -15\% | -15\% |
| 28. (+3) | Russia | Moscow | 1,903 | 1,145 | 958 | 1,049 | 36\% | 10\% | 6\% | -45\% | -45\% |
| 29. (-1) | Germany | Berlin | 1,119 | 921 | 1,045 | 1,044 | 36\% | 0\% | -4\% | -7\% | -7\% |
| 30. (-3) | Canada | Ottawa | 1,081 | 1,004 | 1,132 | 962 | 33\% | -15\% | -18\% | -11\% | -11\% |
| 31. (-1) | Spain | Madrid | 1,180 | 887 | 985 | 922 | 32\% | -6\% | -10\% | -22\% | -22\% |
| 32. (+1) | Poland | Warsaw | 982 | 810 | 735 | 864 | 30\% | 18\% | 13\% | -12\% | -12\% |
| 33. (+4) | South Africa | Cape Town | 706 | 780 | 664 | 864 | 30\% | 30\% | 25\% | 22\% | 22\% |
| 34. (-2) | Brazil | Rio de J aneiro | 1,215 | 1,026 | 816 | 853 | 29\% | 5\% | 1\% | -30\% | -30\% |
| 35. (-1) | Brazil | Sao Paulo | 1,175 | 874 | 729 | 843 | 29\% | 16\% | 11\% | -28\% | -28\% |
| 36. (-1) | Portugal | Lisbon | 896 | 645 | 726 | 711 | 24\% | -2\% | -6\% | -21\% | -21\% |
| 37. (+5) | South Africa | J ohannesburg | 771 | 697 | 573 | 710 | 24\% | 24\% | 19\% | -8\% | -8\% |
| 38. (+1) | Mexico | Mexico City | 874 | 658 | 629 | 710 | 24\% | 13\% | 9\% | -19\% | -19\% |
| 39. (-3) | Czech Republic | Prague | 798 | 615 | 690 | 677 | 23\% | -2\% | -6\% | -15\% | -15\% |
| 40. (+1) | India | Mumbai | 490 | 509 | 614 | 592 | 20\% | -4\% | -7\% | 21\% | 20\% |
| 41. (-3) | Indonesia | J akarta | 792 | 662 | 650 | 581 | 20\% | -11\% | -14\% | -27\% | -27\% |
| 42. (-2) | Turkey | Istanbul | 675 | 534 | 618 | 568 | 20\% | -8\% | -11\% | -16\% | -16\% |
| 43. (-) | Philippines | Manila | 701 | 770 | 553 | 567 | 20\% | 3\% | -1\% | -19\% | -19\% |
| 44. (-) | Greece | Athens | 645 | 494 | 541 | 514 | 18\% | -5\% | -8\% | -20\% | -20\% |
| 45. (+1) | India | New Delhi | 301 | 354 | 373 | 470 | 16\% | 26\% | 21\% | 56\% | 56\% |
| 46. (-1) | Malaysia | Kuala Lumpur | 580 | 592 | 511 | 428 | 15\% | -16\% | -19\% | -26\% | -26\% |
| 47. (-) | India | Bangalore | 256 | 285 | 328 | 296 | 10\% | -10\% | -13\% | 16\% | 15\% |

[^1]Figure 4: Disposable Income Index after Rents (assuming 2 people working and sharing)

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change <br> (\%) | YoY <br> Change <br> (\%) Rel. To <br> NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change <br> (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Switzerland | Zurich | 5,671 | 5,277 | 4,561 | 4,616 | 162\% | 1\% | -7\% | -19\% | -42\% |
| 02. (-) | United States | Boston | 2,405 | 2,247 | 3,327 | 3,210 | 113\% | -4\% | -11\% | 33\% | -5\% |
| 03. (+2) | United States | San Francisco | 1,937 | 2,336 | 2,552 | 3,093 | 109\% | 21\% | 12\% | 60\% | 14\% |
| 04. (-1) | United States | Chicago | 2,596 | 2,179 | 2,828 | 2,902 | 102\% | 3\% | -5\% | 12\% | -21\% |
| 05. (-1) | United States | New York City | 2,026 | 1,913 | 2,626 | 2,849 | 100\% | 9\% | 0\% | 41\% | 0\% |
| 06. (-) | Australia | Melbourne | 2,974 | 2,456 | 2,457 | 2,515 | 88\% | 2\% | -6\% | -15\% | -40\% |
| 07. (+1) | Australia | Sydney | 3,434 | 2,660 | 2,340 | 2,384 | 84\% | 2\% | -6\% | -31\% | -51\% |
| 08. (+1) | New Zealand | Wellington | 2,243 | 1,800 | 2,122 | 2,316 | 81\% | 9\% | 1\% | 3\% | -27\% |
| 09. $(-2)$ | Norway | Oslo | 3,290 | 2,577 | 2,399 | 2,239 | 79\% | -7\% | -14\% | -32\% | -52\% |
| 10. (-) | Denmark | Copenhagen | 2,793 | 2,084 | 2,119 | 2,184 | 77\% | 3\% | -5\% | -22\% | -44\% |
| 11. (+2) | Singapore | Singapore | 1,884 | 2,036 | 2,061 | 2,135 | 75\% | 4\% | -5\% | 13\% | -19\% |
| 12. (+6) | New Zealand | Auckland | 2,062 | 2,026 | 1,925 | 2,006 | 70\% | 4\% | -4\% | -3\% | -31\% |
| 13. $(-1)$ | Canada | Ottawa | 2,821 | 2,174 | 2,082 | 1,965 | 69\% | -6\% | -13\% | -30\% | -50\% |
| 14. (+2) | Sweden | Stockholm | 2,239 | 2,085 | 2,022 | 1,948 | 68\% | -4\% | -11\% | -13\% | -38\% |
| 15. (-4) | Germany | Frankfurt | 2,727 | 2,072 | 2,088 | 1,895 | 67\% | -9\% | -16\% | -31\% | -51\% |
| 16. (+7) | J apan | Tokyo | 1,884 | 1,880 | 1,585 | 1,892 | 66\% | 19\% | 10\% | 0\% | -29\% |
| 17. (-3) | Canada | Toronto | 2,368 | 2,065 | 2,041 | 1,872 | 66\% | -8\% | -15\% | -21\% | -44\% |
| 18. $(-1)$ | Finland | Helsinki | 2,099 | 1,934 | 1,957 | 1,847 | 65\% | -6\% | -13\% | -12\% | -37\% |
| 19. (-4) | Ireland | Dublin | 2,132 | 2,034 | 2,025 | 1,756 | 62\% | -13\% | -20\% | -18\% | -41\% |
| 20. (+1) | Netherlands | Amsterdam | 2,325 | 1,938 | 1,617 | 1,708 | 60\% | 6\% | -3\% | -27\% | -48\% |
| 21. $(-2)$ | Germany | Berlin | 1,960 | 1,530 | 1,751 | 1,694 | 59\% | -3\% | -11\% | -14\% | -39\% |
| 22. (-2) | Belgium | Brussels | 1,994 | 1,640 | 1,707 | 1,606 | 56\% | -6\% | -13\% | -19\% | -43\% |
| 23. (+1) | Austria | Vienna | 1,888 | 1,518 | 1,502 | 1,482 | 52\% | -1\% | -9\% | -21\% | -44\% |
| 24. $(-2)$ | United Kingdom | London | 1,852 | 1,591 | 1,604 | 1,468 | 52\% | -8\% | -16\% | -21\% | -44\% |
| 25. (-) | France | Paris | 1,594 | 1,384 | 1,484 | 1,438 | 50\% | -3\% | -11\% | -10\% | -36\% |
| 26. (+3) | South Africa | J ohannesburg | 1,638 | 1,219 | 1,082 | 1,294 | 45\% | 20\% | 10\% | -21\% | -44\% |
| 27. (-) | Italy | Milan | 1,474 | 1,217 | 1,213 | 1,143 | 40\% | -6\% | -13\% | -22\% | -45\% |
| 28. (-) | Spain | Madrid | 1,412 | 1,127 | 1,142 | 1,127 | 40\% | -1\% | -9\% | -20\% | -43\% |
| 29. (-3) | United Kingdom | Edinburgh | 1,928 | 1,601 | 1,264 | 1,113 | 39\% | -12\% | -19\% | -42\% | -59\% |
| 30. (-) | Hong Kong | Hong Kong | 1,050 | 1,296 | 1,067 | 1,096 | 38\% | 3\% | -5\% | 4\% | -26\% |
| 31. (+1) | South Africa | Cape Town | 1,276 | 1,119 | 819 | 778 | 27\% | -5\% | -12\% | -39\% | -57\% |
| 32. (-1) | Malaysia | Kuala Lumpur | 803 | 895 | 881 | 773 | 27\% | -12\% | -19\% | -4\% | -32\% |
| 33. (-) | China | Shanghai | 922 | 935 | 787 | 711 | 25\% | -10\% | -17\% | -23\% | -45\% |
| 34. (-) | Czech Republic | Prague | 860 | 650 | 693 | 694 | 24\% | 0\% | -8\% | -19\% | -43\% |
| 35. (+2) | India | Bangalore | 577 | 576 | 543 | 612 | 21\% | 13\% | 4\% | 6\% | -25\% |
| 36. $(-1)$ | Portugal | Lisbon | 753 | 631 | 613 | 608 | 21\% | -1\% | -9\% | -19\% | -43\% |
| 37. (-1) | Poland | Warsaw | 751 | 537 | 585 | 543 | 19\% | -7\% | -15\% | -28\% | -49\% |
| 38. $(+1)$ | Greece | Athens | 699 | 524 | 519 | 519 | 18\% | 0\% | -8\% | -26\% | -47\% |
| 39. $(+1)$ | India | Mumbai | 409 | 467 | 458 | 492 | 17\% | 7\% | -1\% | 20\% | -15\% |
| 40. (+3) | Russia | Moscow | 438 | 449 | 356 | 474 | 17\% | 33\% | 23\% | 8\% | -23\% |
| 41. (-) | India | New Delhi | 488 | 409 | 443 | 419 | 15\% | -5\% | -13\% | -14\% | -39\% |
| 42. (-4) | Turkey | Istanbul | 568 | 467 | 522 | 399 | 14\% | -24\% | -30\% | -30\% | -50\% |
| 43. (-1) | Mexico | Mexico City | 469 | 386 | 388 | 330 | 12\% | -15\% | -22\% | -30\% | -50\% |
| 44. (+2) | Brazil | Sao Paulo | 454 | 212 | 250 | 301 | 11\% | 20\% | 11\% | -34\% | -53\% |
| 45. (-) | Philippines | Manila | 218 | 98 | 283 | 271 | 10\% | -4\% | -12\% | 24\% | -12\% |
| 46. (-2) | Indonesia | J akarta | NA | 138 | 293 | 258 | 9\% | -12\% | -19\% | NA | NA |
| 47. (-) | Brazil | Rio de J aneiro | 182 | 173 | 246 | 212 | 7\% | -14\% | -20\% | 17\% | -17\% |

[^2]Notes: The disposable income index is calculated as after tax income less monthly rents per individual renter of a two bedroom apartment.

## Prices

Figure 5: Weekend Getaway Index

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (+2) | Italy | Milan | NA | NA | 2,122 | 2,092 | 126\% | -1\% | 6\% | NA | NA |
| 02. (+3) | Denmark | Copenhagen | NA | NA | 1,957 | 2,006 | 120\% | 2\% | 10\% | NA | NA |
| 03. (-2) | Switzerland | Zurich | NA | NA | 2,463 | 1,926 | 116\% | -22\% | -16\% | NA | NA |
| 04. (-2) | United Kingdom | London | 2,328 | 2,059 | 2,202 | 1,920 | 115\% | -13\% | -7\% | -18\% | -8\% |
| 05. (-1) | Sweden | Stockholm | NA | NA | 2,020 | 1,803 | 108\% | -11\% | -4\% | NA | NA |
| 06. (na) | Austria | Vienna | NA | NA | NA | 1,703 | 102\% | NA | NA | NA | NA |
| 07. (-) | United States | New York City | 1,852 | 1,686 | 1,782 | 1,664 | 100\% | -7\% | 0\% | -10\% | 0\% |
| 08. (+1) | Netherlands | Amsterdam | NA | NA | 1,603 | 1,652 | 99\% | 3\% | 10\% | NA | NA |
| 09. (na) | United Kingdom | Edinburgh | NA | NA | NA | 1,649 | 99\% | NA | NA | NA | NA |
| 10. (na) | Norway | Oslo | NA | NA | NA | 1,625 | 98\% | NA | NA | NA | NA |
| 11. (+2) | United States | Chicago | 1,720 | 1,512 | 1,508 | 1,565 | 94\% | 4\% | 11\% | -9\% | 1\% |
| 12. (+9) | Russia | Moscow | 2,945 | 1,536 | 1,342 | 1,561 | 94\% | 16\% | 25\% | -47\% | -41\% |
| 13. (+4) | France | Paris | 2,182 | 1,696 | 1,454 | 1,538 | 92\% | 6\% | 13\% | -29\% | -22\% |
| 14. (+4) | Hong Kong | Hong Kong | 1,459 | 1,384 | 1,431 | 1,512 | 91\% | 6\% | 13\% | 4\% | 15\% |
| 15. (-5) | United States | San Francisco | 1,373 | 1,572 | 1,642 | 1,498 | 90\% | -9\% | -2\% | 9\% | 21\% |
| 16. (-4) | United States | Boston | 1,479 | 1,420 | 1,508 | 1,487 | 89\% | -1\% | 6\% | 1\% | 12\% |
| 17. (na) | Ireland | Dublin | NA | NA | NA | 1,479 | 89\% | NA | NA | NA | NA |
| 18. (-3) | Spain | Madrid | NA | NA | 1,497 | 1,446 | 87\% | -3\% | 3\% | NA | NA |
| 19. (-2) | Finland | Helsinki | NA | NA | 1,477 | 1,406 | 84\% | -5\% | 2\% | NA | NA |
| 20. (+4) | Australia | Sydney | 1,372 | 1,321 | 1,280 | 1,396 | 84\% | 9\% | 17\% | 2\% | 13\% |
| 21. (-) | J apan | Tokyo | 1,025 | 1,034 | 1,407 | 1,390 | 84\% | -1\% | 6\% | 36\% | 51\% |
| 22. (-6) | Singapore | Singapore | 1,909 | 1,632 | 1,479 | 1,369 | 82\% | -7\% | -1\% | -28\% | -20\% |
| 23. (+4) | Australia | Melbourne | 1,396 | 1,193 | 1,213 | 1,366 | 82\% | 13\% | 21\% | -2\% | 9\% |
| 24. (na) | Czech Republic | Prague | NA | NA | NA | 1,335 | 80\% | NA | NA | NA | NA |
| 25. (na) | Indonesia | J akarta | NA | NA | NA | 1,270 | 76\% | NA | NA | NA | NA |
| 26. (-1) | Germany | Berlin | 1,554 | 1,317 | 1,304 | 1,201 | 72\% | -8\% | -1\% | -23\% | -14\% |
| 27. (+1) | Mexico | Mexico City | 1,267 | 1,246 | 1,227 | 1,184 | 71\% | -4\% | 3\% | -7\% | 4\% |
| 28. (-6) | Canada | Toronto | 1,257 | 1,366 | 1,426 | 1,176 | 71\% | -18\% | -12\% | -6\% | 4\% |
| 29. (+3) | New Zealand | Auckland | 1,179 | 1,104 | 1,146 | 1,157 | 69\% | 1\% | 8\% | -2\% | 9\% |
| 30. (-) | New Zealand | Wellington | 1,155 | 1,027 | 1,212 | 1,139 | 68\% | -6\% | 1\% | -1\% | 10\% |
| 31. (-4) | Germany | Frankfurt | 1,489 | 1,189 | 1,244 | 1,139 | 68\% | -8\% | -2\% | -24\% | -15\% |
| 32. (-1) | China | Shanghai | 1,081 | 1,162 | 1,198 | 1,070 | 64\% | -11\% | -4\% | -1\% | 10\% |
| 33. (na) | Canada | Ottawa | NA | NA | NA | 1,027 | 62\% | NA | NA | NA | NA |
| 34. (-) | Belgium | Brussels | NA | NA | 1,142 | 1,026 | 62\% | -10\% | -4\% | NA | NA |
| 35. (+2) | South Africa | Cape Town | 1,010 | 1,187 | 934 | 1,021 | 61\% | 9\% | 17\% | 1\% | 13\% |
| 36. (-1) | Brazil | Sao Paulo | 1,855 | 1,329 | 1,107 | 988 | 59\% | -11\% | -4\% | -47\% | -41\% |
| 37. (na) | Brazil | Rio de J aneiro | NA | NA | NA | 966 | 58\% | NA | NA | NA | NA |
| 38. (na) | Portugal | Lisbon | NA | NA | NA | 936 | 56\% | NA | NA | NA | NA |
| 39. (na) | Greece | Athens | NA | NA | NA | 930 | 56\% | NA | NA | NA | NA |
| 40. (-1) | Malaysia | Kuala Lumpur | 1,055 | 964 | 953 | 871 | 52\% | -9\% | -2\% | -17\% | -8\% |
| 41. (+3) | India | Mumbai | 674 | 702 | 756 | 863 | 52\% | 14\% | 22\% | 28\% | 42\% |
| 42. (-) | India | Bangalore | 839 | 751 | 848 | 844 | 51\% | 0\% | 7\% | 1\% | 12\% |
| 43. (na) | Poland | Warsaw | NA | NA | NA | 809 | 49\% | NA | NA | NA | NA |
| 44. (-2) | South Africa | J ohannesburg | 922 | 852 | 856 | 797 | 48\% | -7\% | 0\% | -13\% | -4\% |
| 45. (na) | Philippines | Manila | NA | NA | NA | 789 | 47\% | NA | NA | NA | NA |
| 46. (-1) | India | New Delhi | 997 | 820 | 815 | 782 | 47\% | -4\% | 3\% | -22\% | -13\% |
| 47. (na) | Turkey | Istanbul | NA | NA | NA | 740 | 44\% | NA | NA | NA | NA |

Source: Deutsche Bank calculations
Notes: A weekend holiday is defined as follows: two nights at a standard 5-star hotel room, two pub meals for two, two restaurant dinners for two, car rentals for two days, two pints of beer, four liters of soft drinks/water, and a bit of shopping (purchase of a pair of jeans and a pair of sports shoes).

Figure 6: Cheap Date Index

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To <br> NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Switzerland | Zurich | 206.1 | 194.3 | 209.9 | 195.9 | 147\% | -7\% | -8\% | -5\% | -7\% |
| 02. (+1) | Norway | Oslo | 226.5 | 171.4 | 168.4 | 163.6 | 122\% | -3\% | -4\% | -28\% | -29\% |
| 03. (+1) | $J$ apan | Tokyo | 132.3 | 133.7 | 167.3 | 163.0 | 122\% | -3\% | -4\% | 23\% | 21\% |
| 04. (-2) | Denmark | Copenhagen | 183.9 | 145.3 | 170.6 | 154.2 | 115\% | -10\% | -11\% | -16\% | -18\% |
| 05. (-) | Sweden | Stockholm | 175.3 | 126.1 | 164.5 | 146.7 | 110\% | -11\% | -12\% | -16\% | -18\% |
| 06. (-) | Netherlands | Amsterdam | 152.4 | 127.7 | 139.1 | 134.3 | 101\% | -3\% | -5\% | -12\% | -13\% |
| 07. (+2) | United States | New York City | 131.3 | 131.3 | 131.5 | 133.6 | 100\% | 2\% | 0\% | 2\% | 0\% |
| 08. (-1) | Finland | Helsinki | 161.7 | 128.1 | 135.7 | 132.1 | 99\% | -3\% | -4\% | -18\% | -20\% |
| 09. (-1) | United States | San Francisco | 127.1 | 143.0 | 133.4 | 129.5 | 97\% | -3\% | -4\% | 2\% | 0\% |
| 10. (-) | Belgium | Brussels | 139.7 | 121.7 | 130.5 | 129.1 | 97\% | -1\% | -3\% | -8\% | -9\% |
| 11. (-) | United Kingdom | London | 167.2 | 141.3 | 128.7 | 127.9 | 96\% | -1\% | -2\% | -24\% | -25\% |
| 12. ( +5 ) | Ireland | Dublin | 130.1 | 111.5 | 117.5 | 123.0 | 92\% | 5\% | 3\% | -5\% | -7\% |
| 13. (-1) | United States | Chicago | 110.4 | 123.2 | 127.6 | 122.5 | 92\% | -4\% | -6\% | 11\% | 9\% |
| 14. (+2) | United States | Boston | 121.5 | 113.2 | 118.9 | 122.5 | 92\% | 3\% | 1\% | 1\% | -1\% |
| 15. (+5) | Australia | Sydney | 138.8 | 119.9 | 113.0 | 121.1 | 91\% | 7\% | 6\% | -13\% | -14\% |
| 16. (+5) | New Zealand | Auckland | 130.3 | 118.0 | 111.0 | 120.9 | 91\% | 9\% | 7\% | -7\% | -9\% |
| 17. (-4) | France | Paris | 146.6 | 116.2 | 123.6 | 117.3 | 88\% | -5\% | -7\% | -20\% | -21\% |
| 18. (-3) | United Kingdom | Edinburgh | 140.3 | 126.7 | 122.5 | 115.0 | 86\% | -6\% | -8\% | -18\% | -19\% |
| 19. (-) | Australia | Melbourne | 130.6 | 116.5 | 113.3 | 114.5 | 86\% | 1\% | 0\% | -12\% | -14\% |
| 20. (+6) | Hong Kong | Hong Kong | 92.8 | 104.4 | 101.1 | 110.8 | 83\% | 10\% | 8\% | 19\% | 17\% |
| 21. (-7) | Italy | Milan | 131.0 | 115.1 | 122.5 | 108.1 | 81\% | -12\% | -13\% | -17\% | -19\% |
| 22. (-4) | New Zealand | Wellington | 143.5 | 129.6 | 117.2 | 105.7 | 79\% | -10\% | -11\% | -26\% | -28\% |
| 23. (-1) | Canada | Toronto | 126.9 | 109.4 | 104.8 | 105.7 | 79\% | 1\% | -1\% | -17\% | -18\% |
| 24. (+3) | Germany | Berlin | 133.7 | 110.7 | 100.0 | 101.4 | 76\% | 1\% | 0\% | -24\% | -25\% |
| 25. (-2) | Spain | Madrid | 115.1 | 100.6 | 104.3 | 100.0 | 75\% | -4\% | -6\% | -13\% | -15\% |
| 26. (-1) | Germany | Frankfurt | 141.6 | 104.3 | 103.0 | 99.4 | 74\% | -3\% | -5\% | -30\% | -31\% |
| 27. (-3) | Austria | Vienna | 126.8 | 98.2 | 103.8 | 99.3 | 74\% | -4\% | -6\% | -22\% | -23\% |
| 28. (-) | Singapore | Singapore | 98.6 | 99.5 | 98.8 | 94.6 | 71\% | -4\% | -6\% | -4\% | -6\% |
| 29. (-) | Canada | Ottawa | 95.2 | 103.9 | 98.2 | 92.1 | 69\% | -6\% | -8\% | -3\% | -5\% |
| 30. (+3) | Brazil | Sao Paulo | 92.9 | 79.6 | 73.6 | 85.7 | 64\% | 16\% | 15\% | -8\% | -9\% |
| 31. (-1) | Greece | Athens | 104.2 | 86.3 | 92.1 | 83.9 | 63\% | -9\% | -10\% | -20\% | -21\% |
| 32. $(-1)$ | China | Shanghai | 94.7 | 87.2 | 88.9 | 81.6 | 61\% | -8\% | -10\% | -14\% | -15\% |
| 33. (+1) | Brazil | Rio de J aneiro | 83.7 | 78.7 | 69.4 | 81.6 | 61\% | 17\% | 16\% | -3\% | -4\% |
| 34. (-2) | Portugal | Lisbon | 86.6 | 75.9 | 87.6 | 78.9 | 59\% | -10\% | -11\% | -9\% | -11\% |
| 35. (+1) | Russia | Moscow | 115.1 | 81.7 | 64.8 | 76.8 | 58\% | 19\% | 17\% | -33\% | -34\% |
| 36. (+3) | South Africa | J ohannesburg | 57.7 | 61.8 | 51.9 | 65.0 | 49\% | 25\% | 23\% | 13\% | 11\% |
| 37. (-) | Czech Republic | Prague | 65.3 | 56.1 | 55.1 | 59.2 | 44\% | 7\% | 6\% | -9\% | -11\% |
| 38. (-3) | Turkey | Istanbul | 67.5 | 61.7 | 69.4 | 57.4 | 43\% | -17\% | -18\% | -15\% | -16\% |
| 39. (-1) | Poland | Warsaw | 65.0 | 51.1 | 52.5 | 52.6 | 39\% | 0\% | -1\% | -19\% | -21\% |
| 40. (+2) | South Africa | Cape Town | 48.4 | 54.1 | 47.5 | 52.4 | 39\% | 10\% | 9\% | 8\% | 6\% |
| 41. (+5) | India | Mumbai | 38.8 | 35.4 | 43.9 | 50.7 | 38\% | 15\% | 14\% | 31\% | 28\% |
| 42. (+2) | Mexico | Mexico City | 52.6 | 51.5 | 46.9 | 49.6 | 37\% | 6\% | 4\% | -6\% | -7\% |
| 43. (+4) | India | Bangalore | 41.8 | 40.1 | 43.0 | 46.7 | 35\% | 9\% | 7\% | 12\% | 10\% |
| 44. (-4) | India | New Delhi | 42.9 | 47.6 | 48.2 | 44.4 | 33\% | -8\% | -9\% | 4\% | 2\% |
| 45. (-2) | Malaysia | Kuala Lumpur | 59.7 | 52.7 | 47.3 | 44.1 | 33\% | -7\% | -8\% | -26\% | -27\% |
| 46. (-5) | Indonesia | J akarta | 50.4 | 49.0 | 48.0 | 41.9 | 31\% | -13\% | -14\% | -17\% | -18\% |
| 47. (-2) | Philippines | Manila | 43.6 | 59.7 | 45.8 | 39.2 | 29\% | -14\% | -16\% | -10\% | -12\% |

[^3]Notes: We have defined a cheap date as follows: cab rides, dinner/lunch for two at a pub or diner, soft drinks, two movie tickets and a couple of beers.

Figure 7: Bad Habits Index

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Norway | Oslo | 95.4 | 71.9 | 78.2 | 75.0 | 119\% | -4\% | -4\% | -21\% | -30\% |
| 02. (-) | Australia | Melbourne | 69.2 | 69.9 | 69.3 | 75.0 | 119\% | 8\% | 9\% | 8\% | -3\% |
| 03. (+4) | New Zealand | Auckland | 62.2 | 63.0 | 61.0 | 65.3 | 104\% | 7\% | 8\% | 5\% | -6\% |
| 04. (-) | Australia | Sydney | 64.4 | 62.1 | 63.0 | 65.2 | 103\% | 4\% | 4\% | 1\% | -9\% |
| 05. (-) | Singapore | Singapore | 59.7 | 56.0 | 62.4 | 64.3 | 102\% | 3\% | 4\% | 8\% | -3\% |
| 06. (-3) | United States | New York City | 56.4 | 64.9 | 63.3 | 63.1 | 100\% | 0\% | 0\% | 12\% | 0\% |
| 07. (+1) | New Zealand | Wellington | 63.0 | 64.6 | 58.9 | 60.3 | 96\% | 2\% | 3\% | -4\% | -14\% |
| 08. (+7) | United States | Boston | 47.0 | 46.3 | 51.0 | 57.2 | 91\% | 12\% | 13\% | 22\% | 9\% |
| 09. (-) | Ireland | Dublin | 59.5 | 53.4 | 56.4 | 56.1 | 89\% | 0\% | 0\% | -6\% | -16\% |
| 10. (-4) | United Kingdom | London | 60.3 | 58.6 | 61.7 | 55.3 | 88\% | -10\% | -10\% | -8\% | -18\% |
| 11. $(+3)$ | Hong Kong | Hong Kong | 50.1 | 41.7 | 51.0 | 53.5 | 85\% | 5\% | 5\% | 7\% | -4\% |
| 12. (-) | United Kingdom | Edinburgh | 56.0 | 54.4 | 53.2 | 51.2 | 81\% | -4\% | -3\% | -9\% | -18\% |
| 13. (-) | France | Paris | 60.6 | 50.7 | 51.8 | 50.5 | 80\% | -2\% | -2\% | -17\% | -25\% |
| 14. (-3) | Switzerland | Zurich | 54.9 | 50.9 | 54.4 | 50.1 | 79\% | -8\% | -8\% | -9\% | -18\% |
| 15. (-5) | United States | Chicago | 47.6 | 52.9 | 55.3 | 49.0 | 78\% | -11\% | -11\% | 3\% | -8\% |
| 16. (-) | Sweden | Stockholm | 61.7 | 46.3 | 50.7 | 47.9 | 76\% | -6\% | -5\% | -22\% | -31\% |
| 17. (+4) | United States | San Francisco | 38.2 | 46.4 | 45.5 | 45.5 | 72\% | 0\% | 0\% | 19\% | 7\% |
| 18. ( +1 ) | Finland | Helsinki | 52.8 | 46.3 | 46.6 | 45.0 | 71\% | -3\% | -3\% | -15\% | -24\% |
| 19. (-1) | Denmark | Copenhagen | 51.0 | 42.8 | 47.2 | 45.0 | 71\% | -5\% | -4\% | -12\% | -21\% |
| 20. (-3) | Canada | Toronto | 50.1 | 46.8 | 47.9 | 43.1 | 68\% | -10\% | -10\% | -14\% | -23\% |
| 21. (+2) | Canada | Ottawa | 45.1 | 44.8 | 43.2 | 41.3 | 65\% | -4\% | -4\% | -8\% | -18\% |
| 22. (-2) | Italy | Milan | 48.7 | 39.7 | 45.6 | 40.6 | 64\% | -11\% | -11\% | -17\% | -25\% |
| 23. (+1) | Netherlands | Amsterdam | 33.3 | 36.3 | 40.5 | 38.2 | 61\% | -6\% | -5\% | 15\% | 3\% |
| 24. (-2) | Spain | Madrid | 32.2 | 37.7 | 44.3 | 37.7 | 60\% | -15\% | -14\% | 17\% | 5\% |
| 25. (-) | China | Shanghai | 37.6 | 30.6 | 37.6 | 35.7 | 57\% | -5\% | -5\% | -5\% | -15\% |
| 26. (+3) | Greece | Athens | 40.4 | 33.1 | 32.9 | 33.3 | 53\% | 1\% | 1\% | -18\% | -26\% |
| 27. (+1) | Belgium | Brussels | 32.2 | 32.1 | 33.5 | 33.0 | 52\% | -2\% | -1\% | 2\% | -8\% |
| 28. (+2) | Germany | Frankfurt | 37.3 | 29.7 | 32.9 | 32.4 | 51\% | -2\% | -1\% | -13\% | -22\% |
| 29. (+3) | Germany | Berlin | 33.5 | 27.5 | 30.7 | 31.4 | 50\% | 2\% | 3\% | -6\% | -16\% |
| 30. (+1) | Austria | Vienna | 36.9 | 29.4 | 31.4 | 31.2 | 50\% | 0\% | 0\% | -15\% | -24\% |
| 31. $(+5)$ | India | New Delhi | 21.2 | 21.3 | 24.8 | 31.0 | 49\% | 25\% | 25\% | 46\% | 31\% |
| 32. (-6) | J apan | Tokyo | 33.6 | 29.3 | 35.7 | 29.8 | 47\% | -17\% | -16\% | -11\% | -21\% |
| 33. (+4) | Russia | Moscow | 33.3 | 24.3 | 23.7 | 29.0 | 46\% | 22\% | 23\% | -13\% | -22\% |
| 34. (+1) | India | Mumbai | 20.8 | 21.4 | 25.3 | 28.5 | 45\% | 12\% | 13\% | 37\% | 22\% |
| 35. (-8) | Malaysia | Kuala Lumpur | 43.4 | 37.3 | 35.0 | 28.3 | 45\% | -19\% | -19\% | -35\% | -42\% |
| 36. (+5) | India | Bangalore | 20.5 | 20.4 | 19.6 | 27.6 | 44\% | 41\% | 42\% | 34\% | 20\% |
| 37. (-4) | Turkey | Istanbul | 30.0 | 26.7 | 29.0 | 26.0 | 41\% | -11\% | -10\% | -13\% | -23\% |
| 38. (+4) | Brazil | Rio de J aneiro | 20.4 | 19.2 | 19.3 | 24.8 | 39\% | 29\% | 30\% | 22\% | 9\% |
| 39. (-) | Brazil | Sao Paulo | 23.8 | 21.8 | 20.2 | 24.6 | 39\% | 22\% | 22\% | 3\% | -7\% |
| 40. (-6) | Indonesia | J akarta | 26.6 | 16.1 | 25.5 | 24.1 | 38\% | -6\% | -5\% | -9\% | -19\% |
| 41. (-3) | Portugal | Lisbon | 26.5 | 23.2 | 23.0 | 20.5 | 32\% | -11\% | -11\% | -23\% | -31\% |
| 42. (-2) | Poland | Warsaw | 23.4 | 19.3 | 19.7 | 19.2 | 31\% | -2\% | -2\% | -18\% | -26\% |
| 43. (-) | Mexico | Mexico City | 22.3 | 19.1 | 18.7 | 19.0 | 30\% | 2\% | 2\% | -15\% | -24\% |
| 44. (+2) | South Africa | Cape Town | 15.0 | 14.6 | 13.7 | 16.7 | 26\% | 22\% | 22\% | 11\% | -1\% |
| 45. (+2) | Philippines | Manila | 9.9 | 12.5 | 11.6 | 14.6 | 23\% | 26\% | 26\% | 48\% | 32\% |
| 46. (-2) | Czech Republic | Prague | 16.4 | 13.0 | 14.1 | 14.6 | 23\% | 3\% | 3\% | -11\% | -21\% |
| 47. (-2) | South Africa | J ohannesburg | 15.7 | 14.8 | 14.1 | 14.5 | 23\% | 3\% | 3\% | -8\% | -18\% |

[^4]Special Report: Mapping the World's Prices 2017

Figure 8: iPhone 7

|  | Country | 2017 | Relative to US (\%) | Relative to iPhone 6S |
| :---: | :---: | :---: | :---: | :---: |
|  |  | USD |  |  |
| 01. | Turkey | 1,200 | 147\% | 116\% |
| 02. | Brazil | 1,115 | 137\% | 103\% |
| 03. | Russia | 1,086 | 133\% | 115\% |
| 04. | Greece | 1,028 | 126\% | 129\% |
| 05. | Poland | 1,005 | 123\% | 116\% |
| 06. | Italy | 995 | 122\% | 114\% |
| 07. | Czech Republic | 994 | 122\% | 115\% |
| 08. | Norway | 993 | 122\% | 115\% |
| 09. | Denmark | 986 | 121\% | 116\% |
| 10. | Sweden | 982 | 120\% | 115\% |
| 11. | Portugal | 973 | 119\% | 114\% |
| 11. | Finland | 973 | 119\% | 114\% |
| 11. | Ireland | 973 | 119\% | 114\% |
| 14. | New Zealand | 972 | 119\% | 117\% |
| 15. | France | 962 | 118\% | 114\% |
| 15. | Spain | 962 | 118\% | 114\% |
| 15. | Netherlands | 962 | 118\% | 114\% |
| 15. | Belgium | 962 | 118\% | 114\% |
| 19. | Austria | 951 | 117\% | 114\% |
| 19. | Germany | 951 | 117\% | 114\% |
| 21. | Mexico | 941 | 115\% | 120\% |
| 22. | Australia | 926 | 114\% | 114\% |
| 23. | India | 902 | 111\% | 97\% |
| 24. | China | 899 | 110\% | 115\% |
| 25. | United Kingdom | 898 | 110\% | 117\% |
| 26. | Switzerland | 886 | 109\% | 116\% |
| 27. | Philippines | 885 | 109\% | 116\% |
| 28. | Singapore | 874 | 107\% | 116\% |
| 29. | Canada | 855 | 105\% | 114\% |
| 30. | Malaysia | 846 | 104\% | 116\% |
| 31. | Hong Kong | 821 | 101\% | 114\% |
| 32. | J apan | 815 | 100\% | 115\% |
| 33. | United States | 815 | 100\% | 115\% |

Source: Official Apple Website, online retailers
Notes: Note: Prices are for iPhone 7, 4.7 inch screen, 128GB. The prices are sourced from official Apple store websites. In the absence of official prices via the websites, we have used prices from online retailers and news websites

Figure 9: iPhone 6S

|  | Country | 2017 | Relative to US |
| :---: | :---: | :---: | :---: |
|  |  | USD |  |
| 01. | Brazil | 1,080 | 153\% |
| 02. | Turkey | 1,032 | 146\% |
| 03. | Russia | 943 | 133\% |
| 04. | India | 933 | 132\% |
| 05. | Italy | 875 | 124\% |
| 06. | Poland | 867 | 123\% |
| 07. | Norway | 864 | 122\% |
| 08. | Czech Republic | 863 | 122\% |
| 09. | Sweden | 856 | 121\% |
| 10. | Denmark | 853 | 121\% |
| 11. | Portugal | 853 | 121\% |
| 11. | Finland | 853 | 121\% |
| 11. | Ireland | 853 | 121\% |
| 14. | France | 842 | 119\% |
| 14. | Spain | 842 | 119\% |
| 14. | Netherlands | 842 | 119\% |
| 14. | Belgium | 842 | 119\% |
| 18. | New Zealand | 833 | 118\% |
| 19. | Austria | 831 | 118\% |
| 19. | Germany | 831 | 118\% |
| 21. | Australia | 813 | 115\% |
| 22. | Greece | 798 | 113\% |
| 23. | China | 783 | 111\% |
| 24. | Mexico | 782 | 111\% |
| 25. | United Kingdom | 769 | 109\% |
| 26. | Switzerland | 765 | 108\% |
| 27. | Philippines | 764 | 108\% |
| 28. | Singapore | 752 | 106\% |
| 29. | Canada | 747 | 106\% |
| 30. | Malaysia | 732 | 104\% |
| 31. | Hong Kong | 718 | 102\% |
| 32. | J apan | 708 | 100\% |
| 33. | United States | 707 | 100\% |

Source: Official Apple Website, online retailers
Note: Prices are for iPhone 6S, 4.7 inch screen, 128GB. The prices are sourced from official Apple store websites. In the absence of official prices via the websites, we have used prices from online retailers and news websites.

Note: Previous year prices have been removed from the comparison as the 16GB model is no longer available.

Figure 10: Daily Car Rental

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (+2) | Netherlands | Amsterdam | NA | NA | 157.7 | 158.8 | 106\% | 1\% | -3\% | NA | NA |
| 02. (+3) | United States | New York City | 173.8 | 167.7 | 144.3 | 149.7 | 100\% | 4\% | 0\% | -14\% | 0\% |
| 03. (-2) | United Kingdom | London | 175.1 | 170.3 | 173.0 | 149.0 | 100\% | -14\% | -17\% | -15\% | -1\% |
| 04. (na) | Norway | Oslo | NA | NA | NA | 148.8 | 99\% | NA | NA | NA | NA |
| 05. (-2) | Switzerland | Zurich | NA | NA | 163.1 | 142.7 | 95\% | -12\% | -16\% | NA | NA |
| 06. (+1) | Denmark | Copenhagen | NA | NA | 142.6 | 139.3 | 93\% | -2\% | -6\% | NA | NA |
| 07. (+2) | $J$ apan | Tokyo | 124.7 | 125.3 | 138.8 | 139.2 | 93\% | 0\% | -3\% | 12\% | 30\% |
| 08. (na) | Indonesia | J akarta | NA | NA | NA | 139.1 | 93\% | NA | NA | NA | NA |
| 09. $(+4)$ | Hong Kong | Hong Kong | 119.9 | 126.5 | 119.9 | 126.0 | 84\% | 5\% | 1\% | 5\% | 22\% |
| 10. ( +2 ) | France | Paris | 203.4 | 149.3 | 125.7 | 124.4 | 83\% | -1\% | -5\% | -39\% | -29\% |
| 11. $(-2)$ | Singapore | Singapore | 163.4 | 154.2 | 142.5 | 123.6 | 83\% | -13\% | -16\% | -24\% | -12\% |
| 12. (-6) | Sweden | Stockholm | NA | NA | 146.6 | 115.2 | 77\% | -21\% | -24\% | NA | NA |
| 13. (na) | Poland | Warsaw | NA | NA | NA | 115.0 | 77\% | NA | NA | NA | NA |
| 14. $(+1)$ | Germany | Frankfurt | 110.4 | 123.6 | 119.0 | 112.8 | 75\% | -5\% | -9\% | 2\% | 19\% |
| 15. (-3) | Italy | Milan | NA | NA | 126.3 | 112.8 | 75\% | -11\% | -14\% | NA | NA |
| 16. (-) | Mexico | Mexico City | 139.0 | 147.0 | 117.4 | 111.2 | 74\% | -5\% | -9\% | -20\% | -7\% |
| 17. (-) | Spain | Madrid | NA | NA | 116.3 | 108.4 | 72\% | -7\% | -10\% | NA | NA |
| 18. $(+1)$ | New Zealand | Wellington | 122.6 | 119.9 | 106.1 | 105.8 | 71\% | 0\% | -4\% | -14\% | 0\% |
| 19. (na) | Czech Republic | Prague | NA | NA | NA | 105.8 | 71\% | NA | NA | NA | NA |
| 20. (na) | Portugal | Lisbon | NA | NA | NA | 104.3 | 70\% | NA | NA | NA | NA |
| 21. (na) | Austria | Vienna | NA | NA | NA | 104.0 | 70\% | NA | NA | NA | NA |
| 22. (-1) | Finland | Helsinki | NA | NA | 112.6 | 99.2 | 66\% | -12\% | -15\% | NA | NA |
| 23. (-) | Belgium | Brussels | NA | NA | 96.9 | 86.5 | 58\% | -11\% | -14\% | NA | NA |
| 24. (na) | Canada | Toronto | 133.0 | 144.9 | NA | 85.9 | 57\% | NA | NA | -35\% | -25\% |
| 25. (na) | Turkey | Istanbul | NA | NA | NA | 82.7 | 55\% | NA | NA | NA | NA |
| 26. (na) | Greece | Athens | NA | NA | NA | 81.5 | 54\% | NA | NA | NA | NA |
| 27. (+2) | Russia | Moscow | 137.4 | 100.2 | 76.8 | 80.4 | 54\% | 5\% | 1\% | -41\% | -32\% |
| 28. (-1) | Malaysia | Kuala Lumpur | 84.1 | 72.6 | 83.1 | 80.1 | 54\% | -4\% | -7\% | -5\% | 11\% |
| 29. (na) | Ireland | Dublin | NA | NA | NA | 79.9 | 53\% | NA | NA | NA | NA |
| 30. (na) | Philippines | Manila | NA | NA | NA | 79.7 | 53\% | NA | NA | NA | NA |
| 31. (-1) | Australia | Sydney | 75.1 | 88.7 | 78.7 | 55.4 | 37\% | -30\% | -32\% | -26\% | -14\% |
| 32. (-) | India | New Delhi | 60.4 | 46.9 | 55.0 | 44.4 | 30\% | -19\% | -22\% | -26\% | -15\% |
| 33. (na) | Brazil | Sao Paulo | NA | NA | NA | 42.7 | 29\% | NA | NA | NA | NA |
| 34. (-) | South Africa | J ohannesburg | 42.6 | 46.2 | 34.3 | 41.0 | 27\% | 19\% | 15\% | -4\% | 12\% |
| 35. (-) | China | Shanghai | 31.5 | 25.0 | 32.0 | 27.7 | 19\% | -13\% | -16\% | -12\% | 2\% |

[^5]Notes: All quotes for bookings on 1-J un-16 to 2-J un-for the respective years. All Car rentals are sourced from Avis Rent A Car System, LLC for either a compact or intermediate car hired for a day from a prominent location. All rates include regional taxes and surcharges; collision/loss damage waivers are also included where optional to facilitate comparability. Some car models which were used for the price points have moved to a different price range this year or are no longer offered; hence the closest models in the same category have been used which are now on offer in similar price ranges. Prices may not be strictly comparable across years due to changes in car models in a particular category.

Figure 11: Five Star Hotel Rooms

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change <br> (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (+1) | Italy | Milan | NA | NA | 687.2 | 716.1 | 167\% | 4\% | 17\% | NA | NA |
| 02. (+1) | United Kingdom | London | 713.8 | 622.7 | 666.5 | 576.5 | 134\% | -13\% | -3\% | -19\% | -5\% |
| 03. (na) | Austria | Vienna | NA | NA | NA | 569.4 | 132\% | NA | NA | NA | NA |
| 04. (+2) | Denmark | Copenhagen | NA | NA | 492.0 | 551.8 | 128\% | 12\% | 26\% | NA | NA |
| 05. (-) | Sweden | Stockholm | NA | NA | 578.2 | 525.5 | 122\% | -9\% | 2\% | NA | NA |
| 06. (-4) | Switzerland | Zurich | NA | NA | 700.0 | 506.5 | 118\% | -28\% | -18\% | NA | NA |
| 07. (na) | United Kingdom | Edinburgh | NA | NA | NA | 487.9 | 113\% | NA | NA | NA | NA |
| 08. (+3) | Russia | Moscow | 1,047.8 | 463.9 | 408.9 | 462.0 | 107\% | 13\% | 27\% | -56\% | -48\% |
| 09. (+6) | United States | Chicago | 480.1 | 362.7 | 374.5 | 440.2 | 102\% | 18\% | 32\% | -8\% | 8\% |
| 10. (-) | Spain | Madrid | NA | NA | 446.1 | 433.6 | 101\% | -3\% | 9\% | NA | NA |
| 11. (-3) | United States | New York City | 507.3 | 438.4 | 484.3 | 429.9 | 100\% | -11\% | 0\% | -15\% | 0\% |
| 12. (na) | Ireland | Dublin | NA | NA | NA | 427.0 | 99\% | NA | NA | NA | NA |
| 13. (+9) | Australia | Sydney | 332.9 | 345.8 | 342.5 | 421.1 | 98\% | 23\% | 39\% | 26\% | 49\% |
| 14. (-1) | Netherlands | Amsterdam | NA | NA | 396.3 | 419.6 | 98\% | 6\% | 19\% | NA | NA |
| 15. (na) | Czech Republic | Prague | NA | NA | NA | 416.2 | 97\% | NA | NA | NA | NA |
| 16. (+12) | Australia | Melbourne | 366.3 | 277.7 | 304.7 | 410.5 | 95\% | 35\% | 52\% | 12\% | 32\% |
| 17. (+4) | France | Paris | 616.1 | 471.2 | 353.0 | 408.7 | 95\% | 16\% | 30\% | -34\% | -22\% |
| 18. (-3) | United States | Boston | 357.7 | 358.2 | 376.5 | 376.5 | 88\% | 0\% | 13\% | 5\% | 24\% |
| 19. (na) | Indonesia | J akarta | NA | NA | NA | 363.0 | 84\% | NA | NA | NA | NA |
| 20. (+5) | Hong Kong | Hong Kong | 326.3 | 333.5 | 333.3 | 360.6 | 84\% | 8\% | 22\% | 11\% | 30\% |
| 21. (-9) | United States | San Francisco | 283.2 | 370.5 | 448.9 | 360.2 | 84\% | -20\% | -10\% | 27\% | 50\% |
| 22. (-3) | Finland | Helsinki | NA | NA | 371.8 | 350.4 | 81\% | -6\% | 6\% | NA | NA |
| 23. (na) | Norway | Oslo | NA | NA | NA | 339.1 | 79\% | NA | NA | NA | NA |
| 24. (+5) | South Africa | Cape Town | 337.4 | 412.5 | 310.4 | 335.4 | 78\% | 8\% | 22\% | -1\% | 17\% |
| 25. (-4) | Mexico | Mexico City | 330.1 | 341.9 | 359.7 | 332.0 | 77\% | -8\% | 4\% | 1\% | 19\% |
| 26. (+7) | J apan | Tokyo | 197.3 | 222.3 | 268.8 | 322.9 | 75\% | 20\% | 35\% | 64\% | 93\% |
| 27. (-3) | Singapore | Singapore | 505.8 | 388.8 | 348.3 | 321.0 | 75\% | -8\% | 4\% | -37\% | -25\% |
| 28. (-6) | Germany | Berlin | 441.6 | 341.4 | 353.7 | 309.3 | 72\% | -13\% | -2\% | -30\% | -17\% |
| 29. (-11) | Canada | Toronto | 265.0 | 339.7 | 375.1 | 306.1 | 71\% | -18\% | -8\% | 16\% | 36\% |
| 30. (-2) | China | Shanghai | 257.5 | 324.9 | 314.3 | 292.3 | 68\% | -7\% | 5\% | 14\% | 34\% |
| 31. $(+5)$ | New Zealand | Auckland | 192.1 | 200.6 | 242.5 | 270.3 | 63\% | 11\% | 26\% | 41\% | 66\% |
| 32. $(+8)$ | India | Mumbai | 164.5 | 186.7 | 196.0 | 268.5 | 62\% | 37\% | 54\% | 63\% | 93\% |
| 33. (+1) | India | Bangalore | 248.9 | 218.4 | 260.1 | 263.6 | 61\% | 1\% | 14\% | 6\% | 25\% |
| 34. (-3) | Germany | Frankfurt | 372.2 | 284.9 | 287.3 | 257.3 | 60\% | -10\% | 1\% | -31\% | -18\% |
| 35. (-8) | Brazil | Sao Paulo | 564.2 | 396.9 | 325.4 | 253.7 | 59\% | -22\% | -12\% | -55\% | -47\% |
| 36. (na) | Canada | Ottawa | NA | NA | NA | 247.3 | 58\% | NA | NA | NA | NA |
| 37. (na) | Brazil | Rio de J aneiro | NA | NA | NA | 243.4 | 57\% | NA | NA | NA | NA |
| 38. (-1) | New Zealand | Wellington | 187.8 | 158.8 | 259.6 | 242.5 | 56\% | -7\% | 5\% | 29\% | 52\% |
| 39. (+2) | India | New Delhi | 314.1 | 219.7 | 219.2 | 227.7 | 53\% | 4\% | 17\% | -28\% | -14\% |
| 40. (-6) | South Africa | J ohannesburg | 272.7 | 245.8 | 271.7 | 227.1 | 53\% | -16\% | -6\% | -17\% | -2\% |
| 41. (-1) | Malaysia | Kuala Lumpur | 250.0 | 243.5 | 232.4 | 216.0 | 50\% | -7\% | 5\% | -14\% | 2\% |
| 42. (na) | Greece | Athens | NA | NA | NA | 202.6 | 47\% | NA | NA | NA | NA |
| 43. (-3) | Belgium | Brussels | NA | NA | 238.4 | 201.7 | 47\% | -15\% | -5\% | NA | NA |
| 44. (na) | Portugal | Lisbon | NA | NA | NA | 198.2 | 46\% | NA | NA | NA | NA |
| 45. (na) | Philippines | Manila | NA | NA | NA | 187.7 | 44\% | NA | NA | NA | NA |
| 46. (na) | Poland | Warsaw | NA | NA | NA | 154.0 | 36\% | NA | NA | NA | NA |
| 47. (na) | Turkey | Istanbul | NA | NA | NA | 141.9 | 33\% | NA | NA | NA | NA |

[^6]Notes: Room rent of King or Queen sized rooms for a day in mid November, in Hyatt Regency. Where Hyatt Regency does not have a property in a prominent location, Park Hyatt Hotels have been considered. In the absence of any Hyatt brand hotels, equivalent rooms in other luxury hotels have been considered. Alternative hotels include the Hotel Barsey by Warwick (Brussels), The Leela Palace (Bangalore), Hotel D'Angleterre (Copenhagen), Hotel Kamp (Helsinki), Rydges Hotels (Auckland and Wellington), Hotel Villa Magna (Madrid), Grand Hotel (Stockholm), Westin Hotel (Cape Town), Four Seasons (Prague), Royal Olympic Hotel (Athens), the Ritz Carlton (Kuala Lumpur), Grand Hotel (Oslo), Mamaison Hotel Le Regina (Warsaw) and Sofitel (Lisbon).

Figure 12: Two liters of Coca-Cola

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Norway | Oslo | 5.37 | 3.56 | 3.99 | 3.95 | 178\% | -1\% | 3\% | -26\% | -24\% |
| 02. (-) | Denmark | Copenhagen | 4.93 | 3.23 | 3.32 | 3.13 | 141\% | -6\% | -2\% | -37\% | -34\% |
| 03. (-) | Finland | Helsinki | 4.64 | 3.63 | 2.93 | 3.05 | 137\% | 4\% | 8\% | -34\% | -32\% |
| 04. (-) | Switzerland | Zurich | 2.89 | 2.81 | 2.81 | 2.79 | 125\% | -1\% | 3\% | -4\% | -1\% |
| 05. (+2) | Australia | Melbourne | 3.23 | 2.67 | 2.56 | 2.60 | 117\% | 2\% | 5\% | -19\% | -17\% |
| 06. (+11) | Belgium | Brussels | 2.80 | 1.89 | 2.22 | 2.58 | 116\% | 16\% | 20\% | -8\% | -5\% |
| 07. (+2) | Sweden | Stockholm | 3.04 | 2.42 | 2.53 | 2.52 | 113\% | 0\% | 3\% | -17\% | -14\% |
| 08. (+2) | Ireland | Dublin | 3.33 | 2.25 | 2.50 | 2.47 | 111\% | -1\% | 2\% | -26\% | -24\% |
| 09. (+4) | Netherlands | Amsterdam | 2.85 | 2.14 | 2.31 | 2.47 | 111\% | 7\% | 10\% | -14\% | -11\% |
| 10. $(+6)$ | United States | San Francisco | 2.45 | 2.05 | 2.22 | 2.42 | 109\% | 9\% | 13\% | -1\% | 2\% |
| 11. (+9) | New Zealand | Wellington | 2.99 | 2.56 | 2.20 | 2.39 | 107\% | 8\% | 12\% | -20\% | -18\% |
| 12. (-6) | United Kingdom | London | 3.19 | 2.79 | 2.63 | 2.36 | 106\% | -10\% | -7\% | -26\% | -24\% |
| 13. (-5) | Australia | Sydney | 3.09 | 3.42 | 2.54 | 2.35 | 106\% | -8\% | -4\% | -24\% | -22\% |
| 14. (-) | United States | New York City | 2.30 | 2.21 | 2.30 | 2.22 | 100\% | -3\% | 0\% | -3\% | 0\% |
| 15. (-3) | France | Paris | 3.06 | 2.24 | 2.31 | 2.22 | 100\% | -4\% | 0\% | -27\% | -25\% |
| 16. (+5) | Greece | Athens | 2.82 | 2.01 | 2.19 | 2.20 | 99\% | 1\% | 4\% | -22\% | -19\% |
| 17. (-6) | New Zealand | Auckland | 3.37 | 2.41 | 2.32 | 2.13 | 96\% | -8\% | -5\% | -37\% | -35\% |
| 18. (-) | Italy | Milan | 2.48 | 2.21 | 2.22 | 2.12 | 95\% | -4\% | -1\% | -14\% | -12\% |
| 19. (-) | Austria | Vienna | 3.10 | 2.27 | 2.20 | 2.11 | 95\% | -4\% | -1\% | -32\% | -30\% |
| 20. (+8) | Hong Kong | Hong Kong | 1.62 | 2.22 | 1.87 | 2.06 | 92\% | 10\% | 14\% | 27\% | 31\% |
| 21. $(+11)$ | Brazil | Sao Paulo | 2.11 | 1.75 | 1.61 | 2.02 | 91\% | 25\% | 29\% | -5\% | -2\% |
| 22. (-7) | J apan | Tokyo | 3.11 | 1.93 | 2.26 | 2.01 | 90\% | -11\% | -8\% | -35\% | -33\% |
| 23. (-18) | United Kingdom | Edinburgh | 3.01 | 2.67 | 2.72 | 2.00 | 90\% | -26\% | -24\% | -34\% | -32\% |
| 24. (-2) | United States | Boston | 1.78 | 1.83 | 1.92 | 1.97 | 89\% | 2\% | 6\% | 10\% | 14\% |
| 25. (+8) | Brazil | Rio de J aneiro | 1.98 | 1.69 | 1.52 | 1.96 | 88\% | 28\% | 33\% | -1\% | 2\% |
| 26. (-1) | United States | Chicago | 1.73 | 1.83 | 1.90 | 1.92 | 86\% | 1\% | 4\% | 11\% | 14\% |
| 27. (-4) | Singapore | Singapore | 2.26 | 2.01 | 1.91 | 1.91 | 86\% | 0\% | 4\% | -16\% | -13\% |
| 28. (-2) | Germany | Berlin | 2.29 | 1.62 | 1.89 | 1.81 | 81\% | -4\% | -1\% | -21\% | -19\% |
| 29. (-2) | Germany | Frankfurt | 2.50 | 2.05 | 1.88 | 1.80 | 81\% | -4\% | -1\% | -28\% | -25\% |
| 30. (-1) | Portugal | Lisbon | 2.25 | 1.86 | 1.87 | 1.77 | 80\% | -5\% | -2\% | -21\% | -19\% |
| 31. (-7) | Canada | Toronto | 1.93 | 1.93 | 1.91 | 1.71 | 77\% | -10\% | -7\% | -11\% | -8\% |
| 32. (-2) | Canada | Ottawa | 1.83 | 1.80 | 1.79 | 1.69 | 76\% | -6\% | -2\% | -8\% | -5\% |
| 33. (-2) | Spain | Madrid | 2.12 | 1.59 | 1.64 | 1.68 | 76\% | 2\% | 6\% | -21\% | -18\% |
| 34. $(+6)$ | Russia | Moscow | 1.73 | 1.39 | 1.18 | 1.54 | 69\% | 31\% | 35\% | -11\% | -8\% |
| 35. (+2) | Poland | Warsaw | 1.79 | 1.57 | 1.37 | 1.39 | 62\% | 1\% | 5\% | -22\% | -20\% |
| 36. (-) | Czech Republic | Prague | 1.78 | 1.36 | 1.39 | 1.31 | 59\% | -6\% | -2\% | -26\% | -24\% |
| 37. (-3) | Philippines | Manila | 1.22 | 1.49 | 1.49 | 1.31 | 59\% | -12\% | -9\% | 7\% | 10\% |
| 38. (+1) | Mexico | Mexico City | 1.49 | 1.39 | 1.20 | 1.28 | 57\% | 7\% | 10\% | -14\% | -11\% |
| 39. $(+3)$ | India | New Delhi | 1.08 | 1.13 | 1.11 | 1.22 | 55\% | 10\% | 14\% | 13\% | 17\% |
| 40. (-2) | China | Shanghai | 1.42 | 1.38 | 1.31 | 1.21 | 54\% | -7\% | -4\% | -15\% | -12\% |
| 41. $(+5)$ | India | Mumbai | 1.00 | 1.03 | 1.03 | 1.20 | 54\% | 17\% | 21\% | 20\% | 24\% |
| 42. $(+1)$ | South Africa | Cape Town | 1.35 | 1.29 | 1.07 | 1.19 | 53\% | 11\% | 15\% | -12\% | -9\% |
| 43. $(-2)$ | South Africa | J ohannesburg | 1.51 | 1.26 | 1.12 | 1.17 | 53\% | 4\% | 8\% | -22\% | -20\% |
| 44. (+1) | India | Bangalore | 1.06 | 1.14 | 1.04 | 1.16 | 52\% | 11\% | 15\% | 10\% | 13\% |
| 45. (-10) | Indonesia | J akarta | 1.47 | 1.26 | 1.43 | 1.14 | 51\% | -20\% | -18\% | -23\% | -20\% |
| 46. (-2) | Turkey | Istanbul | 1.33 | 1.17 | 1.05 | 0.99 | 45\% | -5\% | -2\% | -25\% | -23\% |
| 47. (-) | Malaysia | Kuala Lumpur | 1.27 | 1.04 | 1.02 | 0.95 | 43\% | -7\% | -4\% | -26\% | -23\% |

[^7]Figure 13: Beer in a neighborhood pub (500ml or 1 pint) in expat area

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Norway | Oslo | 12.1 | 9.3 | 10.1 | 9.9 | 134\% | -2\% | -4\% | -18\% | -29\% |
| 02. (-) | Singapore | Singapore | 8.1 | 7.4 | 8.7 | 9.0 | 122\% | 4\% | 1\% | 12\% | -3\% |
| 03. $(+4)$ | Hong Kong | Hong Kong | 7.2 | 5.5 | 7.1 | 7.7 | 104\% | 8\% | 6\% | 6\% | -7\% |
| 04. (+1) | United States | New York City | 6.4 | 7.6 | 7.2 | 7.4 | 100\% | 2\% | 0\% | 15\% | 0\% |
| 05. $(+13)$ | United States | Boston | 5.6 | 5.3 | 6.1 | 7.2 | 98\% | 18\% | 15\% | 29\% | 13\% |
| 06. (-) | France | Paris | 8.3 | 7.1 | 7.2 | 7.0 | 95\% | -2\% | -4\% | -15\% | -26\% |
| 07. (-3) | Sweden | Stockholm | 8.9 | 6.6 | 7.2 | 6.9 | 93\% | -5\% | -7\% | -23\% | -33\% |
| 08. (-5) | Switzerland | Zurich | 7.5 | 6.7 | 7.4 | 6.7 | 91\% | -9\% | -11\% | -10\% | -22\% |
| 09. (+5) | Australia | Melbourne | 6.9 | 6.6 | 6.5 | 6.7 | 91\% | 3\% | 1\% | -3\% | -15\% |
| 10. (+9) | New Zealand | Auckland | 6.5 | 6.3 | 6.0 | 6.5 | 88\% | 10\% | 7\% | 0\% | -12\% |
| 11. (-1) | Denmark | Copenhagen | 7.0 | 6.1 | 6.8 | 6.5 | 88\% | -4\% | -6\% | -7\% | -19\% |
| 12. (-) | Ireland | Dublin | 6.6 | 6.3 | 6.6 | 6.5 | 88\% | -3\% | -5\% | -2\% | -15\% |
| 13. (-5) | United Kingdom | London | 6.5 | 6.4 | 7.0 | 6.4 | 86\% | -9\% | -11\% | -3\% | -15\% |
| 14. (-3) | Finland | Helsinki | 7.5 | 6.8 | 6.7 | 6.3 | 86\% | -6\% | -8\% | -16\% | -27\% |
| 15. (+1) | United States | San Francisco | 5.0 | 6.4 | 6.2 | 6.2 | 84\% | -1\% | -3\% | 24\% | 8\% |
| 16. $(-1)$ | China | Shanghai | 6.4 | 5.1 | 6.3 | 5.9 | 80\% | -6\% | -8\% | -9\% | -20\% |
| 17. (-8) | Italy | Milan | 7.0 | 5.7 | 6.8 | 5.8 | 79\% | -14\% | -16\% | -16\% | -27\% |
| 18. $(+2)$ | New Zealand | Wellington | 6.7 | 6.7 | 5.8 | 5.8 | 78\% | -1\% | -3\% | -14\% | -25\% |
| 19. (+5) | United Kingdom | Edinburgh | 5.7 | 5.9 | 5.4 | 5.8 | 78\% | 6\% | 4\% | 0\% | -13\% |
| 20. (-7) | Spain | Madrid | 3.8 | 5.4 | 6.6 | 5.4 | 73\% | -18\% | -20\% | 42\% | 23\% |
| 21. (+4) | Australia | Sydney | 6.0 | 5.4 | 5.4 | 5.4 | 73\% | -1\% | -3\% | -11\% | -22\% |
| 22. (-5) | United States | Chicago | 5.1 | 6.1 | 6.1 | 5.3 | 72\% | -13\% | -15\% | 5\% | -9\% |
| 23. (-2) | Canada | Toronto | 6.4 | 5.7 | 5.8 | 5.1 | 69\% | -11\% | -13\% | -20\% | -31\% |
| 24. (+7) | Russia | Moscow | 5.9 | 4.2 | 4.1 | 5.0 | 67\% | 20\% | 17\% | -16\% | -27\% |
| 25. (+2) | Canada | Ottawa | 5.3 | 5.4 | 5.0 | 4.9 | 66\% | -3\% | -5\% | -8\% | -20\% |
| 26. (+2) | Greece | Athens | 5.9 | 4.9 | 4.8 | 4.9 | 66\% | 2\% | -1\% | -18\% | -28\% |
| 27. (-1) | Netherlands | Amsterdam | 3.4 | 4.6 | 5.3 | 4.8 | 65\% | -10\% | -12\% | 41\% | 23\% |
| 28. (+8) | India | New Delhi | 3.2 | 3.0 | 3.7 | 4.5 | 61\% | 23\% | 20\% | 39\% | 21\% |
| 29. (+6) | India | Mumbai | 3.0 | 3.2 | 3.8 | 4.4 | 59\% | 15\% | 13\% | 47\% | 28\% |
| 30. (-8) | $J$ apan | Tokyo | 5.0 | 4.4 | 5.5 | 4.3 | 59\% | -22\% | -24\% | -13\% | -24\% |
| 31. (-2) | Indonesia | J akarta | 4.7 | 2.7 | 4.5 | 4.2 | 57\% | -7\% | -9\% | -10\% | -22\% |
| 32. (-9) | Malaysia | Kuala Lumpur | 7.2 | 6.0 | 5.4 | 4.1 | 56\% | -24\% | -26\% | -43\% | -50\% |
| 33. (-) | Austria | Vienna | 4.7 | 3.7 | 4.0 | 4.0 | 54\% | -1\% | -3\% | -14\% | -25\% |
| 34. (+5) | India | Bangalore | 3.2 | 2.8 | 3.0 | 4.0 | 54\% | 34\% | 31\% | 26\% | 10\% |
| 35. (-3) | Belgium | Brussels | 3.5 | 4.0 | 4.1 | 4.0 | 54\% | -4\% | -6\% | 13\% | -2\% |
| 36. (+4) | Brazil | Rio de J aneiro | 3.0 | 2.9 | 2.9 | 3.9 | 53\% | 34\% | 31\% | 28\% | 12\% |
| 37. (-3) | Germany | Frankfurt | 4.6 | 3.7 | 3.9 | 3.8 | 52\% | -2\% | -5\% | -17\% | -28\% |
| 38. (-8) | Turkey | Istanbul | 4.3 | 3.9 | 4.4 | 3.8 | 52\% | -12\% | -14\% | -10\% | -22\% |
| 39. (-1) | Brazil | Sao Paulo | 3.6 | 3.4 | 3.2 | 3.8 | 52\% | 19\% | 16\% | 7\% | -7\% |
| 40. (-3) | Germany | Berlin | 3.9 | 3.2 | 3.5 | 3.6 | 49\% | 3\% | 1\% | -8\% | -19\% |
| 41. (-) | Mexico | Mexico City | 3.1 | 2.6 | 2.6 | 2.7 | 36\% | 3\% | 1\% | -15\% | -26\% |
| 42. $(+4)$ | Philippines | Manila | 1.4 | 1.9 | 1.8 | 2.3 | 32\% | 33\% | 30\% | 66\% | 44\% |
| 43. (-) | Poland | Warsaw | 2.9 | 2.4 | 2.4 | 2.3 | 31\% | -5\% | -7\% | -23\% | -32\% |
| 44. (+1) | South Africa | Cape Town | 1.7 | 1.8 | 1.8 | 2.1 | 29\% | 21\% | 18\% | 24\% | 8\% |
| 45. (-3) | Portugal | Lisbon | 2.9 | 2.7 | 2.5 | 2.0 | 27\% | -20\% | -22\% | -30\% | -39\% |
| 46. (-2) | South Africa | J ohannesburg | 1.8 | 1.8 | 1.8 | 1.7 | 24\% | -2\% | -4\% | -3\% | -15\% |
| 47. (-) | Czech Republic | Prague | 1.6 | 1.2 | 1.3 | 1.3 | 18\% | 1\% | -1\% | -15\% | -26\% |

Source: www.expatistan.com

Figure 14: 1 pair of sport shoes (Nike, Adidas, or equivalent brands)

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. <br> Change <br> (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (+2) | Denmark | Copenhagen | 145.3 | 123.6 | 130.1 | 131.3 | 147\% | 1\% | 7\% | -10\% | -10\% |
| 02. (-1) | Switzerland | Zurich | 149.8 | 141.6 | 145.9 | 127.6 | 143\% | -13\% | -8\% | -15\% | -16\% |
| 03. (-1) | Norway | Oslo | 146.3 | 137.2 | 135.4 | 122.8 | 138\% | -9\% | -4\% | -16\% | -17\% |
| 04. $(+5)$ | Finland | Helsinki | 124.6 | 101.6 | 108.9 | 118.2 | 133\% | 9\% | 15\% | -5\% | -6\% |
| 05. (+18) | Brazil | Sao Paulo | 132.9 | 106.0 | 94.1 | 113.6 | 128\% | 21\% | 28\% | -15\% | -15\% |
| 06. (+6) | Netherlands | Amsterdam | 122.2 | 97.3 | 106.7 | 113.1 | 127\% | 6\% | 12\% | -7\% | -8\% |
| 07. (+6) | Australia | Melbourne | 113.8 | 115.7 | 106.0 | 112.9 | 127\% | 7\% | 13\% | -1\% | -2\% |
| 08. (+9) | Brazil | Rio de J aneiro | 142.0 | 121.8 | 98.5 | 109.9 | 123\% | 12\% | 18\% | -23\% | -23\% |
| 09. (-4) | Sweden | Stockholm | 135.3 | 109.4 | 115.2 | 109.8 | 123\% | -5\% | 1\% | -19\% | -20\% |
| 10. (-3) | France | Paris | 112.3 | 104.3 | 112.7 | 107.9 | 121\% | -4\% | 1\% | -4\% | -5\% |
| 11. (-) | Australia | Sydney | 139.0 | 107.0 | 106.8 | 107.8 | 121\% | 1\% | 7\% | -22\% | -23\% |
| 12. $(-8)$ | China | Shanghai | 112.9 | 129.8 | 115.7 | 104.6 | 117\% | -10\% | -5\% | -7\% | -8\% |
| 13. (+24) | Russia | Moscow | 115.7 | 90.8 | 77.8 | 104.4 | 117\% | 34\% | 42\% | -10\% | -11\% |
| 14. (+14) | United States | San Francisco | 80.6 | 85.4 | 89.9 | 103.5 | 116\% | 15\% | 22\% | 28\% | 27\% |
| 15. (+3) | Ireland | Dublin | 101.5 | 99.8 | 98.3 | 103.5 | 116\% | 5\% | 11\% | 2\% | 1\% |
| 16. (-6) | New Zealand | Auckland | 129.0 | 100.9 | 108.0 | 101.9 | 114\% | -6\% | 0\% | -21\% | -22\% |
| 17. (-3) | New Zealand | Wellington | 151.3 | 128.0 | 105.9 | 100.9 | 113\% | -5\% | 1\% | -33\% | -34\% |
| 18. (-2) | United Kingdom | London | 107.0 | 96.1 | 99.3 | 100.4 | 113\% | 1\% | 7\% | -6\% | -7\% |
| 19. (+2) | Singapore | Singapore | 102.7 | 107.1 | 94.9 | 99.9 | 112\% | 5\% | 11\% | -3\% | -4\% |
| 20. (-12) | Italy | Milan | 119.4 | 102.5 | 109.2 | 98.6 | 111\% | -10\% | -5\% | -17\% | -18\% |
| 21. (-2) | Greece | Athens | 99.6 | 83.1 | 98.3 | 97.1 | 109\% | -1\% | 4\% | -2\% | -3\% |
| 22. (+7) | Hong Kong | Hong Kong | 92.6 | 94.3 | 89.3 | 96.4 | 108\% | 8\% | 14\% | 4\% | 3\% |
| 23. (+3) | Germany | Berlin | 119.4 | 105.5 | 92.6 | 95.3 | 107\% | 3\% | 9\% | -20\% | -21\% |
| 24. $(+11)$ | Portugal | Lisbon | 106.2 | 89.0 | 83.4 | 95.0 | 107\% | 14\% | 20\% | -11\% | -11\% |
| 25. (-19) | Austria | Vienna | 115.9 | 125.7 | 113.6 | 93.9 | 105\% | -17\% | -13\% | -19\% | -20\% |
| 26. (-2) | United States | New York City | 88.3 | 85.7 | 94.0 | 89.0 | 100\% | -5\% | 0\% | 1\% | 0\% |
| 27. (-) | Germany | Frankfurt | 117.1 | 83.0 | 91.9 | 88.3 | 99\% | -4\% | 1\% | -25\% | -25\% |
| 28. (+2) | Philippines | Manila | 95.8 | 85.5 | 88.7 | 88.0 | 99\% | -1\% | 5\% | -8\% | -9\% |
| 29. $(+5)$ | United States | Boston | 82.0 | 87.4 | 85.7 | 86.9 | 98\% | 1\% | 7\% | 6\% | 5\% |
| 30. (+13) | South Africa | J ohannesburg | 76.4 | 72.1 | 74.0 | 85.6 | 96\% | 16\% | 22\% | 12\% | 11\% |
| 31. (-6) | Spain | Madrid | 110.6 | 76.8 | 93.1 | 85.2 | 96\% | -8\% | -3\% | -23\% | -24\% |
| 32. (-1) | Canada | Ottawa | 95.2 | 84.2 | 87.6 | 84.6 | 95\% | -3\% | 2\% | -11\% | -12\% |
| 33. (-) | Czech Republic | Prague | 76.1 | 75.9 | 85.8 | 84.5 | 95\% | -1\% | 4\% | 11\% | 10\% |
| 34. (-2) | Canada | Toronto | 91.7 | 95.4 | 86.4 | 84.4 | 95\% | -2\% | 3\% | -8\% | -9\% |
| 35. (-20) | United States | Chicago | 85.9 | 92.5 | 102.0 | 83.0 | 93\% | -19\% | -14\% | -3\% | -4\% |
| 36. (+3) | South Africa | Cape Town | 65.2 | 76.8 | 76.6 | 81.8 | 92\% | 7\% | 13\% | 25\% | 24\% |
| 37. (-1) | United Kingdom | Edinburgh | 107.6 | 89.4 | 78.5 | 80.3 | 90\% | 2\% | 8\% | -25\% | -26\% |
| 38. (-16) | J apan | Tokyo | 81.4 | 62.8 | 94.4 | 79.2 | 89\% | -16\% | -11\% | -3\% | -3\% |
| 39. (+5) | Mexico | Mexico City | 85.7 | 73.8 | 71.0 | 78.9 | 89\% | 11\% | 17\% | -8\% | -9\% |
| 40. (-20) | Belgium | Brussels | 116.5 | 99.2 | 97.0 | 78.0 | 88\% | -20\% | -15\% | -33\% | -34\% |
| 41. $(-1)$ | Malaysia | Kuala Lumpur | 92.8 | 77.8 | 75.6 | 75.5 | 85\% | 0\% | 5\% | -19\% | -19\% |
| 42. $(-1)$ | Turkey | Istanbul | 64.8 | 66.4 | 75.5 | 74.2 | 83\% | -2\% | 4\% | 15\% | 14\% |
| 43. (-5) | Poland | Warsaw | 94.0 | 73.7 | 77.2 | 73.8 | 83\% | -4\% | 1\% | -21\% | -22\% |
| 44. $(-2)$ | Indonesia | J akarta | 57.1 | 69.0 | 74.4 | 69.1 | 78\% | -7\% | -2\% | 21\% | 20\% |
| 45. (+1) | India | New Delhi | 56.4 | 64.8 | 60.8 | 64.8 | 73\% | 7\% | 13\% | 15\% | 14\% |
| 46. (+1) | India | Bangalore | 57.0 | 54.5 | 53.2 | 63.0 | 71\% | 18\% | 25\% | 11\% | 10\% |
| 47. (-2) | India | Mumbai | 59.5 | 50.8 | 61.8 | 57.3 | 64\% | -7\% | -2\% | -4\% | -5\% |

[^8]Figure 15: 1 pair of jeans (Levis 501 or similar)

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (+1) | Denmark | Copenhagen | 138.3 | 105.4 | 118.7 | 120.6 | 222\% | 2\% | 3\% | -13\% | -8\% |
| 02. (+2) | Norway | Oslo | 149.3 | 121.4 | 111.7 | 114.1 | 210\% | 2\% | 3\% | -24\% | -19\% |
| 03. (+23) | Russia | Moscow | 130.9 | 84.6 | 79.2 | 113.6 | 209\% | 43\% | 45\% | -13\% | -8\% |
| 04. (-3) | Switzerland | Zurich | 144.3 | 143.6 | 123.2 | 113.3 | 209\% | -8\% | -7\% | -21\% | -17\% |
| 05. (+2) | Sweden | Stockholm | 146.2 | 89.3 | 104.4 | 110.5 | 204\% | 6\% | 7\% | -24\% | -20\% |
| 06. (-1) | Netherlands | Amsterdam | 137.4 | 96.9 | 108.0 | 106.2 | 196\% | -2\% | 0\% | -23\% | -18\% |
| 07. (-1) | France | Paris | 130.1 | 114.2 | 104.5 | 103.8 | 191\% | -1\% | 1\% | -20\% | -16\% |
| 08. (+5) | Belgium | Brussels | 129.3 | 97.4 | 96.0 | 99.3 | 183\% | 3\% | 5\% | -23\% | -19\% |
| 09. (+8) | Finland | Helsinki | 123.6 | 99.8 | 89.9 | 99.2 | 183\% | 10\% | 12\% | -20\% | -15\% |
| 10. $(+10)$ | Germany | Berlin | 116.7 | 94.3 | 88.5 | 99.0 | 182\% | 12\% | 13\% | -15\% | -10\% |
| 11. $(-2)$ | Germany | Frankfurt | 126.9 | 95.9 | 101.5 | 95.2 | 175\% | -6\% | -5\% | -25\% | -21\% |
| 12. $(-4)$ | Ireland | Dublin | 122.2 | 98.5 | 101.7 | 94.0 | 173\% | -8\% | -6\% | -23\% | -19\% |
| 13. $(-2)$ | Italy | Milan | 125.0 | 93.6 | 100.2 | 90.8 | 167\% | -9\% | -8\% | -27\% | -23\% |
| 14. $(+13)$ | Czech Republic | Prague | 97.9 | 68.6 | 76.2 | 90.7 | 167\% | 19\% | 21\% | -7\% | -2\% |
| 15. $(-1)$ | Portugal | Lisbon | 111.2 | 87.0 | 92.9 | 89.4 | 165\% | -4\% | -3\% | -20\% | -15\% |
| 16. (-13) | China | Shanghai | 98.9 | 112.8 | 116.3 | 88.7 | 163\% | -24\% | -23\% | -10\% | -5\% |
| 17. (+11) | Spain | Madrid | 124.6 | 85.7 | 75.7 | 88.3 | 163\% | 17\% | 18\% | -29\% | -25\% |
| 18. $(+5)$ | Singapore | Singapore | 95.8 | 106.7 | 82.3 | 87.9 | 162\% | 7\% | 8\% | -8\% | -3\% |
| 19. (-7) | United Kingdom | London | 108.7 | 96.1 | 99.3 | 87.5 | 161\% | -12\% | -11\% | -19\% | -15\% |
| 20. (-5) | New Zealand | Wellington | 110.9 | 87.8 | 92.8 | 86.9 | 160\% | -6\% | -5\% | -22\% | -17\% |
| 21. (-5) | United Kingdom | Edinburgh | 103.9 | 90.5 | 91.2 | 82.7 | 152\% | -9\% | -8\% | -20\% | -16\% |
| 22. $(-3)$ | Greece | Athens | 113.8 | 87.6 | 89.0 | 81.9 | 151\% | -8\% | -7\% | -28\% | -24\% |
| 23. (+2) | Australia | Melbourne | 93.6 | 81.6 | 81.9 | 80.8 | 149\% | -1\% | 0\% | -14\% | -9\% |
| 24. (-6) | J apan | Tokyo | 73.7 | 55.5 | 89.8 | 80.5 | 148\% | -10\% | -9\% | 9\% | 16\% |
| 25. (-4) | Hong Kong | Hong Kong | 83.2 | 91.7 | 86.8 | 75.7 | 139\% | -13\% | -12\% | -9\% | -4\% |
| 26. (+3) | Poland | Warsaw | 109.7 | 69.6 | 74.9 | 75.1 | 138\% | 0\% | 2\% | -32\% | -28\% |
| 27. (-5) | Australia | Sydney | 100.7 | 84.9 | 82.5 | 74.0 | 136\% | -10\% | -9\% | -27\% | -22\% |
| 28. (-18) | Austria | Vienna | 112.3 | 96.7 | 100.3 | 73.9 | 136\% | -26\% | -25\% | -34\% | -30\% |
| 29. (-5) | New Zealand | Auckland | 114.8 | 98.8 | 82.1 | 72.6 | 134\% | -12\% | -10\% | -37\% | -33\% |
| 30. (+1) | Brazil | Sao Paulo | 115.7 | 75.6 | 60.2 | 71.1 | 131\% | 18\% | 20\% | -39\% | -35\% |
| 31. $(+2)$ | Brazil | Rio de J aneiro | 99.2 | 73.3 | 58.3 | 69.2 | 128\% | 19\% | 20\% | -30\% | -26\% |
| 32. $(+9)$ | United States | San Francisco | 58.0 | 63.2 | 51.2 | 60.8 | 112\% | 19\% | 20\% | 5\% | 11\% |
| 33. (+1) | South Africa | Cape Town | 62.6 | 51.5 | 55.3 | 60.2 | 111\% | 9\% | 10\% | -4\% | 2\% |
| 34. (+6) | South Africa | J ohannesburg | 75.4 | 58.0 | 51.3 | 59.2 | 109\% | 15\% | 17\% | -22\% | -17\% |
| 35. (-5) | Malaysia | Kuala Lumpur | 72.7 | 69.5 | 62.2 | 58.4 | 108\% | -6\% | -5\% | -20\% | -15\% |
| 36. (-) | United States | New York City | 57.4 | 51.8 | 55.0 | 54.3 | 100\% | -1\% | 0\% | -5\% | 0\% |
| 37. (+5) | Canada | Toronto | 54.7 | 44.0 | 47.3 | 51.1 | 94\% | 8\% | 9\% | -7\% | -1\% |
| 38. (-) | Turkey | Istanbul | 68.6 | 52.6 | 54.0 | 50.7 | 93\% | -6\% | -5\% | -26\% | -22\% |
| 39. (-) | United States | Boston | 44.6 | 44.5 | 51.4 | 50.5 | 93\% | -2\% | 0\% | 13\% | 20\% |
| 40. (-5) | Canada | Ottawa | 51.2 | 48.5 | 55.2 | 49.8 | 92\% | -10\% | -9\% | -3\% | 3\% |
| 41. (-9) | United States | Chicago | 54.5 | 43.5 | 59.5 | 49.0 | 90\% | -18\% | -17\% | -10\% | -5\% |
| 42. (+2) | Mexico | Mexico City | 57.2 | 45.5 | 44.8 | 48.5 | 89\% | 8\% | 10\% | -15\% | -10\% |
| 43. (-6) | Philippines | Manila | 62.9 | 67.5 | 54.8 | 47.7 | 88\% | -13\% | -12\% | -24\% | -20\% |
| 44. (-1) | Indonesia | J akarta | 48.2 | 54.0 | 46.0 | 44.6 | 82\% | -3\% | -2\% | -8\% | -2\% |
| 45. (+2) | India | Bangalore | 41.5 | 42.0 | 31.8 | 41.3 | 76\% | 30\% | 32\% | 0\% | 5\% |
| 46. (-1) | India | New Delhi | 46.6 | 40.2 | 40.8 | 39.8 | 73\% | -2\% | -1\% | -15\% | -10\% |
| 47. (-1) | India | Mumbai | 35.0 | 34.8 | 37.7 | 39.6 | 73\% | 5\% | 6\% | 13\% | 20\% |

[^9]Figure 16: M onthly ticket public transport

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. <br> Change <br> (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | United Kingdom | London | 213.6 | 196.2 | 186.9 | 174.0 | 148\% | -7\% | -7\% | -19\% | -22\% |
| 02. (-) | Ireland | Dublin | 146.9 | 130.5 | 129.9 | 131.6 | 112\% | 1\% | 1\% | -10\% | -14\% |
| 03. (+3) | New Zealand | Auckland | 130.5 | 100.7 | 106.8 | 122.9 | 104\% | 15\% | 15\% | -6\% | -10\% |
| 04. (-1) | United States | New York City | 112.9 | 112.1 | 117.4 | 117.7 | 100\% | 0\% | 0\% | 4\% | 0\% |
| 05. (+2) | J apan | Tokyo | 96.3 | 95.0 | 105.6 | 110.7 | 94\% | 5\% | 5\% | 15\% | 10\% |
| 06. (+5) | Netherlands | Amsterdam | 119.3 | 97.3 | 99.6 | 108.6 | 92\% | 9\% | 9\% | -9\% | -13\% |
| 07. (+1) | Australia | Sydney | 143.6 | 98.5 | 103.0 | 108.4 | 92\% | 5\% | 5\% | -25\% | -28\% |
| 08. (+5) | Switzerland | Zurich | 89.7 | 93.2 | 95.6 | 106.2 | 90\% | 11\% | 11\% | 18\% | 14\% |
| 09. (-4) | Australia | Melbourne | 114.6 | 110.1 | 107.3 | 105.5 | 90\% | -2\% | -2\% | -8\% | -12\% |
| 10. (-6) | Canada | Toronto | 115.7 | 108.2 | 109.4 | 102.7 | 87\% | -6\% | -6\% | -11\% | -15\% |
| 11. (-2) | United States | Chicago | 93.2 | 107.5 | 103.0 | 102.1 | 87\% | -1\% | -1\% | 10\% | 5\% |
| 12. $(+2)$ | New Zealand | Wellington | 114.1 | 88.6 | 92.7 | 101.2 | 86\% | 9\% | 9\% | -11\% | -15\% |
| 13. (-1) | Sweden | Stockholm | 118.2 | 91.6 | 98.3 | 90.7 | 77\% | -8\% | -8\% | -23\% | -26\% |
| 14. (-4) | Germany | Frankfurt | 108.3 | 90.3 | 100.5 | 88.5 | 75\% | -12\% | -12\% | -18\% | -22\% |
| 15. (-) | Germany | Berlin | 103.8 | 84.7 | 88.2 | 87.2 | 74\% | -1\% | -1\% | -16\% | -19\% |
| 16. (-) | United States | San Francisco | 69.3 | 76.2 | 88.2 | 86.1 | 73\% | -2\% | -3\% | 24\% | 19\% |
| 17. (+3) | United States | Boston | 71.9 | 76.4 | 76.1 | 83.9 | 71\% | 10\% | 10\% | 17\% | 12\% |
| 18. (-) | Norway | Oslo | 111.0 | 89.7 | 84.7 | 82.2 | 70\% | -3\% | -3\% | -26\% | -29\% |
| 19. (-2) | Canada | Ottawa | 87.9 | 79.9 | 85.1 | 80.8 | 69\% | -5\% | -5\% | -8\% | -12\% |
| 20. (-1) | France | Paris | 89.8 | 73.2 | 78.2 | 77.9 | 66\% | 0\% | -1\% | -13\% | -17\% |
| 21. (+1) | Denmark | Copenhagen | 85.7 | 63.3 | 74.1 | 77.6 | 66\% | 5\% | 5\% | -9\% | -13\% |
| 22. (-1) | United Kingdom | Edinburgh | 87.4 | 77.7 | 74.1 | 70.6 | 60\% | -5\% | -5\% | -19\% | -23\% |
| 23. (+1) | Hong Kong | Hong Kong | 65.8 | 72.4 | 72.4 | 65.6 | 56\% | -9\% | -10\% | 0\% | -4\% |
| 24. (+1) | Singapore | Singapore | 73.9 | 78.8 | 63.4 | 63.9 | 54\% | 1\% | 1\% | -14\% | -17\% |
| 25. (+7) | Brazil | Rio de J aneiro | 70.3 | 61.2 | 49.8 | 62.5 | 53\% | 25\% | 25\% | -11\% | -15\% |
| 26. (+5) | Brazil | Sao Paulo | 70.8 | 63.2 | 50.5 | 61.7 | 52\% | 22\% | 22\% | -13\% | -16\% |
| 27. (-4) | South Africa | J ohannesburg | 101.5 | 68.4 | 74.0 | 61.5 | 52\% | -17\% | -17\% | -39\% | -42\% |
| 28. (-2) | Spain | Madrid | 77.1 | 61.0 | 61.5 | 57.7 | 49\% | -6\% | -6\% | -25\% | -28\% |
| 29. (-1) | Finland | Helsinki | 62.7 | 51.0 | 58.0 | 56.9 | 48\% | -2\% | -2\% | -9\% | -13\% |
| 30. (-3) | Belgium | Brussels | 69.7 | 52.4 | 58.7 | 54.9 | 47\% | -6\% | -7\% | -21\% | -24\% |
| 31. (-1) | Austria | Vienna | 66.5 | 49.8 | 53.2 | 50.2 | 43\% | -6\% | -6\% | -25\% | -28\% |
| 32. (-3) | Turkey | Istanbul | 67.5 | 59.2 | 57.7 | 48.9 | 42\% | -15\% | -15\% | -28\% | -31\% |
| 33. (-) | Portugal | Lisbon | 50.8 | 40.4 | 45.7 | 43.2 | 37\% | -6\% | -6\% | -15\% | -18\% |
| 34. (-) | Italy | Milan | 44.5 | 37.3 | 38.0 | 36.9 | 31\% | -3\% | -3\% | -17\% | -21\% |
| 35. (+6) | Russia | Moscow | 42.2 | 38.0 | 27.0 | 34.8 | 30\% | 29\% | 28\% | -18\% | -21\% |
| 36. (-) | Greece | Athens | 62.4 | 36.4 | 34.9 | 33.5 | 28\% | -4\% | -4\% | -46\% | -48\% |
| 37. (-) | Philippines | Manila | 23.7 | 27.0 | 31.1 | 32.2 | 27\% | 4\% | 3\% | 36\% | 30\% |
| 38. (-) | Malaysia | Kuala Lumpur | 27.6 | 31.2 | 28.4 | 32.0 | 27\% | 13\% | 13\% | 16\% | 11\% |
| 39. (-4) | China | Shanghai | 23.0 | 34.7 | 36.4 | 30.7 | 26\% | -16\% | -16\% | 33\% | 28\% |
| 40. (-1) | Poland | Warsaw | 34.5 | 29.7 | 28.0 | 28.9 | 25\% | 3\% | 3\% | -16\% | -20\% |
| 41. ( +3 ) | South Africa | Cape Town | 20.6 | 33.9 | 20.6 | 28.7 | 24\% | 39\% | 39\% | 39\% | 33\% |
| 42. (-2) | India | Bangalore | 24.0 | 24.5 | 27.2 | 27.7 | 24\% | 2\% | 2\% | 16\% | 11\% |
| 43. (+2) | Mexico | Mexico City | 20.0 | 24.7 | 19.7 | 23.1 | 20\% | 17\% | 17\% | 15\% | 10\% |
| 44. (-2) | Indonesia | J akarta | 31.0 | 13.9 | 25.4 | 22.8 | 19\% | -10\% | -10\% | -26\% | -29\% |
| 45. (-2) | Czech Republic | Prague | 28.3 | 22.0 | 22.8 | 21.7 | 18\% | -5\% | -5\% | -23\% | -27\% |
| 46. (+1) | India | New Delhi | 12.7 | 17.8 | 17.6 | 20.6 | 17\% | 17\% | 17\% | 62\% | 55\% |
| 47. (-1) | India | Mumbai | 11.8 | 12.0 | 18.1 | 14.6 | 12\% | -19\% | -20\% | 24\% | 19\% |

[^10]Figure 17: New mid-size car (equivalent to Volkswagen Golf), no extras

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Singapore | Singapore | 126,792 | 116,394 | 99,185 | 90,486 | 379\% | -9\% | 2\% | -29\% | -31\% |
| 02. (-) | Denmark | Copenhagen | 57,097 | 45,333 | 50,632 | 48,064 | 201\% | -5\% | 6\% | -16\% | -19\% |
| 03. (-) | Norway | Oslo | 55,279 | 36,526 | 40,412 | 36,431 | 152\% | -10\% | 1\% | -34\% | -36\% |
| 04. (-) | Malaysia | Kuala Lumpur | 55,889 | 52,341 | 37,077 | 36,279 | 152\% | -2\% | 9\% | -35\% | -37\% |
| 05. (+4) | Indonesia | J akarta | 33,958 | 28,723 | 32,377 | 36,223 | 152\% | 12\% | 25\% | 7\% | 3\% |
| 06. (+2) | Portugal | Lisbon | 40,462 | 30,146 | 32,709 | 33,601 | 141\% | 3\% | 15\% | -17\% | -20\% |
| 07. (+6) | Finland | Helsinki | 39,967 | 32,411 | 30,924 | 31,400 | 131\% | 2\% | 13\% | -21\% | -24\% |
| 08. (-2) | Hong Kong | Hong Kong | 35,101 | 30,882 | 34,372 | 30,840 | 129\% | -10\% | 0\% | -12\% | -15\% |
| 09. $(+3)$ | Switzerland | Zurich | 39,784 | 28,219 | 31,037 | 30,519 | 128\% | -2\% | 10\% | -23\% | -26\% |
| 10. $(+6)$ | Ireland | Dublin | 33,098 | 28,448 | 29,651 | 29,318 | 123\% | -1\% | 10\% | -11\% | -14\% |
| 11. $(-1)$ | Philippines | Manila | 32,988 | 31,618 | 32,366 | 29,177 | 122\% | -10\% | 1\% | -12\% | -14\% |
| 12. (-5) | Netherlands | Amsterdam | 37,169 | 29,942 | 33,352 | 28,708 | 120\% | -14\% | -4\% | -23\% | -25\% |
| 13. $(+23)$ | Brazil | Rio de J aneiro | 22,163 | 20,653 | 21,672 | 27,733 | 116\% | 28\% | 43\% | 25\% | 21\% |
| 14. (-3) | Sweden | Stockholm | 34,044 | 25,723 | 31,218 | 27,094 | 113\% | -13\% | -3\% | -20\% | -23\% |
| 15. $(-1)$ | Turkey | Istanbul | 32,285 | 34,147 | 30,876 | 26,938 | 113\% | -13\% | -3\% | -17\% | -19\% |
| 16. $(+18)$ | Brazil | Sao Paulo | 30,903 | 24,781 | 22,528 | 26,901 | 113\% | 19\% | 33\% | -13\% | -16\% |
| 17. (+8) | Greece | Athens | 33,884 | 22,633 | 26,183 | 26,771 | 112\% | 2\% | 14\% | -21\% | -24\% |
| 18. $(-1)$ | New Zealand | Wellington | 31,166 | 25,963 | 28,589 | 26,638 | 111\% | -7\% | 4\% | -15\% | -17\% |
| 19. (-4) | France | Paris | 35,216 | 25,798 | 30,604 | 26,611 | 111\% | -13\% | -3\% | -24\% | -27\% |
| 20. (+7) | Belgium | Brussels | 30,241 | 22,978 | 24,611 | 26,236 | 110\% | 7\% | 19\% | -13\% | -16\% |
| 21. $(+3)$ | Italy | Milan | 31,573 | 23,400 | 26,450 | 26,080 | 109\% | -1\% | 10\% | -17\% | -20\% |
| 22. (-) | New Zealand | Auckland | 32,934 | 30,154 | 26,832 | 24,960 | 104\% | -7\% | 4\% | -24\% | -27\% |
| 23. $(+17)$ | South Africa | J ohannesburg | 25,701 | 23,941 | 20,411 | 24,466 | 102\% | 20\% | 34\% | -5\% | -8\% |
| 24. (-3) | United Kingdom | London | 37,794 | 27,826 | 27,268 | 24,340 | 102\% | -11\% | 0\% | -36\% | -38\% |
| 25. (+4) | United Kingdom | Edinburgh | 28,541 | 22,840 | 23,707 | 24,197 | 101\% | 2\% | 14\% | -15\% | -18\% |
| 26. (-3) | United States | New York City | 23,113 | 23,487 | 26,652 | 23,901 | 100\% | -10\% | 0\% | 3\% | 0\% |
| 27. (-8) | Austria | Vienna | 29,129 | 23,974 | 27,960 | 23,790 | 100\% | -15\% | -5\% | -18\% | -21\% |
| 28. $(+15)$ | South Africa | Cape Town | 26,682 | 22,797 | 19,605 | 23,766 | 99\% | 21\% | 35\% | -11\% | -14\% |
| 29. (-3) | Germany | Berlin | 32,072 | 27,786 | 24,917 | 23,657 | 99\% | -5\% | 6\% | -26\% | -29\% |
| 30. (-12) | J apan | Tokyo | 24,375 | 22,884 | 28,250 | 23,413 | 98\% | -17\% | -8\% | -4\% | -7\% |
| 31. $(+13)$ | Russia | Moscow | 23,110 | 16,039 | 16,344 | 23,255 | 97\% | 42\% | 59\% | 1\% | -3\% |
| 32. (-4) | Spain | Madrid | 31,212 | 23,396 | 24,232 | 23,088 | 97\% | -5\% | 6\% | -26\% | -28\% |
| 33. (-13) | United States | Chicago | 22,378 | 21,813 | 27,450 | 22,887 | 96\% | -17\% | -7\% | 2\% | -1\% |
| 34. (-29) | China | Shanghai | 33,731 | 28,764 | 35,410 | 22,765 | 95\% | -36\% | -28\% | -33\% | -35\% |
| 35. (-5) | Australia | Sydney | 31,022 | 26,656 | 23,690 | 22,452 | 94\% | -5\% | 6\% | -28\% | -30\% |
| 36. (-4) | United States | San Francisco | 26,700 | 29,576 | 22,740 | 22,265 | 93\% | -2\% | 9\% | -17\% | -19\% |
| 37. (-6) | United States | Boston | 22,291 | 22,077 | 23,225 | 21,511 | 90\% | -7\% | 3\% | -4\% | -7\% |
| 38. (-) | Australia | Melbourne | 30,600 | 27,205 | 20,625 | 21,481 | 90\% | 4\% | 16\% | -30\% | -32\% |
| 39. $(+3)$ | Poland | Warsaw | 27,705 | 23,053 | 19,933 | 20,587 | 86\% | 3\% | 15\% | -26\% | -28\% |
| 40. (-5) | Czech Republic | Prague | 23,919 | 19,974 | 21,944 | 20,403 | 85\% | -7\% | 4\% | -15\% | -18\% |
| 41. (-4) | Germany | Frankfurt | 33,469 | 21,353 | 20,948 | 19,622 | 82\% | -6\% | 4\% | -41\% | -43\% |
| 42. (-3) | Canada | Toronto | 22,982 | 21,864 | 20,509 | 18,581 | 78\% | -9\% | 1\% | -19\% | -22\% |
| 43. (-10) | Canada | Ottawa | 19,402 | 19,390 | 22,692 | 17,867 | 75\% | -21\% | -12\% | -8\% | -11\% |
| 44. (-3) | India | Bangalore | 13,801 | 12,585 | 20,263 | 15,534 | 65\% | -23\% | -15\% | 13\% | 9\% |
| 45. (-) | India | Mumbai | 12,631 | 11,190 | 14,846 | 14,660 | 61\% | -1\% | 10\% | 16\% | 12\% |
| 46. (-) | Mexico | Mexico City | 20,129 | 15,229 | 14,050 | 13,847 | 58\% | -1\% | 10\% | -31\% | -33\% |
| 47. (-) | India | New Delhi | 13,889 | 12,546 | 12,367 | 12,982 | 54\% | 5\% | 17\% | -7\% | -10\% |

[^11]Figure 18: 1 liter (1/4 gallon) of gas

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To <br> NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Hong Kong | Hong Kong | 2.29 | 2.19 | 1.98 | 1.91 | 279\% | -4\% | -2\% | -17\% | 31\% |
| 02. (+1) | Netherlands | Amsterdam | 2.41 | 1.86 | 1.79 | 1.70 | 249\% | -5\% | -3\% | -29\% | 11\% |
| 03. (-1) | Norway | Oslo | 2.49 | 1.91 | 1.80 | 1.69 | 248\% | -6\% | -4\% | -32\% | 6\% |
| 04. (+8) | Portugal | Lisbon | 2.24 | 1.66 | 1.57 | 1.61 | 235\% | 2\% | 4\% | -28\% | 13\% |
| 05. (-1) | Italy | Milan | 2.42 | 1.68 | 1.71 | 1.60 | 235\% | -6\% | -4\% | -34\% | 4\% |
| 06. (+1) | Sweden | Stockholm | 2.19 | 1.64 | 1.65 | 1.58 | 232\% | -4\% | -2\% | -28\% | 13\% |
| 07. (-1) | Finland | Helsinki | 2.28 | 1.75 | 1.66 | 1.57 | 230\% | -5\% | -3\% | -31\% | 8\% |
| 08. (+2) | Greece | Athens | 2.33 | 1.75 | 1.60 | 1.56 | 228\% | -3\% | -1\% | -33\% | 5\% |
| 09. (+5) | Switzerland | Zurich | 2.08 | 1.76 | 1.53 | 1.53 | 223\% | 0\% | 2\% | -27\% | 15\% |
| 10. (-5) | United Kingdom | London | 2.29 | 1.90 | 1.66 | 1.49 | 219\% | -10\% | -8\% | -35\% | 2\% |
| 11. (-2) | Denmark | Copenhagen | 2.19 | 1.66 | 1.60 | 1.49 | 218\% | -7\% | -5\% | -32\% | 7\% |
| 12. (-1) | Singapore | Singapore | 1.82 | 1.60 | 1.58 | 1.48 | 216\% | -6\% | -4\% | -19\% | 27\% |
| 13. (+4) | Germany | Frankfurt | 2.26 | 1.58 | 1.49 | 1.47 | 215\% | -1\% | 1\% | -35\% | 2\% |
| 14. (-1) | United Kingdom | Edinburgh | 2.66 | 1.88 | 1.55 | 1.46 | 214\% | -6\% | -4\% | -45\% | -14\% |
| 15. (-) | Ireland | Dublin | 2.20 | 1.59 | 1.51 | 1.45 | 212\% | -4\% | -2\% | -34\% | 3\% |
| 16. (+2) | Germany | Berlin | 2.17 | 1.62 | 1.49 | 1.43 | 210\% | -4\% | -2\% | -34\% | 3\% |
| 17. (+2) | France | Paris | 2.15 | 1.51 | 1.48 | 1.42 | 208\% | -4\% | -2\% | -34\% | 4\% |
| 18. (-10) | Turkey | Istanbul | 2.33 | 1.78 | 1.61 | 1.39 | 203\% | -14\% | -12\% | -40\% | -7\% |
| 19. (-3) | Belgium | Brussels | 2.11 | 1.48 | 1.49 | 1.36 | 200\% | -9\% | -7\% | -35\% | 1\% |
| 20. (+1) | New Zealand | Wellington | 1.89 | 1.61 | 1.37 | 1.34 | 196\% | -2\% | 0\% | -29\% | 11\% |
| 21. (+1) | Spain | Madrid | 1.96 | 1.46 | 1.36 | 1.28 | 187\% | -6\% | -4\% | -35\% | 2\% |
| 22. (+1) | New Zealand | Auckland | 1.88 | 1.58 | 1.32 | 1.27 | 187\% | -3\% | -1\% | -32\% | 6\% |
| 23. (+6) | Brazil | Rio de J aneiro | 1.35 | 1.13 | 1.06 | 1.26 | 184\% | 19\% | 22\% | -7\% | 46\% |
| 24. (-) | Czech Republic | Prague | 1.83 | 1.39 | 1.29 | 1.22 | 179\% | -6\% | -4\% | -33\% | 4\% |
| 25. (-5) | Austria | Vienna | 1.91 | 1.40 | 1.39 | 1.21 | 177\% | -13\% | -12\% | -37\% | -1\% |
| 26. (-1) | Poland | Warsaw | 1.83 | 1.41 | 1.20 | 1.20 | 176\% | 0\% | 2\% | -34\% | 3\% |
| 27. (-1) | $J$ apan | Tokyo | 1.47 | 1.29 | 1.18 | 1.14 | 167\% | -3\% | -1\% | -23\% | 21\% |
| 28. (+2) | China | Shanghai | 1.45 | 1.24 | 1.00 | 1.14 | 166\% | 13\% | 16\% | -22\% | 23\% |
| 29. (+5) | Brazil | Sao Paulo | 1.27 | 1.02 | 0.93 | 1.13 | 165\% | 20\% | 23\% | -12\% | 38\% |
| 30. (-3) | India | Mumbai | 1.29 | 1.15 | 1.09 | 1.12 | 164\% | 3\% | 5\% | -13\% | 36\% |
| 31. (+1) | India | Bangalore | 1.30 | 1.17 | 0.98 | 1.10 | 162\% | 13\% | 15\% | -15\% | 34\% |
| 32. $(-1)$ | India | New Delhi | 1.20 | 1.10 | 0.99 | 1.05 | 153\% | 6\% | 8\% | -13\% | 36\% |
| 33. (+3) | South Africa | J ohannesburg | 1.23 | 1.05 | 0.90 | 0.99 | 146\% | 10\% | 12\% | -19\% | 26\% |
| 34. (+4) | South Africa | Cape Town | 1.24 | 1.05 | 0.87 | 0.96 | 141\% | 11\% | 13\% | -22\% | 22\% |
| 35. (-7) | Australia | Sydney | 1.41 | 1.17 | 1.07 | 0.95 | 139\% | -11\% | -9\% | -33\% | 5\% |
| 36. (-3) | Australia | Melbourne | 1.40 | 1.12 | 0.98 | 0.93 | 136\% | -5\% | -3\% | -34\% | 4\% |
| 37. (-) | Philippines | Manila | 1.18 | 1.09 | 0.89 | 0.86 | 126\% | -3\% | -1\% | -27\% | 14\% |
| 38. (-3) | United States | San Francisco | 1.04 | 1.03 | 0.91 | 0.81 | 119\% | -11\% | -9\% | -22\% | 23\% |
| 39. (+2) | Mexico | Mexico City | 1.06 | 0.87 | 0.81 | 0.81 | 119\% | 0\% | 2\% | -24\% | 20\% |
| 40. (-1) | Canada | Toronto | 1.19 | 1.00 | 0.83 | 0.79 | 116\% | -5\% | -3\% | -34\% | 4\% |
| 41. $(-1)$ | Canada | Ottawa | 1.14 | 0.95 | 0.82 | 0.76 | 111\% | -8\% | -6\% | -33\% | 5\% |
| 42. (-) | United States | Chicago | 1.01 | 0.86 | 0.77 | 0.69 | 101\% | -10\% | -8\% | -32\% | 7\% |
| 43. (+3) | Russia | Moscow | 0.91 | 0.69 | 0.55 | 0.69 | 101\% | 25\% | 27\% | -25\% | 18\% |
| 44. (-1) | United States | New York City | 1.07 | 0.75 | 0.70 | 0.68 | 100\% | -2\% | 0\% | -36\% | 0\% |
| 45. (-) | United States | Boston | 0.96 | 0.82 | 0.60 | 0.60 | 87\% | 0\% | 2\% | -38\% | -2\% |
| 46. (-2) | Indonesia | J akarta | 0.79 | 0.63 | 0.64 | 0.59 | 86\% | -7\% | -5\% | -25\% | 17\% |
| 47. (-) | Malaysia | Kuala Lumpur | 0.64 | 0.59 | 0.52 | 0.47 | 68\% | -9\% | -8\% | -27\% | 14\% |

Source: www.expatistan.com

Figure 19: Taxi trip on a business day, basic tariff, 8 km . ( 5 miles)

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Switzerland | Zurich | 34.1 | 31.8 | 33.0 | 35.0 | 238\% | 6\% | 11\% | 3\% | 41\% |
| 02. (-) | J apan | Tokyo | 23.4 | 23.9 | 28.8 | 30.1 | 205\% | 5\% | 9\% | 29\% | 77\% |
| 03. (-) | Sweden | Stockholm | 30.8 | 23.8 | 28.8 | 27.7 | 188\% | -4\% | 0\% | -10\% | 24\% |
| 04. (-) | Denmark | Copenhagen | 31.9 | 27.6 | 26.9 | 26.6 | 180\% | -1\% | 3\% | -17\% | 14\% |
| 05. (-) | Netherlands | Amsterdam | 29.5 | 25.4 | 26.7 | 25.4 | 173\% | -5\% | -1\% | -14\% | 18\% |
| 06. (-) | Norway | Oslo | 34.9 | 26.7 | 26.1 | 23.9 | 162\% | -9\% | -5\% | -32\% | -6\% |
| 07. (-) | Finland | Helsinki | 28.9 | 24.4 | 24.3 | 23.4 | 159\% | -4\% | 0\% | -19\% | 11\% |
| 08. (+8) | New Zealand | Auckland | 21.8 | 19.6 | 18.2 | 23.1 | 157\% | 27\% | 32\% | 6\% | 45\% |
| 09. (-1) | Belgium | Brussels | 24.9 | 20.8 | 23.4 | 22.2 | 151\% | -5\% | -1\% | -11\% | 22\% |
| 10. (+2) | Germany | Berlin | 31.0 | 24.4 | 20.8 | 21.5 | 146\% | 4\% | 8\% | -31\% | -5\% |
| 11. (-2) | United States | Chicago | 17.8 | 21.6 | 22.2 | 20.4 | 139\% | -8\% | -4\% | 15\% | 58\% |
| 12. $(+1)$ | New Zealand | Wellington | 29.2 | 25.2 | 20.5 | 20.0 | 136\% | -3\% | 1\% | -32\% | -6\% |
| 13. $(-3)$ | United Kingdom | Edinburgh | 28.3 | 24.6 | 21.3 | 19.8 | 135\% | -7\% | -3\% | -30\% | -4\% |
| 14. (+5) | Australia | Sydney | 23.2 | 20.9 | 17.7 | 19.8 | 134\% | 12\% | 16\% | -15\% | 17\% |
| 15. (+6) | Ireland | Dublin | 20.9 | 15.9 | 17.5 | 19.8 | 134\% | 13\% | 18\% | -6\% | 30\% |
| 16. (-5) | United States | San Francisco | 21.2 | 26.6 | 21.1 | 18.7 | 127\% | -12\% | -8\% | -12\% | 21\% |
| 17. (-3) | Italy | Milan | 22.0 | 20.3 | 18.9 | 18.6 | 127\% | -2\% | 3\% | -15\% | 17\% |
| 18. $(+4)$ | Spain | Madrid | 19.6 | 14.9 | 16.8 | 18.1 | 123\% | 8\% | 12\% | -8\% | 27\% |
| 19. (-4) | Germany | Frankfurt | 24.7 | 19.8 | 18.4 | 17.6 | 119\% | -5\% | 0\% | -29\% | -2\% |
| 20. (+4) | United Kingdom | London | 31.6 | 22.1 | 15.3 | 17.2 | 117\% | 12\% | 17\% | -46\% | -25\% |
| 21. (-4) | Portugal | Lisbon | 11.3 | 13.6 | 17.9 | 16.9 | 115\% | -5\% | -1\% | 50\% | 106\% |
| 22. (-2) | Austria | Vienna | 25.8 | 16.7 | 17.6 | 16.3 | 111\% | -8\% | -4\% | -37\% | -13\% |
| 23. $(+6)$ | Canada | Toronto | 21.2 | 17.1 | 13.7 | 16.2 | 110\% | 18\% | 23\% | -23\% | 5\% |
| 24. (+1) | United States | Boston | 19.8 | 16.5 | 15.3 | 15.7 | 107\% | 3\% | 7\% | -21\% | 9\% |
| 25. (+2) | Australia | Melbourne | 17.9 | 16.8 | 14.3 | 15.2 | 103\% | 6\% | 11\% | -15\% | 17\% |
| 26. (+8) | South Africa | J ohannesburg | 10.3 | 11.3 | 9.2 | 14.8 | 100\% | 61\% | 68\% | 43\% | 97\% |
| 27. (-4) | United States | New York City | 20.3 | 18.0 | 15.4 | 14.7 | 100\% | -4\% | 0\% | -27\% | 0\% |
| 28. (-10) | France | Paris | 23.3 | 17.8 | 17.8 | 14.5 | 99\% | -18\% | -15\% | -38\% | -14\% |
| 29. (-3) | Canada | Ottawa | 13.5 | 15.5 | 14.4 | 13.3 | 90\% | -8\% | -4\% | -2\% | 35\% |
| 30. (-2) | Greece | Athens | 15.2 | 15.1 | 14.3 | 12.5 | 85\% | -13\% | -9\% | -18\% | 13\% |
| 31. (-1) | Brazil | Sao Paulo | 11.3 | 10.4 | 10.9 | 11.7 | 79\% | 7\% | 11\% | 3\% | 42\% |
| 32. $(-1)$ | Czech Republic | Prague | 12.3 | 11.3 | 10.7 | 11.4 | 77\% | 6\% | 10\% | -8\% | 27\% |
| 33. $(+3)$ | Hong Kong | Hong Kong | 9.4 | 12.6 | 8.6 | 10.5 | 71\% | 22\% | 27\% | 12\% | 54\% |
| 34. (+1) | Brazil | Rio de J aneiro | 10.9 | 10.2 | 9.0 | 9.5 | 65\% | 6\% | 11\% | -13\% | 20\% |
| 35. (-2) | Singapore | Singapore | 9.7 | 11.5 | 9.6 | 8.7 | 59\% | -10\% | -6\% | -11\% | 23\% |
| 36. (-4) | Turkey | Istanbul | 8.3 | 9.9 | 9.9 | 8.3 | 56\% | -17\% | -13\% | -1\% | 37\% |
| 37. (+1) | Poland | Warsaw | 9.4 | 6.8 | 6.9 | 7.1 | 48\% | 3\% | 7\% | -25\% | 4\% |
| 38. (-1) | South Africa | Cape Town | 8.4 | 8.5 | 7.4 | 7.0 | 48\% | -4\% | 0\% | -16\% | 16\% |
| 39. (-) | Russia | Moscow | 15.2 | 10.5 | 6.4 | 6.5 | 44\% | 2\% | 6\% | -58\% | -42\% |
| 40. (-) | China | Shanghai | 6.1 | 5.6 | 5.8 | 5.6 | 38\% | -4\% | 0\% | -9\% | 25\% |
| 41. $(+3)$ | Malaysia | Kuala Lumpur | 4.6 | 4.7 | 3.8 | 5.2 | 35\% | 36\% | 42\% | 14\% | 57\% |
| 42. (-) | Indonesia | J akarta | 3.9 | 4.2 | 4.4 | 3.6 | 24\% | -19\% | -16\% | -8\% | 27\% |
| 43. (-) | Mexico | Mexico City | 4.5 | 6.4 | 3.9 | 3.4 | 23\% | -14\% | -10\% | -25\% | 3\% |
| 44. (+2) | India | Mumbai | 2.7 | 2.8 | 2.8 | 3.3 | 22\% | 18\% | 23\% | 24\% | 70\% |
| 45. (-) | India | Bangalore | 3.8 | 3.2 | 3.2 | 2.6 | 18\% | -17\% | -14\% | -31\% | -5\% |
| 46. (-5) | Philippines | Manila | 3.5 | 9.0 | 4.8 | 2.6 | 18\% | -46\% | -43\% | -26\% | 1\% |
| 47. (-) | India | New Delhi | 3.1 | 2.9 | 2.6 | 2.5 | 17\% | 0\% | 4\% | -18\% | 13\% |

[^12]Figure 20: A Ticket to the M ovies

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Switzerland | Zurich | 20.7 | 19.8 | 19.8 | 18.0 | 115\% | -9\% | -10\% | -13\% | -26\% |
| 02. (+2) | J apan | Tokyo | 17.5 | 15.2 | 15.3 | 15.7 | 101\% | 3\% | 2\% | -10\% | -24\% |
| 03. (-) | United States | New York City | 13.2 | 14.2 | 15.4 | 15.6 | 100\% | 1\% | 0\% | 18\% | 0\% |
| 04. (+5) | Australia | Sydney | 17.3 | 14.0 | 14.2 | 15.1 | 97\% | 6\% | 5\% | -13\% | -26\% |
| 05. (-3) | United Kingdom | London | 18.6 | 17.7 | 16.6 | 14.9 | 96\% | -10\% | -11\% | -20\% | -32\% |
| 06. (+2) | Australia | Melbourne | 16.8 | 15.0 | 14.3 | 14.7 | 94\% | 3\% | 1\% | -12\% | -26\% |
| 07. (-) | Denmark | Copenhagen | 18.4 | 13.5 | 14.5 | 14.6 | 94\% | 1\% | 0\% | -21\% | -33\% |
| 08. $(-2)$ | Norway | Oslo | 18.4 | 14.4 | 15.1 | 14.6 | 94\% | -3\% | -4\% | -21\% | -33\% |
| 09. (+1) | Finland | Helsinki | 17.0 | 12.9 | 13.3 | 14.5 | 93\% | 9\% | 8\% | -15\% | -28\% |
| 10. (-5) | Sweden | Stockholm | 16.5 | 12.8 | 15.1 | 14.3 | 92\% | -6\% | -7\% | -13\% | -27\% |
| 11. (+1) | United States | San Francisco | 12.3 | 13.4 | 12.8 | 13.5 | 87\% | 5\% | 4\% | 10\% | -7\% |
| 12. $(+4)$ | United States | Chicago | 11.5 | 11.3 | 12.3 | 12.6 | 81\% | 3\% | 2\% | 10\% | -6\% |
| 13. (-2) | United Kingdom | Edinburgh | 15.4 | 13.4 | 12.9 | 12.6 | 81\% | -2\% | -3\% | -18\% | -31\% |
| 14. (+3) | Netherlands | Amsterdam | 14.2 | 11.2 | 12.1 | 12.5 | 80\% | 3\% | 2\% | -12\% | -25\% |
| 15. (+8) | Belgium | Brussels | 13.2 | 10.4 | 11.1 | 12.5 | 80\% | 13\% | 12\% | -5\% | -20\% |
| 16. (-3) | United States | Boston | 12.1 | 12.0 | 12.7 | 12.5 | 80\% | -2\% | -3\% | 3\% | -13\% |
| 17. (-2) | Hong Kong | Hong Kong | 10.5 | 10.5 | 12.3 | 11.7 | 75\% | -5\% | -6\% | 12\% | -5\% |
| 18. $(+3)$ | France | Paris | 13.9 | 10.8 | 11.6 | 11.7 | 75\% | 1\% | 0\% | -16\% | -28\% |
| 19. (-) | New Zealand | Auckland | 14.3 | 12.6 | 11.7 | 11.5 | 74\% | -2\% | -3\% | -20\% | -32\% |
| 20. (-) | Ireland | Dublin | 13.7 | 11.7 | 11.6 | 11.0 | 71\% | -5\% | -6\% | -20\% | -32\% |
| 21. (+4) | Austria | Vienna | 11.7 | 9.6 | 10.7 | 10.9 | 70\% | 2\% | 1\% | -7\% | -21\% |
| 22. (+4) | Germany | Berlin | 12.6 | 10.5 | 10.6 | 10.6 | 68\% | 0\% | -1\% | -16\% | -28\% |
| 23. (-9) | China | Shanghai | 13.9 | 13.3 | 12.4 | 10.6 | 68\% | -15\% | -16\% | -24\% | -35\% |
| 24. (-2) | Germany | Frankfurt | 14.1 | 10.2 | 11.5 | 10.4 | 67\% | -10\% | -11\% | -26\% | -38\% |
| 25. (-1) | Canada | Toronto | 12.1 | 11.4 | 10.8 | 10.2 | 65\% | -5\% | -7\% | -16\% | -29\% |
| 26. (+1) | Spain | Madrid | 11.8 | 9.5 | 10.1 | 9.9 | 64\% | -2\% | -3\% | -16\% | -29\% |
| 27. (+1) | Canada | Ottawa | 10.5 | 10.4 | 9.9 | 9.2 | 59\% | -7\% | -8\% | -12\% | -25\% |
| 28. (+1) | Italy | Milan | 11.3 | 9.0 | 9.4 | 9.2 | 59\% | -2\% | -3\% | -18\% | -31\% |
| 29. $(+4)$ | Brazil | Rio de J aneiro | 9.4 | 7.8 | 7.2 | 8.6 | 55\% | 20\% | 19\% | -8\% | -22\% |
| 30. (-) | Singapore | Singapore | 8.7 | 8.3 | 8.6 | 8.5 | 55\% | 0\% | -1\% | -1\% | -16\% |
| 31. (+3) | Brazil | Sao Paulo | 10.1 | 8.2 | 7.1 | 8.4 | 54\% | 20\% | 18\% | -16\% | -29\% |
| 32. (-14) | New Zealand | Wellington | 14.1 | 12.5 | 11.7 | 8.4 | 54\% | -28\% | -29\% | -40\% | -49\% |
| 33. (-2) | Greece | Athens | 10.2 | 8.2 | 8.4 | 8.3 | 53\% | -2\% | -3\% | -19\% | -31\% |
| 34. (+4) | Russia | Moscow | 9.5 | 7.5 | 6.1 | 7.2 | 46\% | 19\% | 18\% | -24\% | -35\% |
| 35. (-3) | Portugal | Lisbon | 8.3 | 7.3 | 7.2 | 7.0 | 45\% | -3\% | -4\% | -16\% | -28\% |
| 36. (-) | Czech Republic | Prague | 7.7 | 6.4 | 6.7 | 6.9 | 45\% | 3\% | 2\% | -10\% | -24\% |
| 37. (-2) | Poland | Warsaw | 8.0 | 6.8 | 6.9 | 6.7 | 43\% | -4\% | -5\% | -17\% | -29\% |
| 38. (+4) | South Africa | Cape Town | 4.5 | 4.4 | 4.2 | 5.4 | 35\% | 28\% | 27\% | 19\% | 1\% |
| 39. $(-2)$ | Turkey | Istanbul | 7.2 | 6.0 | 6.3 | 5.2 | 33\% | -18\% | -19\% | -28\% | -39\% |
| 40. (+1) | South Africa | J ohannesburg | 5.0 | 5.1 | 4.3 | 5.2 | 33\% | 19\% | 18\% | 3\% | -13\% |
| 41. $(-2)$ | Philippines | Manila | 4.7 | 5.2 | 4.9 | 5.1 | 33\% | 4\% | 3\% | 10\% | -7\% |
| 42. $(+4)$ | India | Bangalore | 4.1 | 4.0 | 4.1 | 5.1 | 33\% | 25\% | 23\% | 25\% | 6\% |
| 43. (-3) | India | New Delhi | 4.1 | 4.4 | 4.6 | 4.6 | 30\% | 1\% | 0\% | 15\% | -3\% |
| 44. (-) | India | Mumbai | 3.8 | 3.7 | 4.1 | 4.3 | 28\% | 5\% | 4\% | 15\% | -3\% |
| 45. (-2) | Mexico | Mexico City | 5.0 | 4.4 | 4.1 | 4.1 | 26\% | -1\% | -2\% | -18\% | -30\% |
| 46. (+1) | Indonesia | J akarta | 3.6 | 3.7 | 4.0 | 3.9 | 25\% | -2\% | -3\% | 7\% | -9\% |
| 47. (-2) | Malaysia | Kuala Lumpur | 3.8 | 4.1 | 4.1 | 3.3 | 21\% | -19\% | -20\% | -13\% | -26\% |

[^13]Figure 21: A M onth of Gym Membership in the Business District

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (+1) | J apan | Tokyo | 96.8 | 90.7 | 123.1 | 129.0 | 110\% | 5\% | -17\% | 33\% | 24\% |
| 02. (-1) | Switzerland | Zurich | 108.2 | 123.3 | 127.3 | 117.9 | 101\% | -7\% | -26\% | 9\% | 2\% |
| 03. (+4) | United States | New York City | 109.1 | 98.6 | 93.2 | 117.0 | 100\% | 26\% | 0\% | 7\% | 0\% |
| 04. (-) | Singapore | Singapore | 132.5 | 96.4 | 105.4 | 105.0 | 90\% | 0\% | -21\% | -21\% | -26\% |
| 05. (+8) | United States | Boston | 77.7 | 66.2 | 72.8 | 96.6 | 83\% | 33\% | 6\% | 24\% | 16\% |
| 06. (-1) | Hong Kong | Hong Kong | 103.3 | 72.6 | 100.2 | 95.7 | 82\% | -4\% | -24\% | -7\% | -14\% |
| 07. (+1) | United States | San Francisco | 81.6 | 61.7 | 92.8 | 91.2 | 78\% | -2\% | -22\% | 12\% | 4\% |
| 08. (-5) | Russia | Moscow | 137.8 | 113.1 | 108.0 | 84.8 | 72\% | -21\% | -37\% | -38\% | -43\% |
| 09. (+21) | China | Shanghai | 89.8 | 59.1 | 53.6 | 83.6 | 71\% | 56\% | 24\% | -7\% | -13\% |
| 10. (-4) | United Kingdom | London | 117.8 | 84.5 | 98.0 | 83.4 | 71\% | -15\% | -32\% | -29\% | -34\% |
| 11. (-2) | Italy | Milan | 95.7 | 90.2 | 84.3 | 79.7 | 68\% | -5\% | -25\% | -17\% | -22\% |
| 12. $(-2)$ | France | Paris | 98.8 | 88.1 | 83.7 | 77.4 | 66\% | -7\% | -26\% | -22\% | -27\% |
| 13. $(-1)$ | United States | Chicago | 64.0 | 84.2 | 78.4 | 72.6 | 62\% | -7\% | -26\% | 13\% | 6\% |
| 14. (-3) | Austria | Vienna | 110.1 | 81.1 | 81.9 | 69.2 | 59\% | -16\% | -33\% | -37\% | -41\% |
| 15. (-1) | Australia | Sydney | 74.9 | 57.1 | 66.6 | 68.2 | 58\% | 2\% | -19\% | -9\% | -15\% |
| 16. $(+4)$ | Mexico | Mexico City | 114.3 | 72.0 | 61.0 | 66.5 | 57\% | 9\% | -13\% | -42\% | -46\% |
| 17. (+2) | Norway | Oslo | 81.0 | 61.1 | 61.6 | 64.2 | 55\% | 4\% | -17\% | -21\% | -26\% |
| 18. (-3) | Finland | Helsinki | 98.2 | 68.9 | 64.6 | 63.6 | 54\% | -2\% | -22\% | -35\% | -40\% |
| 19. (+9) | Brazil | Sao Paulo | 114.9 | 78.9 | 55.4 | 62.8 | 54\% | 13\% | -10\% | -45\% | -49\% |
| 20. (+2) | Sweden | Stockholm | 75.4 | 51.4 | 60.6 | 61.2 | 52\% | 1\% | -20\% | -19\% | -24\% |
| 21. (+8) | Portugal | Lisbon | 76.5 | 56.1 | 54.5 | 57.4 | 49\% | 5\% | -16\% | -25\% | -30\% |
| 22. (-6) | Belgium | Brussels | 98.0 | 59.4 | 63.8 | 56.6 | 48\% | -11\% | -29\% | -42\% | -46\% |
| 23. (+1) | Ireland | Dublin | 68.4 | 69.9 | 58.0 | 56.5 | 48\% | -3\% | -22\% | -17\% | -23\% |
| 24. $(+2)$ | Australia | Melbourne | 68.6 | 55.1 | 56.6 | 55.2 | 47\% | -3\% | -22\% | -20\% | -25\% |
| 25. (-8) | Turkey | Istanbul | 83.8 | 69.0 | 63.3 | 53.0 | 45\% | -16\% | -33\% | -37\% | -41\% |
| 26. (-5) | Spain | Madrid | 78.5 | 65.0 | 61.0 | 51.9 | 44\% | -15\% | -32\% | -34\% | -38\% |
| 27. (+4) | New Zealand | Auckland | 72.4 | 64.0 | 52.0 | 51.7 | 44\% | -1\% | -21\% | -29\% | -33\% |
| 28. (-3) | Canada | Toronto | 64.3 | 50.3 | 57.5 | 49.2 | 42\% | -14\% | -32\% | -23\% | -29\% |
| 29. (+7) | Brazil | Rio de J aneiro | 71.6 | 55.1 | 45.8 | 48.9 | 42\% | 7\% | -15\% | -32\% | -36\% |
| 30. (-3) | Germany | Berlin | 62.8 | 36.8 | 56.1 | 48.9 | 42\% | -13\% | -31\% | -22\% | -27\% |
| 31. $(+16)$ | India | Bangalore | 33.9 | 34.7 | 23.4 | 48.2 | 41\% | 106\% | 64\% | 42\% | 33\% |
| 32. (-14) | Philippines | Manila | 59.1 | 67.0 | 62.5 | 47.6 | 41\% | -24\% | -39\% | -20\% | -25\% |
| 33. (-10) | New Zealand | Wellington | 101.9 | 71.8 | 59.1 | 45.5 | 39\% | -23\% | -39\% | -55\% | -58\% |
| 34. (+3) | India | Mumbai | 39.6 | 53.0 | 45.0 | 45.1 | 39\% | 0\% | -20\% | 14\% | 6\% |
| 35. (-2) | Germany | Frankfurt | 68.6 | 50.7 | 49.9 | 44.5 | 38\% | -11\% | -29\% | -35\% | -39\% |
| 36. (-4) | Netherlands | Amsterdam | 58.1 | 43.5 | 51.8 | 43.4 | 37\% | -16\% | -33\% | -25\% | -30\% |
| 37. (+3) | Indonesia | J akarta | 45.2 | 39.8 | 41.8 | 43.1 | 37\% | 3\% | -18\% | -5\% | -11\% |
| 38. (-3) | United Kingdom | Edinburgh | 73.5 | 49.4 | 47.8 | 42.4 | 36\% | -11\% | -29\% | -42\% | -46\% |
| 39. (-) | Canada | Ottawa | 49.2 | 52.2 | 43.1 | 42.0 | 36\% | -2\% | -22\% | -15\% | -20\% |
| 40. (+4) | Denmark | Copenhagen | 64.5 | 32.4 | 38.6 | 41.3 | 35\% | 7\% | -15\% | -36\% | -40\% |
| 41. (+2) | Czech Republic | Prague | 52.1 | 41.3 | 40.2 | 40.2 | 34\% | 0\% | -20\% | -23\% | -28\% |
| 42. (-4) | Greece | Athens | 62.8 | 60.9 | 43.6 | 39.1 | 33\% | -10\% | -29\% | -38\% | -42\% |
| 43. (-9) | Malaysia | Kuala Lumpur | 55.7 | 49.3 | 48.4 | 39.0 | 33\% | -19\% | -36\% | -30\% | -35\% |
| 44. (-2) | Poland | Warsaw | 72.0 | 50.6 | 40.7 | 38.3 | 33\% | -6\% | -25\% | -47\% | -50\% |
| 45. (-4) | India | New Delhi | 34.5 | 40.4 | 41.6 | 37.2 | 32\% | -11\% | -29\% | 8\% | 0\% |
| 46. (-) | South Africa | Cape Town | 40.4 | 38.7 | 36.8 | 36.9 | 32\% | 0\% | -20\% | -9\% | -15\% |
| 47. (-2) | South Africa | J ohannesburg | 42.4 | 35.3 | 37.2 | 33.6 | 29\% | -10\% | -28\% | -21\% | -26\% |

[^14]Figure 22: Men's standard haircut in the Expat Area of the City

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To <br> NY | 3-yr Cum. <br> Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Switzerland | Zurich | 62.1 | 50.1 | 57.4 | 62.0 | 249\% | 8\% | 5\% | 0\% | 32\% |
| 02. (-) | Norway | Oslo | 81.8 | 57.3 | 55.0 | 48.1 | 193\% | -13\% | -15\% | -41\% | -22\% |
| 03. (+1) | Denmark | Copenhagen | 46.9 | 32.2 | 42.7 | 45.1 | 181\% | 6\% | 3\% | -4\% | 27\% |
| 04. (+2) | J apan | Tokyo | 39.5 | 32.1 | 32.9 | 35.2 | 141\% | 7\% | 5\% | -11\% | 18\% |
| 05. (-2) | Sweden | Stockholm | 47.8 | 42.2 | 44.1 | 34.4 | 138\% | -22\% | -24\% | -28\% | -5\% |
| 06. (-1) | Netherlands | Amsterdam | 43.7 | 33.3 | 34.3 | 31.4 | 126\% | -8\% | -10\% | -28\% | -5\% |
| 07. (+2) | United States | San Francisco | 28.2 | 29.4 | 25.9 | 30.4 | 122\% | 17\% | 14\% | 8\% | 42\% |
| 08. (+2) | France | Paris | 31.8 | 22.8 | 25.8 | 28.0 | 112\% | 8\% | 6\% | -12\% | 16\% |
| 09. (-2) | Finland | Helsinki | 38.7 | 30.7 | 26.9 | 27.7 | 111\% | 3\% | 1\% | -28\% | -5\% |
| 10. $(+13)$ | United States | Boston | 20.3 | 19.0 | 20.4 | 26.1 | 105\% | 28\% | 25\% | 29\% | 70\% |
| 11. (-) | Belgium | Brussels | 30.6 | 22.3 | 25.2 | 25.8 | 104\% | 2\% | 0\% | -16\% | 11\% |
| 12. $(+2)$ | United States | New York City | 33.0 | 19.8 | 24.4 | 24.9 | 100\% | 2\% | 0\% | -24\% | 0\% |
| 13. $(+2)$ | New Zealand | Wellington | 27.2 | 25.8 | 24.2 | 24.2 | 97\% | 0\% | -3\% | -11\% | 17\% |
| 14. $(-2)$ | United Kingdom | London | 26.7 | 21.2 | 24.8 | 24.1 | 97\% | -3\% | -5\% | -9\% | 20\% |
| 15. (-7) | Hong Kong | Hong Kong | 35.4 | 24.3 | 26.9 | 22.7 | 91\% | -15\% | -17\% | -36\% | -15\% |
| 16. $(+4)$ | Germany | Frankfurt | 24.7 | 20.5 | 21.1 | 22.3 | 90\% | 6\% | 3\% | -10\% | 19\% |
| 17. (-1) | Austria | Vienna | 34.8 | 24.8 | 23.9 | 20.7 | 83\% | -13\% | -15\% | -41\% | -21\% |
| 18. (-1) | United States | Chicago | 19.6 | 23.7 | 23.0 | 20.6 | 83\% | -10\% | -12\% | 6\% | 39\% |
| 19. $(+5)$ | Germany | Berlin | 19.7 | 17.8 | 19.2 | 20.5 | 82\% | 7\% | 5\% | 5\% | 38\% |
| 20. $(+10)$ | Russia | Moscow | 19.2 | 15.7 | 15.8 | 20.3 | 81\% | 28\% | 25\% | 6\% | 40\% |
| 21. (-3) | Italy | Milan | 24.5 | 21.1 | 22.2 | 20.2 | 81\% | -9\% | -11\% | -18\% | 9\% |
| 22. (-9) | Australia | Melbourne | 28.7 | 24.4 | 24.6 | 20.1 | 80\% | -18\% | -20\% | -30\% | -8\% |
| 23. (-4) | Singapore | Singapore | 20.6 | 23.1 | 21.9 | 18.4 | 74\% | -16\% | -18\% | -11\% | 18\% |
| 24. (+1) | Australia | Sydney | 26.4 | 20.5 | 19.0 | 18.3 | 73\% | -4\% | -6\% | -31\% | -9\% |
| 25. (+1) | United Kingdom | Edinburgh | 18.9 | 15.6 | 18.7 | 18.1 | 73\% | -3\% | -5\% | -4\% | 27\% |
| 26. (-4) | Canada | Toronto | 20.8 | 17.1 | 20.6 | 18.0 | 72\% | -12\% | -14\% | -13\% | 15\% |
| 27. (+1) | New Zealand | Auckland | 21.6 | 18.2 | 16.9 | 17.1 | 69\% | 2\% | -1\% | -21\% | 5\% |
| 28. $(-1)$ | Canada | Ottawa | 15.9 | 17.8 | 17.5 | 16.7 | 67\% | -5\% | -7\% | 5\% | 39\% |
| 29. (-) | Ireland | Dublin | 17.2 | 15.1 | 16.7 | 16.4 | 66\% | -2\% | -4\% | -5\% | 26\% |
| 30. (+2) | Czech Republic | Prague | 14.3 | 10.6 | 14.0 | 13.7 | 55\% | -2\% | -4\% | -4\% | 26\% |
| 31. (+2) | Greece | Athens | 17.1 | 12.8 | 13.1 | 13.6 | 55\% | 5\% | 2\% | -20\% | 5\% |
| 32. (+6) | Brazil | Sao Paulo | 16.1 | 16.5 | 11.1 | 12.9 | 52\% | 16\% | 13\% | -20\% | 6\% |
| 33. $(-2)$ | Spain | Madrid | 18.4 | 12.6 | 14.2 | 12.6 | 51\% | -11\% | -13\% | -31\% | -9\% |
| 34. (+1) | Brazil | Rio de J aneiro | 11.3 | 10.2 | 11.8 | 12.3 | 49\% | 4\% | 1\% | 8\% | 43\% |
| 35. (-14) | China | Shanghai | 16.0 | 24.0 | 20.8 | 12.2 | 49\% | -41\% | -43\% | -24\% | 1\% |
| 36. (-2) | Portugal | Lisbon | 16.5 | 13.8 | 12.5 | 11.4 | 46\% | -8\% | -10\% | -31\% | -9\% |
| 37. (+4) | South Africa | J ohannesburg | 15.2 | 9.0 | 9.1 | 10.5 | 42\% | 16\% | 13\% | -30\% | -8\% |
| 38. $(-1)$ | South Africa | Cape Town | 10.3 | 11.1 | 11.2 | 10.0 | 40\% | -11\% | -13\% | -3\% | 28\% |
| 39. (-3) | Poland | Warsaw | 15.0 | 11.2 | 11.2 | 9.7 | 39\% | -13\% | -15\% | -35\% | -14\% |
| 40. (-1) | Mexico | Mexico City | 12.9 | 8.1 | 9.3 | 8.9 | 36\% | -4\% | -6\% | -31\% | -9\% |
| 41. (-1) | Turkey | Istanbul | 12.1 | 10.0 | 9.2 | 8.7 | 35\% | -5\% | -8\% | -28\% | -5\% |
| 42. (-) | Malaysia | Kuala Lumpur | 10.4 | 11.3 | 9.0 | 8.3 | 33\% | -8\% | -10\% | -20\% | 5\% |
| 43. (-) | Indonesia | J akarta | 7.4 | 6.2 | 8.9 | 7.1 | 29\% | -20\% | -22\% | -4\% | 27\% |
| 44. (-) | Philippines | Manila | 6.3 | 5.7 | 5.4 | 6.2 | 25\% | 14\% | 11\% | -2\% | 29\% |
| 45. (+2) | India | Bangalore | 5.3 | 3.7 | 2.7 | 4.5 | 18\% | 68\% | 64\% | -15\% | 13\% |
| 46. (-1) | India | Mumbai | 3.7 | 3.6 | 4.3 | 4.5 | 18\% | 3\% | 1\% | 20\% | 59\% |
| 47. (-1) | India | New Delhi | 4.3 | 2.3 | 3.5 | 3.1 | 13\% | -10\% | -12\% | -27\% | -4\% |

[^15]Figure 23: One Pack of Marlboro Cigarettes

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY <br> Change <br> (\%) | YoY <br> Change <br> (\%) Rel. To NY | $3-y r$ Cum. <br> Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Australia | Melbourne | 17.4 | 18.4 | 18.3 | 20.7 | 158\% | 13\% | 18\% | 19\% | 11\% |
| 02. (-) | Australia | Sydney | 17.2 | 17.5 | 18.0 | 19.2 | 147\% | 7\% | 12\% | 12\% | 4\% |
| 03. (-) | New Zealand | Auckland | 14.8 | 15.6 | 15.6 | 16.3 | 125\% | 5\% | 9\% | 10\% | 2\% |
| 04. (-) | New Zealand | Wellington | 14.7 | 15.6 | 14.9 | 15.7 | 120\% | 6\% | 10\% | 7\% | 0\% |
| 05. (+1) | United States | New York City | 12.1 | 13.4 | 13.6 | 13.1 | 100\% | -4\% | 0\% | 8\% | 0\% |
| 06. (-1) | Norway | Oslo | 17.5 | 12.7 | 13.8 | 12.7 | 97\% | -8\% | -4\% | -27\% | -32\% |
| 07. (+3) | Ireland | Dublin | 13.2 | 11.0 | 11.6 | 11.9 | 91\% | 3\% | 7\% | -10\% | -17\% |
| 08. (-1) | United Kingdom | London | 13.8 | 13.2 | 13.3 | 11.8 | 90\% | -11\% | -8\% | -15\% | -21\% |
| 09. (-) | United States | Chicago | 11.1 | 11.2 | 12.3 | 11.2 | 86\% | -9\% | -5\% | 1\% | -6\% |
| 10. (-2) | United Kingdom | Edinburgh | 13.7 | 12.4 | 13.0 | 11.2 | 86\% | -14\% | -10\% | -18\% | -24\% |
| 11. (-) | United States | Boston | 9.5 | 10.0 | 10.2 | 10.6 | 81\% | 4\% | 8\% | 11\% | 3\% |
| 12. $(+1)$ | Singapore | Singapore | 9.6 | 9.6 | 9.5 | 9.6 | 74\% | 1\% | 6\% | 0\% | -7\% |
| 13. $(-1)$ | Canada | Toronto | 8.9 | 9.2 | 9.5 | 8.8 | 67\% | -8\% | -4\% | -2\% | -9\% |
| 14. (-) | Canada | Ottawa | 9.2 | 8.9 | 9.0 | 8.4 | 64\% | -7\% | -3\% | -9\% | -15\% |
| 15. (-) | Switzerland | Zurich | 8.7 | 8.6 | 8.6 | 8.2 | 63\% | -5\% | -1\% | -6\% | -12\% |
| 16. (-) | France | Paris | 9.6 | 7.6 | 8.0 | 7.7 | 59\% | -4\% | 1\% | -20\% | -26\% |
| 17. (-) | Hong Kong | Hong Kong | 7.0 | 7.2 | 7.7 | 7.6 | 58\% | -2\% | 2\% | 9\% | 1\% |
| 18. (+1) | United States | San Francisco | 6.7 | 7.2 | 7.2 | 7.3 | 56\% | 1\% | 6\% | 9\% | 1\% |
| 19. $(+1)$ | Netherlands | Amsterdam | 8.2 | 6.6 | 6.9 | 7.1 | 54\% | 2\% | 7\% | -13\% | -19\% |
| 20. (-2) | Sweden | Stockholm | 8.6 | 6.8 | 7.3 | 6.8 | 52\% | -7\% | -3\% | -21\% | -27\% |
| 21. (+1) | Germany | Berlin | 7.0 | 5.8 | 6.6 | 6.7 | 51\% | 2\% | 6\% | -4\% | -11\% |
| 22. (+2) | Finland | Helsinki | 7.6 | 6.2 | 6.6 | 6.7 | 51\% | 2\% | 7\% | -12\% | -18\% |
| 23. (-) | Germany | Frankfurt | 7.1 | 5.7 | 6.6 | 6.6 | 50\% | 0\% | 4\% | -7\% | -13\% |
| 24. (+1) | Belgium | Brussels | 7.3 | 6.1 | 6.4 | 6.6 | 50\% | 2\% | 6\% | -10\% | -17\% |
| 25. (-4) | Denmark | Copenhagen | 8.0 | 6.2 | 6.7 | 6.2 | 47\% | -7\% | -3\% | -23\% | -28\% |
| 26. (-) | Italy | Milan | 6.9 | 5.6 | 5.9 | 5.7 | 44\% | -3\% | 1\% | -17\% | -23\% |
| 27. (+1) | Austria | Vienna | 6.8 | 5.4 | 5.6 | 5.6 | 43\% | 0\% | 5\% | -18\% | -24\% |
| 28. (-1) | Spain | Madrid | 6.6 | 5.4 | 5.6 | 5.3 | 41\% | -6\% | -2\% | -19\% | -25\% |
| 29. (-) | Portugal | Lisbon | 6.1 | 4.9 | 5.3 | 5.2 | 40\% | -1\% | 4\% | -13\% | -19\% |
| 30. (-) | Greece | Athens | 5.4 | 4.2 | 4.5 | 4.4 | 34\% | -1\% | 3\% | -18\% | -24\% |
| 31. (+5) | India | New Delhi | 2.5 | 3.2 | 3.2 | 4.2 | 32\% | 29\% | 35\% | 68\% | 56\% |
| 32. (-1) | J apan | Tokyo | 4.4 | 3.8 | 4.0 | 4.1 | 31\% | 2\% | 6\% | -7\% | -13\% |
| 33. (+1) | Czech Republic | Prague | 4.3 | 3.5 | 3.8 | 4.0 | 31\% | 4\% | 9\% | -8\% | -15\% |
| 34. (-1) | Poland | Warsaw | 4.4 | 3.7 | 3.8 | 3.9 | 30\% | 2\% | 7\% | -9\% | -16\% |
| 35. (-3) | Malaysia | Kuala Lumpur | 3.7 | 3.5 | 3.9 | 3.9 | 30\% | -1\% | 3\% | 5\% | -2\% |
| 36. (+6) | India | Bangalore | 2.4 | 3.2 | 2.3 | 3.8 | 29\% | 64\% | 72\% | 62\% | 50\% |
| 37. (-2) | Turkey | Istanbul | 4.3 | 3.6 | 3.6 | 3.4 | 26\% | -7\% | -3\% | -22\% | -28\% |
| 38. (-1) | India | Mumbai | 3.0 | 2.7 | 3.2 | 3.3 | 26\% | 4\% | 8\% | 12\% | 4\% |
| 39. (-1) | China | Shanghai | 2.7 | 2.6 | 3.1 | 3.1 | 24\% | 0\% | 5\% | 17\% | 9\% |
| 40. (+1) | South Africa | Cape Town | 3.2 | 2.9 | 2.4 | 3.0 | 23\% | 22\% | 28\% | -6\% | -13\% |
| 41. (-1) | South Africa | J ohannesburg | 3.4 | 2.8 | 2.6 | 2.9 | 22\% | 10\% | 14\% | -16\% | -22\% |
| 42. (-3) | Mexico | Mexico City | 3.3 | 3.0 | 2.8 | 2.8 | 22\% | -1\% | 3\% | -15\% | -21\% |
| 43. (+1) | Brazil | Sao Paulo | 3.0 | 2.3 | 2.1 | 2.7 | 21\% | 32\% | 38\% | -8\% | -15\% |
| 44. (-1) | Brazil | Rio de J aneiro | 2.6 | 2.4 | 2.3 | 2.6 | 20\% | 14\% | 19\% | 2\% | -5\% |
| 45. (-) | Russia | Moscow | 1.8 | 1.5 | 1.5 | 2.0 | 16\% | 36\% | 42\% | 11\% | 3\% |
| 46. (-) | Indonesia | J akarta | 1.6 | 1.3 | 1.5 | 1.6 | 12\% | 6\% | 11\% | -2\% | -9\% |
| 47. (-) | Philippines | Manila | 1.4 | 1.4 | 1.4 | 1.5 | 11\% | 3\% | 7\% | 3\% | -4\% |

[^16]Figure 24: Basic Dinner at a Neighborhood Pub for two

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (-) | Switzerland | Zurich | 78.6 | 74.7 | 86.8 | 73.7 | 132\% | -15\% | -19\% | -6\% | -18\% |
| 02. ( +2 ) | Norway | Oslo | 90.5 | 67.0 | 61.8 | 63.0 | 112\% | 2\% | -3\% | -30\% | -39\% |
| 03. (-) | J apan | Tokyo | 37.6 | 44.8 | 65.8 | 60.7 | 108\% | -8\% | -12\% | 62\% | 42\% |
| 04. (+2) | United States | New York City | 49.2 | 49.4 | 53.2 | 56.0 | 100\% | 5\% | 0\% | 14\% | 0\% |
| 05. (-3) | Denmark | Copenhagen | 64.2 | 47.7 | 71.2 | 55.7 | 99\% | -22\% | -26\% | -13\% | -24\% |
| 06. (+2) | United States | San Francisco | 47.8 | 48.2 | 50.9 | 50.3 | 90\% | -1\% | -6\% | 5\% | -8\% |
| 07. (+3) | United States | Boston | 44.7 | 43.9 | 48.7 | 49.7 | 89\% | 2\% | -3\% | 11\% | -2\% |
| 08. (-1) | Belgium | Brussels | 53.6 | 49.5 | 51.0 | 49.2 | 88\% | -4\% | -8\% | -8\% | -19\% |
| 09. (+8) | Hong Kong | Hong Kong | 37.1 | 45.1 | 43.2 | 49.0 | 87\% | 13\% | 8\% | 32\% | 16\% |
| 10. (+2) | France | Paris | 52.8 | 42.6 | 48.2 | 48.6 | 87\% | 1\% | -4\% | -8\% | -19\% |
| 11. (+2) | United Kingdom | London | 50.5 | 45.9 | 48.2 | 48.5 | 87\% | 1\% | -4\% | -4\% | -16\% |
| 12. (-7) | Sweden | Stockholm | 59.9 | 37.5 | 59.6 | 46.5 | 83\% | -22\% | -26\% | -22\% | -32\% |
| 13. $(-2)$ | Netherlands | Amsterdam | 55.4 | 43.0 | 48.5 | 46.4 | 83\% | -4\% | -9\% | -16\% | -26\% |
| 14. (+2) | Ireland | Dublin | 44.2 | 41.5 | 43.6 | 46.0 | 82\% | 6\% | 0\% | 4\% | -8\% |
| 15. (-1) | United States | Chicago | 40.0 | 43.6 | 44.5 | 43.9 | 78\% | -1\% | -6\% | 10\% | -4\% |
| 16. $(+3)$ | Canada | Toronto | 45.4 | 39.3 | 42.4 | 40.9 | 73\% | -3\% | -8\% | -10\% | -21\% |
| 17. (-2) | Finland | Helsinki | 50.3 | 36.4 | 44.1 | 40.7 | 73\% | -8\% | -12\% | -19\% | -29\% |
| 18. (-) | Singapore | Singapore | 43.4 | 43.2 | 43.2 | 40.2 | 72\% | -7\% | -12\% | -8\% | -19\% |
| 19. (+2) | Australia | Melbourne | 44.2 | 37.0 | 40.4 | 38.7 | 69\% | -4\% | -9\% | -12\% | -23\% |
| 20. (-11) | Italy | Milan | 47.9 | 42.8 | 50.1 | 38.6 | 69\% | -23\% | -27\% | -19\% | -29\% |
| 21. ( +6 ) | Australia | Sydney | 42.7 | 35.6 | 35.7 | 38.3 | 68\% | 7\% | 2\% | -10\% | -21\% |
| 22. $(+10)$ | Russia | Moscow | 52.1 | 35.7 | 30.5 | 38.0 | 68\% | 25\% | 19\% | -27\% | -36\% |
| 23. $(-3)$ | United Kingdom | Edinburgh | 38.4 | 36.2 | 40.6 | 36.6 | 65\% | -10\% | -14\% | -5\% | -16\% |
| 24. (+1) | New Zealand | Auckland | 41.7 | 38.6 | 37.0 | 36.6 | 65\% | -1\% | -6\% | -12\% | -23\% |
| 25. (-2) | China | Shanghai | 40.4 | 37.9 | 38.6 | 36.3 | 65\% | -6\% | -11\% | -10\% | -21\% |
| 26. (+8) | Brazil | Sao Paulo | 40.9 | 33.7 | 29.6 | 35.8 | 64\% | 21\% | 15\% | -13\% | -23\% |
| 27. (-3) | Canada | Ottawa | 34.7 | 39.5 | 37.8 | 35.5 | 63\% | -6\% | -11\% | 3\% | -10\% |
| 28. (+5) | Brazil | Rio de J aneiro | 35.0 | 35.4 | 29.8 | 35.5 | 63\% | 19\% | 13\% | 1\% | -11\% |
| 29. (-7) | New Zealand | Wellington | 40.5 | 38.3 | 38.9 | 35.0 | 63\% | -10\% | -14\% | -14\% | -24\% |
| 30. (-4) | Austria | Vienna | 39.3 | 35.8 | 36.9 | 34.7 | 62\% | -6\% | -11\% | -12\% | -22\% |
| 31. (-1) | Germany | Frankfurt | 52.4 | 34.9 | 33.3 | 34.0 | 61\% | 2\% | -3\% | -35\% | -43\% |
| 32. $(-4)$ | Spain | Madrid | 42.4 | 39.4 | 35.5 | 31.5 | 56\% | -11\% | -16\% | -26\% | -35\% |
| 33. (-4) | Greece | Athens | 38.8 | 27.9 | 34.8 | 30.5 | 54\% | -12\% | -17\% | -21\% | -31\% |
| 34. (+1) | Germany | Berlin | 36.4 | 32.8 | 28.4 | 28.2 | 50\% | -1\% | -6\% | -23\% | -32\% |
| 35. (+3) | Mexico | Mexico City | 25.8 | 23.4 | 24.4 | 28.1 | 50\% | 15\% | 10\% | 9\% | -4\% |
| 36. (+5) | India | Mumbai | 19.0 | 14.9 | 21.4 | 25.5 | 45\% | 19\% | 13\% | 34\% | 18\% |
| 37. (-6) | Portugal | Lisbon | 39.5 | 26.8 | 30.6 | 25.3 | 45\% | -17\% | -21\% | -36\% | -44\% |
| 38. (+2) | India | Bangalore | 18.7 | 19.0 | 21.4 | 22.1 | 40\% | 3\% | -2\% | 19\% | 4\% |
| 39. $(+5)$ | South Africa | Cape Town | 17.8 | 23.5 | 19.7 | 22.1 | 39\% | 12\% | 6\% | 24\% | 9\% |
| 40. (-4) | Turkey | Istanbul | 26.5 | 20.9 | 27.1 | 21.8 | 39\% | -20\% | -24\% | -18\% | -28\% |
| 41. (+2) | South Africa | J ohannesburg | 21.9 | 23.9 | 20.1 | 20.5 | 37\% | 2\% | -3\% | -7\% | -18\% |
| 42. (-5) | India | New Delhi | 21.0 | 25.8 | 25.4 | 19.8 | 35\% | -22\% | -26\% | -6\% | -17\% |
| 43. $(+3)$ | Poland | Warsaw | 22.5 | 17.8 | 18.7 | 19.1 | 34\% | 2\% | -3\% | -15\% | -25\% |
| 44. (+3) | Czech Republic | Prague | 20.3 | 17.0 | 16.1 | 18.6 | 33\% | 16\% | 10\% | -8\% | -19\% |
| 45. (-) | Malaysia | Kuala Lumpur | 27.2 | 21.9 | 19.5 | 17.9 | 32\% | -8\% | -13\% | -34\% | -42\% |
| 46. (-7) | Philippines | Manila | 23.2 | 25.9 | 21.5 | 17.8 | 32\% | -17\% | -21\% | -23\% | -32\% |
| 47. (-5) | Indonesia | J akarta | 24.6 | 26.6 | 20.8 | 17.4 | 31\% | -16\% | -20\% | -29\% | -38\% |

[^17]Figure 25: Full course dinner for two at an Italian Restaurant

|  | Country | City | 2014 | 2015 | 2016 | 2017 | Relative to NY | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To NY | 3-yr Cum. Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (+5) | Norway | Oslo | 186.4 | 121.2 | 115.1 | 129.6 | 112\% | 13\% | 22\% | -30\% | -31\% |
| 02. (+3) | Hong Kong | Hong Kong | 149.6 | 86.0 | 121.9 | 124.9 | 108\% | 2\% | 11\% | -17\% | -18\% |
| 03. (-2) | Denmark | Copenhagen | 135.8 | 99.1 | 138.5 | 120.3 | 104\% | -13\% | -6\% | -11\% | -12\% |
| 04. (-) | United States | New York City | 114.0 | 108.8 | 125.0 | 115.4 | 100\% | -8\% | 0\% | 1\% | 0\% |
| 05. (-3) | Switzerland | Zurich | 151.4 | 116.4 | 136.6 | 109.9 | 95\% | -20\% | -13\% | -27\% | -28\% |
| 06. (+7) | United States | San Francisco | 105.2 | 116.9 | 98.2 | 98.2 | 85\% | 0\% | 8\% | -7\% | -8\% |
| 07. (+1) | Sweden | Stockholm | 138.2 | 96.8 | 106.3 | 94.8 | 82\% | -11\% | -3\% | -31\% | -32\% |
| 08. (+1) | Singapore | Singapore | 132.4 | 113.7 | 106.1 | 94.7 | 82\% | -11\% | -3\% | -28\% | -29\% |
| 09. (+3) | Finland | Helsinki | 143.7 | 82.4 | 101.2 | 94.6 | 82\% | -6\% | 1\% | -34\% | -35\% |
| 10. (-3) | United States | Boston | 92.7 | 67.0 | 107.9 | 89.9 | 78\% | -17\% | -10\% | -3\% | -4\% |
| 11. (-8) | J apan | Tokyo | 67.0 | 59.2 | 130.0 | 86.2 | 75\% | -34\% | -28\% | 29\% | 27\% |
| 12. $(+11)$ | Australia | Sydney | 106.4 | 85.8 | 80.7 | 84.7 | 73\% | 5\% | 14\% | -20\% | -21\% |
| 13. (+16) | Russia | Moscow | 104.3 | 75.0 | 70.9 | 84.6 | 73\% | 19\% | 29\% | -19\% | -20\% |
| 14. (+5) | Netherlands | Amsterdam | 89.3 | 69.1 | 83.9 | 84.1 | 73\% | 0\% | 9\% | -6\% | -7\% |
| 15. (-1) | New Zealand | Wellington | 85.9 | 79.4 | 93.8 | 84.0 | 73\% | -10\% | -3\% | -2\% | -3\% |
| 16. (-6) | United Kingdom | London | 106.9 | 85.3 | 104.5 | 83.4 | 72\% | -20\% | -14\% | -22\% | -23\% |
| 17. $(+5)$ | Belgium | Brussels | 91.6 | 72.9 | 81.6 | 80.5 | 70\% | -1\% | 7\% | -12\% | -13\% |
| 18. $(-2)$ | Canada | Toronto | 103.6 | 81.7 | 87.1 | 80.2 | 70\% | -8\% | 0\% | -23\% | -23\% |
| 19. (-2) | Ireland | Dublin | 94.5 | 80.1 | 85.3 | 78.6 | 68\% | -8\% | 0\% | -17\% | -18\% |
| 20. (-) | Italy | Milan | 104.0 | 83.0 | 83.8 | 75.9 | 66\% | -9\% | -2\% | -27\% | -28\% |
| 21. (-10) | United States | Chicago | 88.9 | 106.0 | 101.9 | 75.4 | 65\% | -26\% | -20\% | -15\% | -16\% |
| 22. (-7) | China | Shanghai | 97.5 | 65.2 | 90.5 | 74.9 | 65\% | -17\% | -10\% | -23\% | -24\% |
| 23. (-2) | France | Paris | 86.2 | 66.5 | 82.1 | 72.3 | 63\% | -12\% | -4\% | -16\% | -17\% |
| 24. (-) | Australia | Melbourne | 98.5 | 85.3 | 79.8 | 72.2 | 63\% | -10\% | -2\% | -27\% | -28\% |
| 25. (+3) | Canada | Ottawa | 62.2 | 65.9 | 73.1 | 70.9 | 61\% | -3\% | 5\% | 14\% | 13\% |
| 26. (-8) | New Zealand | Auckland | 101.2 | 84.3 | 84.0 | 69.7 | 60\% | -17\% | -10\% | -31\% | -32\% |
| 27. (-2) | Germany | Frankfurt | 80.3 | 55.7 | 79.7 | 67.8 | 59\% | -15\% | -8\% | -16\% | -17\% |
| 28. $(+6)$ | Brazil | Rio de J aneiro | 91.9 | 71.7 | 63.5 | 66.0 | 57\% | 4\% | 13\% | -28\% | -29\% |
| 29. (+4) | Brazil | Sao Paulo | 80.8 | 67.6 | 63.8 | 63.4 | 55\% | -1\% | 8\% | -21\% | -22\% |
| 30. (-) | United Kingdom | Edinburgh | 86.5 | 70.3 | 67.7 | 61.6 | 53\% | -9\% | -1\% | -29\% | -30\% |
| 31. (-5) | Turkey | Istanbul | 79.3 | 61.9 | 75.9 | 56.1 | 49\% | -26\% | -20\% | -29\% | -30\% |
| 32. $(+4)$ | Spain | Madrid | 75.7 | 53.5 | 58.1 | 55.8 | 48\% | -4\% | 4\% | -26\% | -27\% |
| 33. (+2) | Greece | Athens | 73.6 | 51.3 | 60.5 | 53.6 | 46\% | -11\% | -4\% | -27\% | -28\% |
| 34. (-7) | Austria | Vienna | 71.5 | 67.9 | 73.3 | 53.5 | 46\% | -27\% | -21\% | -25\% | -26\% |
| 35. (-3) | Indonesia | J akarta | 68.2 | 41.8 | 64.4 | 53.4 | 46\% | -17\% | -10\% | -22\% | -23\% |
| 36. (+5) | Mexico | Mexico City | 62.5 | 46.9 | 50.5 | 52.8 | 46\% | 5\% | 13\% | -16\% | -17\% |
| 37. (-6) | Malaysia | Kuala Lumpur | 74.8 | 63.5 | 65.9 | 49.6 | 43\% | -25\% | -18\% | -34\% | -34\% |
| 38. (-1) | Germany | Berlin | 64.3 | 55.7 | 55.2 | 47.9 | 42\% | -13\% | -6\% | -25\% | -26\% |
| 39. $(+3)$ | Portugal | Lisbon | 59.0 | 45.9 | 44.9 | 44.3 | 38\% | -1\% | 7\% | -25\% | -26\% |
| 40. (-1) | India | New Delhi | 46.9 | 61.1 | 52.6 | 41.1 | 36\% | -22\% | -15\% | -12\% | -13\% |
| 41. (-1) | India | Mumbai | 41.7 | 55.2 | 51.2 | 39.0 | 34\% | -24\% | -18\% | -7\% | -8\% |
| 42. $(+2)$ | Poland | Warsaw | 54.6 | 39.1 | 39.5 | 38.0 | 33\% | -4\% | 4\% | -30\% | -31\% |
| 43. (-5) | Philippines | Manila | 52.6 | 58.1 | 53.1 | 37.8 | 33\% | -29\% | -23\% | -28\% | -29\% |
| 44. (+2) | South Africa | Cape Town | 39.9 | 44.2 | 34.0 | 37.7 | 33\% | 11\% | 20\% | -5\% | -7\% |
| 45. (+2) | Czech Republic | Prague | 39.2 | 34.4 | 33.9 | 36.9 | 32\% | 9\% | 18\% | -6\% | -7\% |
| 46. (-1) | South Africa | J ohannesburg | 44.4 | 41.8 | 36.1 | 34.8 | 30\% | -4\% | 4\% | -22\% | -23\% |
| 47. (-4) | India | Bangalore | 38.1 | 38.9 | 41.1 | 34.7 | 30\% | -16\% | -8\% | -9\% | -10\% |

[^18]Figure 26: Annual subscription of the Economist

|  | Country | 2014 | 2015 | 2016 | 2017 | Relative to US | YoY Change (\%) | YoY <br> Change <br> (\%) Rel. To US | 3-yr Cum. <br> Change <br> (\%) | 3-yr Cum. Change (\%) Rel. To US |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | USD | USD | USD | USD |  |  |  |  |  |
| 01. (+1) | J apan | 417.6 | 516.4 | 567.1 | 623.7 | 152\% | 10\% | 10\% | 49\% | -42\% |
| 02. $(-1)$ | China | 64.0 | 403.6 | 590.4 | 596.6 | 145\% | 1\% | 1\% | 833\% | 263\% |
| 03. (-) | Hong Kong | 258.0 | 526.7 | 529.5 | 591.3 | 144\% | 12\% | 12\% | 129\% | -11\% |
| 04. (+2) | New Zealand | 411.7 | 506.7 | 456.7 | 533.7 | 130\% | 17\% | 17\% | 30\% | -50\% |
| 05. (-1) | Switzerland | 347.0 | 594.1 | 527.2 | 518.1 | 126\% | -2\% | -2\% | 49\% | -42\% |
| 06. (-1) | Singapore | 348.5 | 480.7 | 469.3 | 492.0 | 120\% | 5\% | 5\% | 41\% | -45\% |
| 07. (+19) | Brazil | 275.6 | 109.2 | 260.7 | 465.5 | 113\% | 79\% | 79\% | 69\% | -34\% |
| 08. (-) | Australia | 406.2 | 439.3 | 431.4 | 460.9 | 112\% | 7\% | 7\% | 13\% | -56\% |
| 09. (-) | Philippines | 255.3 | 477.1 | 417.1 | 460.4 | 112\% | 10\% | 10\% | 80\% | -30\% |
| 10. (-3) | South Africa | 191.2 | 209.3 | 450.5 | 459.0 | 112\% | 2\% | 2\% | 140\% | -7\% |
| 11. $(+1)$ | United States | 160.0 | 409.7 | 410.8 | 410.8 | 100\% | 0\% | 0\% | 157\% | 0\% |
| 12. (-1) | Denmark | NA | NA | 412.4 | 400.9 | 98\% | -3\% | -3\% | NA | NA |
| 13. (na) | Norway | NA | NA | NA | 396.9 | 97\% | NA | NA | NA | NA |
| 14. (-3) | Sweden | NA | NA | 413.2 | 383.7 | 93\% | -7\% | -7\% | NA | NA |
| 15. (+9) | Canada | 149.5 | 339.9 | 323.9 | 372.5 | 91\% | 15\% | 15\% | 149\% | -3\% |
| 16. (na) | Poland | NA | NA | NA | 362.3 | 88\% | NA | NA | NA | NA |
| 17. (-2) | France | 312.7 | 358.7 | 372.8 | 362.3 | 88\% | -3\% | -3\% | 16\% | -55\% |
| 17. (-2) | Italy | NA | NA | 372.8 | 362.3 | 88\% | -3\% | -3\% | NA | NA |
| 17. (-2) | Spain | NA | NA | 372.8 | 362.3 | 88\% | -3\% | -3\% | NA | NA |
| 17. $(-2)$ | Netherlands | NA | NA | 372.8 | 362.3 | 88\% | -3\% | -3\% | NA | NA |
| 17. (-2) | Belgium | NA | NA | 372.8 | 362.3 | 88\% | -3\% | -3\% | NA | NA |
| 17. (na) | Austria | NA | NA | NA | 362.3 | 88\% | NA | NA | NA | NA |
| 17. (na) | Greece | NA | NA | NA | 362.3 | 88\% | NA | NA | NA | NA |
| 17. (-) | Germany | 312.7 | 358.7 | 372.8 | 362.3 | 88\% | -3\% | -3\% | 16\% | -55\% |
| 17. (na) | Portugal | NA | NA | NA | 362.3 | 88\% | NA | NA | NA | NA |
| 17. (+1) | Finland | NA | NA | 372.8 | 362.3 | 88\% | -3\% | -3\% | NA | NA |
| 17. (na) | Ireland | NA | NA | NA | 362.3 | 88\% | NA | NA | NA | NA |
| 17. (na) | Turkey | NA | NA | NA | 362.3 | 88\% | NA | NA | NA | NA |
| 29. (-2) | Russia | 303.6 | 407.3 | 369.7 | 362.3 | 88\% | -2\% | -2\% | 19\% | -54\% |
| 29. (na) | Czech Republic | NA | NA | NA | 362.3 | 88\% | NA | NA | NA | NA |
| 31. (-1) | Malaysia | 91.7 | 342.6 | 332.7 | 349.9 | 85\% | 5\% | 5\% | 281\% | 49\% |
| 32. (-) | Indonesia | 48.0 | 390.1 | 287.6 | 344.8 | 84\% | 20\% | 20\% | 618\% | 180\% |
| 33. (-) | Mexico | 154.5 | 267.5 | 263.7 | 333.3 | 81\% | 26\% | 26\% | 116\% | -16\% |
| 34. (-5) | United Kingdom | 260.5 | 425.3 | 368.6 | 326.6 | 80\% | -11\% | -11\% | 25\% | -51\% |
| 35. (-) | India | 99.0 | 174.8 | 229.8 | 277.8 | 68\% | 21\% | 21\% | 181\% | 9\% |

Source: Official Website of the Economist
Notes: Prices of the Economist magazine for a year's subscription. We have added back any discounts that were on offer in individual countries.

## Appendix

Figure 27: Foreign Exchange Rates

|  | Country | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Yoy Change (\%) | 5-yr Cum. Change (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | USD | USD | USD | USD | USD | USD |  |  |
| 01. | Russia | 0.0341 | 0.0321 | 0.0277 | 0.0197 | 0.0151 | 0.0178 | 18\% | -48\% |
| 02. | Brazil | 0.5319 | 0.4997 | 0.4457 | 0.3388 | 0.2810 | 0.3177 | 13\% | -40\% |
| 03. | South Africa | 0.1289 | 0.1104 | 0.0937 | 0.0825 | 0.0690 | 0.0762 | 11\% | -41\% |
| 04. | India | 0.0190 | 0.0184 | 0.0165 | 0.0157 | 0.0150 | 0.0156 | 4\% | -18\% |
| 05. | New Zealand | 0.8123 | 0.8516 | 0.8576 | 0.7600 | 0.6851 | 0.6948 | 1\% | -14\% |
| 06. | Poland | 0.3157 | 0.3138 | 0.3285 | 0.2692 | 0.2554 | 0.2590 | 1\% | -18\% |
| 07. | J apan | 0.0123 | 0.0101 | 0.0098 | 0.0084 | 0.0090 | 0.0090 | 0\% | -27\% |
| 08. | United States | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0\% | 0\% |
| 09. | Hong Kong | 0.1289 | 0.1288 | 0.1290 | 0.1290 | 0.1289 | 0.1285 | 0\% | 0\% |
| 10. | Indonesia | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | -1\% | -31\% |
| 11. | Switzerland | 1.0984 | 1.0573 | 1.1340 | 1.0483 | 1.0256 | 1.0079 | -2\% | -8\% |
| 12. | Czech Republic | 0.0534 | 0.0505 | 0.0504 | 0.0396 | 0.0417 | 0.0407 | -2\% | -24\% |
| 13. | Australia | 1.0332 | 1.0299 | 0.9273 | 0.7823 | 0.7714 | 0.7533 | -2\% | -27\% |
| 14. | Denmark | 0.1774 | 0.1745 | 0.1853 | 0.1457 | 0.1514 | 0.1472 | -3\% | -17\% |
| 15. | France | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Italy | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Spain | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Netherlands | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Belgium | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Austria | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Greece | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Germany | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Portugal | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Finland | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 15. | Ireland | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | -3\% | -17\% |
| 26. | Singapore | 0.8037 | 0.8068 | 0.7957 | 0.7507 | 0.7398 | 0.7177 | -3\% | -11\% |
| 27. | Norway | 0.1746 | 0.1702 | 0.1661 | 0.1286 | 0.1221 | 0.1169 | -4\% | -33\% |
| 28. | Philippines | 0.0234 | 0.0242 | 0.0224 | 0.0226 | 0.0213 | 0.0201 | -6\% | -14\% |
| 29. | China | 0.1586 | 0.1621 | 0.1599 | 0.1614 | 0.1540 | 0.1452 | -6\% | -8\% |
| 30. | Canada | 1.0161 | 0.9805 | 0.9059 | 0.8214 | 0.7885 | 0.7351 | -7\% | -28\% |
| 31. | Mexico | 0.0760 | 0.0825 | 0.0761 | 0.0650 | 0.0569 | 0.0529 | -7\% | -30\% |
| 32. | Sweden | 0.1485 | 0.1513 | 0.1518 | 0.1159 | 0.1230 | 0.1142 | -7\% | -23\% |
| 33. | Malaysia | 0.3268 | 0.3292 | 0.3058 | 0.2793 | 0.2559 | 0.2288 | -11\% | -30\% |
| 34. | United Kingdom | 1.6147 | 1.5430 | 1.6804 | 1.5188 | 1.4489 | 1.2840 | -11\% | -20\% |
| 35. | Turkey | 0.5650 | 0.5560 | 0.4686 | 0.3684 | 0.3513 | 0.2790 | -21\% | -51\% |

Source: Bloomberg
Notes: All rates are USD in terms of unit of local currency as on 25 April of each year.

Figure 28: Relative Price Levels as implied by PPP (US=100)

|  | Country | 2013 | 2014 | 2015 | 2016 | YoY Change (\%) | 3 -yr Cum. Change (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Switzerland | 152.4 | 160.1 | 145.7 | 139.2 | -4\% | -9\% |
| 02. (+3) | Denmark | 134.1 | 143.2 | 111.8 | 115.0 | 3\% | -14\% |
| 03. (-) | Australia | 155.6 | 137.3 | 115.5 | 112.1 | -3\% | -28\% |
| 04. (-2) | Norway | 152.7 | 151.3 | 118.2 | 110.6 | -6\% | -28\% |
| 05. (+3) | Sweden | 133.5 | 132.8 | 100.9 | 107.1 | 6\% | -20\% |
| 06. (+3) | Finland | 118.0 | 126.9 | 100.6 | 104.2 | 4\% | -12\% |
| 07. (-3) | New Zealand | 126.5 | 124.8 | 112.3 | 101.8 | -9\% | -20\% |
| 08. (-2) | United Kingdom | 107.7 | 117.0 | 106.0 | 101.0 | -5\% | -6\% |
| 09. (+1) | United States | 100.0 | 100.0 | 100.0 | 100.0 | 0\% | 0\% |
| 10. (-3) | Canada | 121.9 | 111.9 | 101.4 | 97.5 | -4\% | -20\% |
| 11. (+3) | Austria | 108.0 | 115.0 | 90.4 | 93.6 | 4\% | -13\% |
| 12. (-1) | Belgium | 109.1 | 116.4 | 91.0 | 93.3 | 2\% | -15\% |
| 13. (-1) | France | 109.9 | 116.1 | 90.5 | 92.6 | 2\% | -16\% |
| 14. (+2) | J apan | 108.1 | 102.5 | 86.3 | 92.3 | 7\% | -15\% |
| 15. (-) | Netherlands | 108.2 | 114.6 | 89.8 | 91.6 | 2\% | -15\% |
| 16. (-4) | Ireland | 107.6 | 115.4 | 90.5 | 91.0 | 1\% | -15\% |
| 17. (-) | Germany | 101.3 | 107.2 | 84.5 | 87.5 | 4\% | -14\% |
| 18. (-) | Italy | 99.9 | 105.8 | 82.9 | 85.2 | 3\% | -15\% |
| 19. (-) | Spain | 91.7 | 95.9 | 74.5 | 75.6 | 1\% | -18\% |
| 20. (-) | Hong Kong | 70.3 | 71.6 | 71.8 | 72.5 | 1\% | 3\% |
| 21. (-) | Greece | 90.2 | 93.8 | 70.9 | 70.8 | 0\% | -22\% |
| 22. (-) | Portugal | 81.7 | 84.9 | 67.2 | 68.8 | 2\% | -16\% |
| 23. (-) | Singapore | 71.9 | 69.9 | 64.7 | 62.4 | -4\% | -13\% |
| 24. (+2) | Czech Republic | 68.0 | 67.7 | 53.0 | 56.2 | 6\% | -17\% |
| 25. (-1) | China | 56.8 | 56.8 | 57.7 | 54.7 | -5\% | -4\% |
| 26. (-1) | Brazil | 73.5 | 69.5 | 55.9 | 49.1 | -12\% | -33\% |
| 27. (+1) | Poland | 57.2 | 60.2 | 48.7 | 45.6 | -6\% | -20\% |
| 28. (-1) | Mexico | 63.3 | 59.2 | 50.6 | 45.6 | -10\% | -28\% |
| 29. (+2) | Turkey | 54.9 | 48.8 | 40.1 | 40.4 | 1\% | -26\% |
| 30. (-) | Philippines | 43.3 | 40.0 | 40.6 | 38.8 | -4\% | -10\% |
| 31. (-2) | South Africa | 52.7 | 46.3 | 42.6 | 37.0 | -13\% | -30\% |
| 32. (-) | Malaysia | 48.0 | 44.3 | 39.9 | 36.7 | -8\% | -23\% |
| 33. (-) | Russia | 55.7 | 51.2 | 37.4 | 31.2 | -17\% | -44\% |
| 34. (-) | Indonesia | 37.1 | 31.8 | 29.4 | 29.8 | 1\% | -20\% |
| 35. (-) | India | 27.9 | 26.4 | 26.3 | 25.4 | -3\% | -9\% |

Source: IMF WEO, Bloomberg, Deutsche Bank calculations
Note: The PPP conversion rates as published by the IMF have been adjusted with actual foreign exchange rates (as on 25 Apr of each year) to derive the implied price levels. Also note that some of the above numbers may not match those published last year exactly due to data revisions.

Notes: Price levels are relative to the United States (100 in each year).

Figure 29: Changes in Consumer Price Indices (annual, \%)

|  | Country | 2012 | 2013 | 2014 | 2015 | 2016 |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: |
| Change (\%) |  |  |  |  |  |  | 5-yr Cum.

Source: Haver Analytics, Deutsche Bank calculations
Notes: Inflation is year on year change of CPI levels for every calendar year. Latest data is as of Q4 2016.

Figure 30: Quality of Life Index - Difference in ranks due to climate index

| Country | City | Quality of Life Index (incl. Climate) | Quality of Life Index (exc. Climate) | Change in rank when climate component is considered |
| :---: | :---: | :---: | :---: | :---: |
| New Zealand | Wellington | 1 | 1 | +0 |
| United Kingdom | Edinburgh | 2 | 3 | +1 |
| Austria | Vienna | 3 | 5 | +2 |
| Australia | Melbourne | 4 | 8 | +4 |
| Switzerland | Zurich | 5 | 4 | -1 |
| Denmark | Copenhagen | 6 | 7 | +1 |
| Canada | Ottawa | 7 | 2 | -5 |
| United States | Boston | 8 | 9 | +1 |
| Netherlands | Amsterdam | 9 | 11 | +2 |
| Australia | Sydney | 10 | 14 | +4 |
| Finland | Helsinki | 11 | 6 | -5 |
| Germany | Berlin | 11 | 10 | -1 |
| New Zealand | Auckland | 13 | 15 | +2 |
| Canada | Toronto | 14 | 12 | -2 |
| Portugal | Lisbon | 15 | 23 | +8 |
| Spain | Madrid | 16 | 20 | +4 |
| South Africa | Cape Town | 17 | 25 | +8 |
| United States | San Francisco | 18 | 26 | +8 |
| Czech Republic | Prague | 19 | 16 | -3 |
| Sweden | Stockholm | 20 | 13 | -7 |
| Ireland | Dublin | 21 | 24 | +3 |
| United States | Chicago | 22 | 18 | -4 |
| Poland | Warsaw | 23 | 22 | -1 |
| Belgium | Brussels | 24 | 27 | +3 |
| South Africa | J ohannesburg | 25 | 29 | +4 |
| Norway | Oslo | 26 | 17 | -9 |
| J apan | Tokyo | 27 | 21 | -6 |
| United States | New York | 28 | 30 | +2 |
| Italy | Milan | 29 | 31 | +2 |
| France | Paris | 30 | 32 | +2 |
| Turkey | Istanbul | 31 | 34 | +3 |
| Greece | Athens | 32 | 36 | +4 |
| United Kingdom | London | 33 | 33 | +0 |
| India | Bangalore | 34 | 28 | -6 |
| Mexico | Mexico City | 35 | 40 | +5 |
| Hong Kong | Hong Kong | 36 | 37 | +1 |
| China | Shanghai | 37 | 41 | +4 |
| Russia | Moscow | 38 | 38 | +0 |
| Singapore | Singapore | 39 | 19 | -20 |
| Brazil | Sao Paulo | 40 | 46 | +6 |
| India | Delhi | 41 | 39 | -2 |
| China | Beijing | 42 | 44 | +2 |
| Brazil | Rio de J aneiro | 43 | 47 | +4 |
| Indonesia | J akarta | 44 | 43 | -1 |
| India | Mumbai | 45 | 45 | +0 |
| Malaysia | Kuala Lumpur | 46 | 35 | -11 |
| Philippines | Manila | 47 | 42 | -5 |

Source: www.numbeo.com
Notes: A positive change in the rightmost column indicates that including the climate component has improved the city's rank relative to its rank without the climate component.

## Appendix 1

## Important Disclosures

## *Other information available upon request

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[^0]:    Source: www.numbeo.com

[^1]:    Source: www.expatistan.com

[^2]:    Source: Deutsche Bank calculations

[^3]:    Source: Deutsche Bank calculations

[^4]:    Source: Deutsche Bank calculations
    Notes: We have defined the bad habits package as 5 beers and 2 packs of cigarettes

[^5]:    Source: Avis-Car Rental

[^6]:    Source: Hyatt Hotels, equivalent hotel websites

[^7]:    Source: www.expatistan.com

[^8]:    Source: www.expatistan.com

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