# Global <br> Cross-Discipline <br> Thematic Research <br> Mapping the World's Prices 2018 

This is the 7th DB annual survey of global prices and living standards from various countries and cities around the world. We've focused the analysis on 50 cities relevant to global financial markets. We continue to 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 mostly use crowd sourcing as our input data.

In currency terms the last 12 months has been about Dollar and especially EM FX weakness (Brazil, Russia \& Turkey -10 to $-13 \%$ ) and Euro strength (+11\%). GBP (+9\%) has also bounced back. This hasn't changed the order at the top too much but it's caused a pause in the march of US cities up the top of the leaderboards in terms of salaries, rents and prices of goods and services. It's hard to believe now that when this report was first published in 2012, the US was a relatively very cheap place internationally.

The same cannot be said of Zurich which has perennially topped the expensiveness list in many categories often followed by Nordic/Scandinavian cities. Major European and US cities then jostle for position depending on the product/service. EM cities remain much cheaper and if anything the gap has been widening rather than narrowing over the lifetime of this report.

By the time next year's report comes out Brexit will have occurred and if we rank the main global European cities that could compete with London for big business we find that on a personal level it might depend on whether you value quality of life or simply want to maximise after rent disposable income. If it's the latter London has actually improved over the last 12 months thanks to cheaper rents and higher dollar adjusted salaries. In order Frankfurt (5th), London (13th), Amsterdam (17th), Dublin (25th), Paris (27th), Madrid (28th) and Milan (29th) make up the Brexit competitors list based purely on the money left in your pocket after rent. NYC is 7th on this list for those that want to completely escape or Zurich (1st) is top for those that want to escape the EU/UK but be close at hand to it.

If Brexit has made you view quality of life as the priority, Frankfurt (9th) is your best EU large city choice followed by Amsterdam (10th), Madrid (23rd), Dublin (28th), Paris (32nd), London (33rd) and Milan (34th). Zurich (2nd) and NYC (31st) are your possible alternatives.

In fact only four global cities make the top 10 in both quality of life and after rent disposable income. They are Zurich (2nd and 1st), Sydney (8th and 4th), Copenhagen (3rd and 10th) and Frankfurt (9th and 5th).

Generally MDW megacities are home to one of the big dilemmas in life. More money or a better quality of life. Here we show their ranks in terms of quality of life and after rent disposable income. Tokyo is seemingly the best balance between the two (13th, 15th). NYC (31st, 7th), Paris (32nd, 27th) and London (33rd, 13th) trail behind. EM megacities score very badly internationally on this

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measure as their wages lag MDW peers and they have much higher pollution, poorer health care and safety, and often more extreme climate.

If quality of life is your only concern then Wellington continues to be the best place of our 50 cities to live in. Zurich, Copenhagen, Edinburgh and Vienna fill out the top 5. At the other end of the scale quality of life is perceived to be much tougher in Brazil and China. This is always the most subjective measure as different people have vastly different criteria. Our study is not the definitive guide on the matter but a good starting point for debate.

For example last year a few people suggested mega cities should rank much higher due to their huge cultural/entertainment opportunities. We don't score on that basis here. It also only looks at averages. Megacities will be home to a select group of the most affluent in society and for this group the trade-off of life in a big city possibly works more in their favour. In contrast a low paid megacity worker may have an inferior lifestyle than their even lower paid more rural worker. However megacities always offer that aspirational dream that possibly makes up for a poor near-term lifestyle.

For those looking for a weekend getaway Copenhagen is the most expensive city in the world followed by Milan, Oslo, Vienna and Zurich. Istanbul is now the cheapest on the list helped by the large FX fall of late.

Zurich is again the place to make sure you choose your dates carefully or persuade the other party to pay. It's 30\% more expensive to date here than the next 4 cities (Copenhagen, Oslo, Tokyo, and Amsterdam). Marry young in Switzerland and save your top ranked disposable income.

Our 'bad habits' index of cigarettes and beers is most expensive in Oslo, Melbourne, Sydney, Auckland and Dubai. EM countries are generally very cheap places to over indulge on this basis.

For those living in Singapore, Copenhagen or Oslo you'll be pleased to know that you're likely to be more healthy than your international counterparts as it's so expensive to buy a car that surely you walk or cycle everywhere. Although Oslo and Copenhagen have the most expensive trainers so maybe live close to the office. Cars are 6th most expensive in Amsterdam but filling your car up is the priciest in the world, taxis the 4th, and car hire the 3rd, so again the bike sounds an attractive option. It shows how policy and duties help shape habits.

If you do happen to want to surf the net in a summer dress and have a beer at the same time then Dubai is the most expensive place in the world to do it as it tops the list in all three.

Interestingly with all the allegations around Russian interference in global elections via social media, Moscow has the cheapest internet in the world.

Please try to keep your house clean in Helsinki as that's where we see the highest cost in the world for hiring a cleaner. Perhaps bringing snow into the house makes it a tougher job than elsewhere. Indeed the top 5 cities on this measure are familiar with snow (Oslo, Zurich, Stockholm and Boston) even if the 6th (Sydney) and 7th place (San Fran) aren't.

Rather fittingly the cheapest place in the world to buy a cappuccino is Milan where it's a third of the cost in Copenhagen, Paris, Zurich or Hong Kong.

London only tops the list in most expensive public transport but it's $2 n d$ in the cost of cinema tickets and car rentals. So best to stay at home and watch TV instead.

If you're an Apple addict then best to wait until a holiday to the US, HK or Japan to upgrade. Brazil, Greece and Denmark are bad places to casually walk into an Apple store as these have the most expensive iPhones in the world.

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 to do so. Exchange rates should adjust for large price differentials across countries (or visa-versa), especially between areas of similar economic development. This is why this largely light hearted analysis of global living standards and the cost of goods and services should be relevant for all global investors as it should help monitor those regions that are cheap or expensive.

In this 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 services across the world (Figure 8 - Figure 30). Hopefully the piece stimulates debate and interest and highlights the relative prices around the globe and how this has changed through time.

Acknowledgement: Most of our price data is collected from Expatitsan. We would like to give special thanks to the founder Gerardo Robledillo for permitting us to use this data. Our Quality-of-Life indices and salary datasets use data collected from Numbeo. We would like to thank the founder Mladen Adamovic for permitting us to use the data from his website.

We would also like to acknowledge the work of Apurv Chaudhari in this report.
Notes on data and methodology: Like our 2017 study, we have collected the data by surveying prices posted on the internet as well as from secondary sources. In order to ensure 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 kept previous years' data points referring to the same point in time year to year (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. We have also updated our 2017 data to take into account revisions for that year since last year's report was published. This provides for a more fair comparison. Changes from 2017 ranks are also noted in brackets next to current ranks (+ve change means the city has moved up in ranks for the relevant category as compared to 2017).
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## Quality-of-Life Indices (ranks)

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); (8) regional climate likeability (climate index). Further details on methodology around data collection and aggregation can be found at the source website here.

Figure 1: Quality-of-Life Indices (ranks)
QoL Index Country

1. (-) New Zealand
2. (+3) Switzerland
3. (+3) Denmark
4. (-2) United Kingdom
5. (-2) Austria
6. $(+5) \quad$ Finland
7. (-3) Australia
8. (+2) Australia
9. (+6) Germany
10. (-1) Netherlands
11. (-4) United States
12. (+1) New Zealand
13. $(+16)$ Japan
14. (-3) Germany
15. (-7) Canada
$\begin{array}{ll}\text { 16. }(+3) & \text { United States } \\ \text { 17. }(+4) & \text { Sweden }\end{array}$
16. $(+10)$ United Arab Emirates
17. (+8) Norway Oslo
18. (-) Czech Republic
19. (-7) Canada Toront
20. $(+1)$ United States
21. $(-8) \quad$ Portuga

Singapor
27. (-9) South Af
28. (-6) Ireland
29. (-5) Poland
30. (-4) South Africa Johannesburg
31. (-1) United States New York
32. (-) France Paris
33. (+2) United Kingdom

London
$\begin{array}{ll}\text { 34. } & (-3) \\ \text { 35. } & (+1)\end{array}$ Italy
36. (-2) Greece
37. (-4) Turkey
38. $(+10)$ Malaysia Kuala Lumpur
39. (-1) Hong Kong Hong Kong
40. (-) Russia
41. (-4) Mexico
42. $(+1)$ India
43. (+4) India
44. (-2) Brazil
45. (+1) Indonesia
46. (-7) China
$\begin{array}{lll}\text { 47. }(+2) & \text { Philippines } & \text { Manila } \\ \text { 48. }(-3) & \text { Brazil } & \text { Rio de Janeiro }\end{array}$
49. (-5) China

City Purchasing Safety Index Health Care

| Purchasing Power Index | Safety Index | Health Care Index | Cost of Living Index | Property to Income Ratio | Traffic Commute Index | Pollution Index | Climate Index |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 10 | 24 | 28 | 4 | 4 | 1 | 5 |
| 2 | 4 | 8 | 49 | 14 | 10 | 3 | 30 |
| 9 | 5 | 6 | 43 | 9 | 6 | 6 | 26 |
| 16 | 14 | 3 | 25 | 7 | 2 | 7 | 24 |
| 18 | 8 | 5 | 26 | 29 | 1 | 5 | 33 |
| 13 | 7 | 15 | 38 | 26 | 13 | 2 | 41 |
| 4 | 22 | 14 | 30 | 11 | 21 | 12 | 9 |
| 5 | 18 | 13 | 37 | 17 | 33 | 13 | 7 |
| 1 | 27 | 23 | 27 | 10 | 3 | 24 | 23 |
| 22 | 15 | 19 | 41 | 19 | 5 | 14 | 18 |
| 12 | 12 | 7 | 36 | 12 | 35 | 10 | 35 |
| 19 | 28 | 10 | 35 | 20 | 19 | 11 | 1 |
| 15 | 1 | 1 | 45 | 30 | 24 | 25 | 22 |
| 14 | 19 | 21 | 21 | 15 | 7 | 23 | 29 |
| 29 | 17 | 18 | 24 | 36 | 22 | 8 | 13 |
| 8 | 33 | 22 | 46 | 13 | 31 | 16 | 6 |
| 10 | 29 | 34 | 33 | 32 | 20 | 4 | 37 |
| 6 | 3 | 37 | 22 | 3 | 25 | 26 | 49 |
| 17 | 21 | 12 | 48 | 23 | 11 | 9 | 43 |
| 35 | 9 | 16 | 16 | 37 | 8 | 18 | 32 |
| 21 | 16 | 9 | 23 | 25 | 28 | 19 | 39 |
| 3 | 43 | 32 | 32 | 2 | 30 | 21 | 38 |
| 27 | 20 | 2 | 20 | 18 | 14 | 28 | 21 |
| 42 | 13 | 26 | 18 | 34 | 12 | 20 | 3 |
| 28 | 2 | 25 | 44 | 44 | 32 | 15 | 45 |
| 20 | 37 | 4 | 34 | 5 | 9 | 33 | 25 |
| 36 | 46 | 17 | 12 | 8 | 36 | 22 | 4 |
| 30 | 34 | 48 | 39 | 21 | 16 | 17 | 20 |
| 37 | 11 | 41 | 8 | 24 | 17 | 27 | 34 |
| 11 | 49 | 42 | 13 | 1 | 34 | 32 | 12 |
| 23 | 24 | 35 | 47 | 27 | 29 | 29 | 31 |
| 25 | 38 | 11 | 42 | 38 | 27 | 36 | 15 |
| 24 | 30 | 28 | 40 | 42 | 38 | 30 | 17 |
| 38 | 26 | 20 | 31 | 35 | 18 | 35 | 16 |
| 26 | 31 | 27 | 1 | 6 | 45 | 43 | 14 |
| 44 | 32 | 47 | 19 | 16 | 15 | 31 | 8 |
| 45 | 35 | 29 | 6 | 28 | 43 | 38 | 10 |
| 32 | 44 | 38 | 9 | 22 | 26 | 39 | 47 |
| 34 | 6 | 36 | 29 | 47 | 23 | 37 | 27 |
| 41 | 25 | 45 | 10 | 41 | 44 | 34 | 48 |
| 43 | 45 | 39 | 4 | 31 | 40 | 45 | 11 |
| 33 | 42 | 31 | 2 | 33 | 46 | 48 | 44 |
| 39 | 23 | 32 | 3 | 46 | 48 | 46 | 36 |
| 47 | 47 | 46 | 14 | 43 | 41 | 42 | 2 |
| 49 | 40 | 42 | 7 | 39 | 49 | 41 | 40 |
| 40 | 36 | 44 | 17 | 48 | 39 | 44 | 28 |
| 46 | 41 | 30 | 5 | 40 | 47 | 49 | 42 |
| 48 | 48 | 49 | 15 | 45 | 42 | 40 | 19 |
| 31 | 39 | 40 | 11 | 49 | 37 | 47 | 46 |

Note: Index ranks are based on indices published periodically on source website.

Monthly Income and Rents

| Figur | Monthly Sala | Net of T |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change <br> (\%) Rel. To <br> NY | 3-yr Cum Change (\%) | 3 -yr Cum. Change (\%) Rel. To NY |
| 01. (-) | Switzerland | Zurich | 7,171 | 6,625 | 5,851 | 5,986 | 5,764 | 140\% | -4\% | -4\% | -13\% | -29\% |
| 02. (+1) | United States | San Francisco | 3,470 | 4,059 | 4,282 | 3,976 | 4,974 | 121\% | 25\% | 25\% | 23\% | 1\% |
| 03. (-1) | United States | New York City | 3,476 | 3,376 | 4,027 | 4,121 | 4,115 | 100\% | 0\% | 0\% | 22\% | 0\% |
| 04. (-) | Australia | Sydney | 4,458 | 3,612 | 3,560 | 3,723 | 3,914 | 95\% | 5\% | 5\% | 8\% | -11\% |
| 05. (+1) | United States | Boston | 3,494 | 3,421 | 4,361 | 3,445 | 3,740 | 91\% | 9\% | 9\% | 9\% | -10\% |
| 06. (+2) | Norway | Oslo | 4,606 | 3,498 | 3,309 | 3,319 | 3,664 | 89\% | 10\% | 11\% | 5\% | -14\% |
| 07. (-) | United States | Chicago | 3,247 | 3,003 | 3,579 | 3,328 | 3,650 | 89\% | 10\% | 10\% | 22\% | 0\% |
| 08. (+3) | Denmark | Copenhagen | 3,601 | 2,856 | 2,985 | 3,119 | 3,462 | 84\% | 11\% | 11\% | 21\% | -1\% |
| 09. (-4) | United Arab Emirates | Dubai | 3,131 | 3,258 | 3,333 | 3,548 | 3,447 | 84\% | -3\% | -3\% | 6\% | -13\% |
| 10. (-) | Germany | Frankfurt | 3,413 | 2,641 | 2,696 | 3,149 | 3,389 | 82\% | 8\% | 8\% | 28\% | 5\% |
| 11. $(+2)$ | United Kingdom | London | 3,193 | 3,040 | 3,025 | 2,904 | 3,381 | 82\% | 16\% | 17\% | 11\% | -9\% |
| 12. $(-3)$ | Australia | Melbourne | 3,841 | 3,357 | 3,516 | 3,231 | 3,263 | 79\% | 1\% | 1\% | -3\% | -20\% |
| 13. $(-1)$ | Singapore | Singapore | 3,098 | 3,210 | 3,134 | 3,023 | 3,099 | 75\% | 2\% | 3\% | -3\% | -21\% |
| 14. $(+3)$ | Netherlands | Amsterdam | 3,314 | 2,657 | 2,478 | 2,747 | 3,058 | 74\% | 11\% | 11\% | 15\% | -6\% |
| 15. (-) | Japan | Tokyo | 2,696 | 2,646 | 2,746 | 2,865 | 3,004 | 73\% | 5\% | 5\% | 14\% | -7\% |
| 16. (-) | Sweden | Stockholm | 3,388 | 2,716 | 2,827 | 2,781 | 2,999 | 73\% | 8\% | 8\% | 10\% | -9\% |
| 17. (+1) | Finland | Helsinki | 3,009 | 2,639 | 2,726 | 2,718 | 2,988 | 73\% | 10\% | 10\% | 13\% | -7\% |
| 18. (-4) | New Zealand | Wellington | 2,805 | 2,598 | 2,799 | 2,871 | 2,946 | 72\% | 3\% | 3\% | 13\% | -7\% |
| 19. (+2) | France | Paris | 3,016 | 2,493 | 2,633 | 2,577 | 2,886 | 70\% | 12\% | 12\% | 16\% | -5\% |
| 20. $(+3)$ | Ireland | Dublin | 2,949 | 2,675 | 2,775 | 2,444 | 2,762 | 67\% | 13\% | 13\% | 3\% | -15\% |
| 21. (-1) | New Zealand | Auckland | 2,666 | 2,720 | 2,629 | 2,616 | 2,723 | 66\% | 4\% | 4\% | 0\% | -18\% |
| 22. $(+4)$ | United Kingdom | Edinburgh | 2,824 | 2,613 | 2,480 | 2,289 | 2,565 | 62\% | 12\% | 12\% | -2\% | -19\% |
| 23. (-4) | Hong Kong | Hong Kong | 2,589 | 2,921 | 2,659 | 2,704 | 2,550 | 62\% | -6\% | -6\% | -13\% | -28\% |
| 24. (-2) | Canada | Toronto | 3,077 | 2,795 | 2,721 | 2,463 | 2,519 | 61\% | 2\% | 2\% | -10\% | -26\% |
| 25. (+2) | Germany | Berlin | 2,519 | 1,990 | 2,273 | 2,270 | 2,482 | 60\% | 9\% | 10\% | 25\% | 2\% |
| 26. (-1) | Belgium | Brussels | 2,620 | 2,221 | 2,228 | 2,308 | 2,480 | 60\% | 7\% | 8\% | 12\% | -8\% |
| 27. (-3) | Canada | Vancouver | 3,002 | 2,541 | 2,298 | 2,362 | 2,458 | 60\% | 4\% | 4\% | -3\% | -21\% |
| 28. (-) | Austria | Vienna | 2,515 | 2,051 | 2,072 | 2,050 | 2,425 | 59\% | 18\% | 18\% | 18\% | -3\% |
| 29. (-) | Spain | Madrid | 2,002 | 1,571 | 1,635 | 1,792 | 1,975 | 48\% | 10\% | 10\% | 26\% | 3\% |
| 30. (+1) | Italy | Milan | 2,231 | 1,817 | 1,856 | 1,707 | 1,904 | 46\% | 12\% | 12\% | 5\% | -14\% |
| 31. (-1) | South Africa | Johannesburg | 2,023 | 1,568 | 1,368 | 1,782 | 1,663 | 40\% | -7\% | -7\% | 6\% | -13\% |
| 32. $(+1)$ | China | Shanghai | 1,482 | 1,489 | 1,450 | 1,290 | 1,337 | 32\% | 4\% | 4\% | -10\% | -26\% |
| 33. (+1) | Czech Republic | Prague | 1,259 | 958 | 1,038 | 1,073 | 1,294 | 31\% | 21\% | 21\% | 35\% | 11\% |
| 34. $(-2)$ | South Africa | Cape Town | 1,628 | 1,509 | 1,151 | 1,425 | 1,247 | 30\% | -12\% | -12\% | -17\% | -32\% |
| 35. (+1) | Poland | Warsaw | 1,242 | 943 | 953 | 993 | 1,128 | 27\% | 14\% | 14\% | 20\% | -2\% |
| 36. (+1) | Malaysia | Kuala Lumpur | 1,093 | 1,191 | 1,136 | 977 | 1,108 | 27\% | 13\% | 14\% | -7\% | -24\% |
| 37. (+1) | Portugal | Lisbon | 1,202 | 954 | 976 | 935 | 1,051 | 26\% | 12\% | 13\% | 10\% | -10\% |
| 38. $(-3)$ | Russia | Moscow | 1,390 | 1,022 | 834 | 1,060 | 957 | 23\% | -10\% | -10\% | -6\% | -23\% |
| 39. $(+2)$ | Greece | Athens | 1,022 | 772 | 789 | 776 | 883 | 21\% | 14\% | 14\% | 15\% | -6\% |
| 40. $(-1)$ | India | Bangalore | 705 | 718 | 707 | 834 | 764 | 19\% | -8\% | -8\% | 6\% | -13\% |
| 41. (-1) | India | Mumbai | 654 | 722 | 765 | 828 | 755 | 18\% | -9\% | -9\% | 5\% | -14\% |
| 42. (-) | Mexico | Mexico City | 906 | 715 | 703 | 744 | 667 | 16\% | -10\% | -10\% | -7\% | -23\% |
| 43. $(+1)$ | India | New Delhi | 639 | 586 | 630 | 685 | 666 | 16\% | -3\% | -3\% | 14\% | -7\% |
| 44. $(-1)$ | Turkey | Istanbul | 905 | 734 | 833 | 715 | 629 | 15\% | -12\% | -12\% | -14\% | -30\% |
| 45. (-) | Brazil | Sao Paulo | 1,042 | 649 | 614 | 672 | 587 | 14\% | -13\% | -12\% | -9\% | -26\% |
| 46. (-) | Brazil | Rio de Janeiro | 789 | 687 | 653 | 652 | 552 | 13\% | -15\% | -15\% | -20\% | -34\% |
| 47. (-) | Philippines | Manila | 569 | 483 | 560 | 564 | 498 | 12\% | -12\% | -11\% | 3\% | -15\% |
| 48. (-) | Indonesia | Jakarta | 393 | 469 | 619 | 481 | 436 | 11\% | -9\% | -9\% | -7\% | -24\% |

Source: www.numbeo.com.

Figure 3: Monthly Rent for Mid-Range 2 Bedroom Apartment

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3 -yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (+1) | Hong Kong | Hong Kong | 3,077 | 3,250 | 3,184 | 3,237 | 3,737 | 131\% | 15\% | 18\% | 15\% | 18\% |
| 02. (-1) | United States | San Francisco | 3,066 | 3,446 | 3,460 | 3,449 | 3,664 | 128\% | 6\% | 8\% | 6\% | 9\% |
| 03. (-) | United States | New York City | 2,901 | 2,926 | 2,801 | 2,909 | 2,854 | 100\% | -2\% | 0\% | -2\% | 0\% |
| 04. (+2) | France | Paris | 2,844 | 2,218 | 2,300 | 2,289 | 2,483 | 87\% | 8\% | 11\% | 12\% | 15\% |
| 05. (-1) | United Kingdom | London | 2,682 | 2,898 | 2,843 | 2,617 | 2,410 | 84\% | -8\% | -6\% | -17\% | -15\% |
| 06. (-1) | Switzerland | Zurich | 3,000 | 2,697 | 2,581 | 2,520 | 2,337 | 82\% | -7\% | -5\% | -13\% | -11\% |
| 07. (-) | United States | Boston | 2,177 | 2,349 | 2,069 | 2,225 | 2,164 | 76\% | -3\% | -1\% | -8\% | -6\% |
| 08. (-) | Australia | Sydney | 2,048 | 1,904 | 2,440 | 2,134 | 2,052 | 72\% | -4\% | -2\% | 8\% | 10\% |
| 09. (+4) | Ireland | Dublin | 1,634 | 1,283 | 1,499 | 1,694 | 2,048 | 72\% | 21\% | 23\% | 60\% | 64\% |
| 10. (-) | Singapore | Singapore | 2,428 | 2,347 | 2,114 | 1,884 | 1,974 | 69\% | 5\% | 7\% | -16\% | -14\% |
| 11. (-) | Norway | Oslo | 2,632 | 1,841 | 1,820 | 1,830 | 1,949 | 68\% | 6\% | 9\% | 6\% | 9\% |
| 12. (+3) | Netherlands | Amsterdam | 1,979 | 1,438 | 1,722 | 1,570 | 1,876 | 66\% | 20\% | 22\% | 30\% | 34\% |
| 13. (+3) | Denmark | Copenhagen | 1,617 | 1,545 | 1,733 | 1,548 | 1,848 | 65\% | 19\% | 22\% | 20\% | 23\% |
| 14. (-2) | United Arab Emirates | Dubai | 1,666 | 1,873 | 1,856 | 1,762 | 1,787 | 63\% | 1\% | 3\% | -5\% | -2\% |
| 15. (-6) | Japan | Tokyo | 1,625 | 1,532 | 2,323 | 2,010 | 1,740 | 61\% | -13\% | -12\% | 14\% | 16\% |
| 16. $(+1)$ | Finland | Helsinki | 1,820 | 1,410 | 1,539 | 1,547 | 1,729 | 61\% | 12\% | 14\% | 23\% | 26\% |
| 17. (+1) | New Zealand | Auckland | 1,208 | 1,389 | 1,408 | 1,512 | 1,652 | 58\% | 9\% | 11\% | 19\% | 22\% |
| 18. (+3) | Canada | Vancouver | 1,500 | 1,372 | 1,489 | 1,393 | 1,609 | 56\% | 16\% | 18\% | 17\% | 20\% |
| 19. (+5) | New Zealand | Wellington | 1,124 | 1,595 | 1,354 | 1,250 | 1,604 | 56\% | 28\% | 31\% | 1\% | 3\% |
| 20. (+3) | Sweden | Stockholm | 2,298 | 1,263 | 1,610 | 1,348 | 1,553 | 54\% | 15\% | 17\% | 23\% | 26\% |
| 21. (-7) | Australia | Melbourne | 1,735 | 1,802 | 2,118 | 1,658 | 1,512 | 53\% | -9\% | -7\% | -16\% | -14\% |
| 22. (-) | Canada | Toronto | 1,419 | 1,461 | 1,361 | 1,377 | 1,502 | 53\% | 9\% | 11\% | 3\% | 5\% |
| 23. $(-3)$ | United States | Chicago | 1,302 | 1,649 | 1,501 | 1,441 | 1,421 | 50\% | -1\% | 1\% | -14\% | -12\% |
| 24. (+1) | China | Shanghai | 1,119 | 1,108 | 1,325 | 1,249 | 1,343 | 47\% | 8\% | 10\% | 21\% | 24\% |
| 25. (+2) | Italy | Milan | 1,515 | 1,200 | 1,285 | 1,188 | 1,329 | 47\% | 12\% | 14\% | 11\% | 14\% |
| 26. $(-7)$ | Germany | Frankfurt | 1,370 | 1,137 | 1,216 | 1,463 | 1,310 | 46\% | -10\% | -9\% | 15\% | 18\% |
| 27. (-1) | United Kingdom | Edinburgh | 1,704 | 1,150 | 1,359 | 1,219 | 1,248 | 44\% | 2\% | 4\% | 9\% | 11\% |
| 28. (-) | Austria | Vienna | 1,253 | 1,067 | 1,140 | 1,125 | 1,175 | 41\% | 4\% | 6\% | 10\% | 13\% |
| 29. (+2) | Germany | Berlin | 1,119 | 921 | 1,045 | 1,044 | 1,160 | 41\% | 11\% | 13\% | 26\% | 29\% |
| 30. (+2) | Spain | Madrid | 1,180 | 887 | 985 | 922 | 1,148 | 40\% | 24\% | 27\% | 29\% | 33\% |
| 31. (-2) | Belgium | Brussels | 1,252 | 1,161 | 1,042 | 1,067 | 1,106 | 39\% | 4\% | 6\% | -5\% | -2\% |
| 32. (-2) | Russia | Moscow | 1,903 | 1,145 | 958 | 1,049 | 998 | 35\% | -5\% | -3\% | -13\% | -11\% |
| 33. (+4) | Portugal | Lisbon | 896 | 645 | 726 | 711 | 995 | 35\% | 40\% | 43\% | 54\% | 58\% |
| 34. (-) | South Africa | Cape Town | 706 | 780 | 664 | 864 | 939 | 33\% | 9\% | 11\% | 20\% | 23\% |
| 35. (-2) | Poland | Warsaw | 982 | 810 | 735 | 864 | 887 | 31\% | 3\% | 5\% | 10\% | 12\% |
| 36. (+2) | South Africa | Johannesburg | 771 | 697 | 573 | 710 | 878 | 31\% | 24\% | 26\% | 26\% | 29\% |
| 37. (+3) | Czech Republic | Prague | 798 | 615 | 690 | 677 | 875 | 31\% | 29\% | 32\% | 42\% | 46\% |
| 38. (-3) | Brazil | Rio de Janeiro | 1,215 | 1,026 | 816 | 853 | 771 | 27\% | -10\% | -8\% | -25\% | -23\% |
| 39. (-) | Mexico | Mexico City | 874 | 658 | 629 | 710 | 761 | 27\% | 7\% | 9\% | 16\% | 19\% |
| 40. (-4) | Brazil | Sao Paulo | 1,175 | 874 | 729 | 843 | 728 | 26\% | -14\% | -12\% | -17\% | -15\% |
| 41. (+4) | Greece | Athens | 645 | 494 | 541 | 514 | 613 | 21\% | 19\% | 21\% | 24\% | 27\% |
| 42. $(-1)$ | India | Mumbai | 490 | 509 | 614 | 592 | 612 | 21\% | 3\% | 5\% | 20\% | 23\% |
| 43. $(-1)$ | Indonesia | Jakarta | 792 | 662 | 650 | 581 | 562 | 20\% | -3\% | -2\% | -15\% | -13\% |
| 44. (-) | Philippines | Manila | 701 | 770 | 553 | 567 | 541 | 19\% | -5\% | -3\% | -30\% | -28\% |
| 45. (-2) | Turkey | Istanbul | 675 | 534 | 618 | 568 | 498 | 17\% | -12\% | -11\% | -7\% | -4\% |
| 46. (+1) | Malaysia | Kuala Lumpur | 580 | 592 | 511 | 428 | 479 | 17\% | 12\% | 14\% | -19\% | -17\% |
| 47. $(-1)$ | India | New Delhi | 301 | 354 | 373 | 470 | 346 | 12\% | -26\% | -25\% | -2\% | 0\% |
| 48. (-) | India | Bangalore | 256 | 285 | 328 | 296 | 289 | 10\% | -2\% | -1\% | 2\% | 4\% |
| Source: ww | w.expatisan.com |  |  |  |  |  |  |  |  |  |  |  |

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

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3 -yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Switzerland | Zurich | 5,671 | 5,277 | 4,561 | 4,726 | 4,595 | 171\% | -3\% | -4\% | -13\% | -38\% |
| 02. $(+9)$ | United States | San Francisco | 1,937 | 2,336 | 2,552 | 2,252 | 3,142 | 117\% | 40\% | 38\% | 35\% | -4\% |
| 03. $(+2)$ | United States | Chicago | 2,596 | 2,179 | 2,829 | 2,608 | 2,940 | 109\% | 13\% | 12\% | 35\% | -4\% |
| 04. (-) | Australia | Sydney | 3,434 | 2,660 | 2,340 | 2,656 | 2,887 | 107\% | 9\% | 8\% | 9\% | -23\% |
| 05. (+1) | Germany | Frankfurt | 2,728 | 2,072 | 2,088 | 2,418 | 2,735 | 102\% | 13\% | 12\% | 32\% | -6\% |
| 06. (+1) | Norway | Oslo | 3,290 | 2,577 | 2,399 | 2,403 | 2,689 | 100\% | 12\% | 11\% | 4\% | -26\% |
| 07. (-4) | United States | New York City | 2,026 | 1,913 | 2,626 | 2,667 | 2,688 | 100\% | 1\% | 0\% | 40\% | 0\% |
| 08. $(+2)$ | United States | Boston | 2,405 | 2,246 | 3,327 | 2,332 | 2,658 | 99\% | 14\% | 13\% | 18\% | -16\% |
| 09. (-7) | United Arab Emirates | Dubai | 2,298 | 2,322 | 2,405 | 2,667 | 2,554 | 95\% | -4\% | -5\% | 10\% | -22\% |
| 10. $(-1)$ | Denmark | Copenhagen | 2,793 | 2,084 | 2,119 | 2,345 | 2,538 | 94\% | 8\% | 7\% | 22\% | -13\% |
| 11. $(-3)$ | Australia | Melbourne | 2,974 | 2,456 | 2,457 | 2,402 | 2,507 | 93\% | 4\% | 4\% | 2\% | -27\% |
| 12. $(+1)$ | Sweden | Stockholm | 2,239 | 2,085 | 2,022 | 2,107 | 2,223 | 83\% | 6\% | 5\% | 7\% | -24\% |
| 13. $(+12)$ | United Kingdom | London | 1,852 | 1,591 | 1,604 | 1,596 | 2,176 | 81\% | 36\% | 35\% | 37\% | -3\% |
| 14. $(-2)$ | New Zealand | Wellington | 2,243 | 1,800 | 2,122 | 2,246 | 2,144 | 80\% | -5\% | -5\% | 19\% | -15\% |
| 15. $(+3)$ | Japan | Tokyo | 1,884 | 1,880 | 1,585 | 1,860 | 2,134 | 79\% | 15\% | 14\% | 14\% | -19\% |
| 16. (-) | Finland | Helsinki | 2,099 | 1,934 | 1,957 | 1,945 | 2,123 | 79\% | 9\% | 8\% | 10\% | -22\% |
| 17. (-2) | Netherlands | Amsterdam | 2,325 | 1,938 | 1,617 | 1,962 | 2,120 | 79\% | 8\% | 7\% | 9\% | -22\% |
| 18. $(-4)$ | Singapore | Singapore | 1,884 | 2,036 | 2,077 | 2,081 | 2,112 | 79\% | 1\% | 1\% | 4\% | -26\% |
| 19. $(+3)$ | United Kingdom | Edinburgh | 1,972 | 2,038 | 1,800 | 1,679 | 1,941 | 72\% | 16\% | 15\% | -5\% | -32\% |
| 20. (-) | Belgium | Brussels | 1,994 | 1,640 | 1,707 | 1,774 | 1,927 | 72\% | 9\% | 8\% | 17\% | -16\% |
| 21. (-) | Germany | Berlin | 1,960 | 1,530 | 1,751 | 1,748 | 1,902 | 71\% | 9\% | 8\% | 24\% | -11\% |
| 22. $(-5)$ | New Zealand | Auckland | 2,062 | 2,026 | 1,925 | 1,861 | 1,897 | 71\% | 2\% | 1\% | -6\% | -33\% |
| 23. $(+3)$ | Austria | Vienna | 1,888 | 1,518 | 1,502 | 1,487 | 1,838 | 68\% | 24\% | 23\% | 21\% | -14\% |
| 24. (-5) | Canada | Toronto | 2,368 | 2,065 | 2,041 | 1,774 | 1,768 | 66\% | 0\% | -1\% | -14\% | -39\% |
| 25. $(-1)$ | Ireland | Dublin | 2,132 | 2,034 | 2,025 | 1,597 | 1,738 | 65\% | 9\% | 8\% | -15\% | -39\% |
| 26. $(-3)$ | Canada | Vancouver | 2,252 | 1,855 | 1,554 | 1,665 | 1,653 | 61\% | -1\% | -2\% | -11\% | -37\% |
| 27. (-) | France | Paris | 1,594 | 1,384 | 1,484 | 1,432 | 1,644 | 61\% | 15\% | 14\% | 19\% | -15\% |
| 28. $(+1)$ | Spain | Madrid | 1,412 | 1,127 | 1,142 | 1,331 | 1,401 | 52\% | 5\% | 4\% | 24\% | -12\% |
| 29. $(+1)$ | Italy | Milan | 1,474 | 1,217 | 1,213 | 1,113 | 1,240 | 46\% | 11\% | 11\% | 2\% | -27\% |
| 30. $(-2)$ | South Africa | Johannesburg | 1,638 | 1,219 | 1,082 | 1,427 | 1,224 | 46\% | -14\% | -15\% | 0\% | -29\% |
| 31. $(+2)$ | Malaysia | Kuala Lumpur | 803 | 895 | 881 | 763 | 869 | 32\% | 14\% | 13\% | -3\% | -31\% |
| 32. $(+2)$ | Czech Republic | Prague | 860 | 650 | 693 | 734 | 857 | 32\% | 17\% | 16\% | 32\% | -6\% |
| 33. $(-1)$ | South Africa | Cape Town | 1,276 | 1,119 | 819 | 993 | 778 | 29\% | -22\% | -22\% | -30\% | -51\% |
| 34. $(+4)$ | Poland | Warsaw | 751 | 537 | 585 | 562 | 684 | 25\% | 22\% | 21\% | 27\% | -9\% |
| 35. (-4) | Hong Kong | Hong Kong | 1,050 | 1,296 | 1,067 | 1,085 | 682 | 25\% | -37\% | -38\% | -47\% | -63\% |
| 36. (-) | China | Shanghai | 922 | 935 | 787 | 666 | 665 | 25\% | 0\% | -1\% | -29\% | -49\% |
| 37. (-2) | India | Bangalore | 577 | 576 | 543 | 686 | 619 | 23\% | -10\% | -10\% | 8\% | -23\% |
| 38. $(+3)$ | Greece | Athens | 699 | 524 | 519 | 518 | 577 | 21\% | 11\% | 10\% | 10\% | -22\% |
| 39. $(-2)$ | Portugal | Lisbon | 753 | 631 | 613 | 580 | 554 | 21\% | -5\% | -5\% | -12\% | -38\% |
| 40. $(+2)$ | India | New Delhi | 488 | 409 | 443 | 450 | 493 | 18\% | 9\% | 9\% | 21\% | -14\% |
| 41. $(-2)$ | Russia | Moscow | 438 | 449 | 356 | 535 | 459 | 17\% | -14\% | -15\% | 2\% | -27\% |
| 42. $(-2)$ | India | Mumbai | 409 | 467 | 458 | 532 | 449 | 17\% | -16\% | -16\% | -4\% | -32\% |
| 43. (-) | Turkey | Istanbul | 568 | 467 | 524 | 431 | 380 | 14\% | -12\% | -13\% | -19\% | -42\% |
| 44. (-) | Mexico | Mexico City | 469 | 386 | 388 | 389 | 287 | 11\% | -26\% | -27\% | -26\% | -47\% |
| 45. (-) | Philippines | Manila | 218 | 98 | 283 | 280 | 228 | 8\% | -19\% | -19\% | 133\% | 66\% |
| 46. (-) | Brazil | Sao Paulo | 454 | 212 | 250 | 251 | 223 | 8\% | -11\% | -12\% | 5\% | -25\% |
| 47. (-) | Brazil | Rio de Janeiro | 182 | 173 | 246 | 226 | 167 | 6\% | -26\% | -27\% | -4\% | -31\% |
| 48. (-) | Indonesia | Jakarta | NA | 138 | 293 | 191 | 155 | 6\% | -19\% | -19\% | 12\% | -20\% |

Source: Deutsche Bank calculations.
Note: 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 | 2018 | Relative to NY |
| :---: | :---: | :---: | :---: | :---: |
| 01. (+1) | Denmark | Copenhagen | 2,503 | 189\% |
| 02. $(-1)$ | Italy | Milan | 2,484 | 188\% |
| 03. $(+7)$ | Norway | Oslo | 2,436 | 184\% |
| 04. (+2) | Austria | Vienna | 2,165 | 164\% |
| 05. (-2) | Switzerland | Zurich | 1,951 | 148\% |
| 06. $(+3)$ | United Kingdom | Edinburgh | 1,944 | 147\% |
| 07. (-2) | Sweden | Stockholm | 1,883 | 142\% |
| 08. $(+5)$ | France | Paris | 1,861 | 141\% |
| 09. $(+9)$ | Spain | Madrid | 1,825 | 138\% |
| 10. (-6) | United Kingdom | London | 1,805 | 136\% |
| 11. $(+8)$ | Finland | Helsinki | 1,735 | 131\% |
| 12. $(+5)$ | Ireland | Dublin | 1,716 | 130\% |
| 13. $(-5)$ | Netherlands | Amsterdam | 1,683 | 127\% |
| 14. (-) | Hong Kong | Hong Kong | 1,652 | 125\% |
| 15. $(+9)$ | Czech Republic | Prague | 1,468 | 111\% |
| 16. $(+9)$ | Indonesia | Jakarta | 1,445 | 109\% |
| 17. (-6) | United States | Chicago | 1,438 | 109\% |
| 18. $(-3)$ | United States | San Francisco | 1,393 | 105\% |
| 19. $(+3)$ | Singapore | Singapore | 1,369 | 104\% |
| 20. $(-8)$ | Russia | Moscow | 1,356 | 103\% |
| 21. $(+6)$ | Mexico | Mexico City | 1,350 | 102\% |
| 22. $(-1)$ | Japan | Tokyo | 1,327 | 100\% |
| 23. (-16) | United States | New York City | 1,322 | 100\% |
| 24. $(+5)$ | New Zealand | Auckland | 1,284 | 97\% |
| 25. (+22) | United Arab Emirates | Dubai | 1,281 | 97\% |
| 26. $(-3)$ | Australia | Melbourne | 1,195 | 90\% |
| 27. $(+3)$ | New Zealand | Wellington | 1,180 | 89\% |
| 28. $(+20)$ | Canada | Vancouver | 1,139 | 86\% |
| 29. $(+13)$ | Poland | Warsaw | 1,136 | 86\% |
| 30. $(+1)$ | Germany | Frankfurt | 1,131 | 85\% |
| 31. $(+7)$ | Greece | Athens | 1,105 | 84\% |
| 32. $(-16)$ | United States | Boston | 1,066 | 81\% |
| 33. $(+1)$ | South Africa | Cape Town | 1,065 | 81\% |
| 34. $(-2)$ | China | Shanghai | 1,062 | 80\% |
| 35. (-9) | Germany | Berlin | 1,019 | 77\% |
| 36. $(+4)$ | India | Mumbai | 1,016 | 77\% |
| 37. (-17) | Australia | Sydney | 1,015 | 77\% |
| 38. $(-10)$ | Canada | Toronto | 1,001 | 76\% |
| 39. $(-6)$ | Belgium | Brussels | 985 | 74\% |
| 40. $(-3)$ | Portugal | Lisbon | 977 | 74\% |
| 41. $(-2)$ | Malaysia | Kuala Lumpur | 914 | 69\% |
| 42. $(+1)$ | South Africa | Johannesburg | 910 | 69\% |
| 43. $(+2)$ | India | New Delhi | 848 | 64\% |
| 44. $(-3)$ | India | Bangalore | 840 | 63\% |
| 45. $(-9)$ | Brazil | Rio de Janeiro | 831 | 63\% |
| 46. $(-11)$ | Brazil | Sao Paulo | 725 | 55\% |
| 47. $(-3)$ | Philippines | Manila | 709 | 54\% |
| 48. $(-2)$ | Turkey | Istanbul | 575 | 44\% |

Source: Deutsche Bank calculation
Note. 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 rental for two days, two pints of beer, four litres of soft drinks/water and a bit of shopping (purchases of a pair of jeans and a pair of sports shoes).

| Figure 6: Cheap Date Index |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Country | City | 2018 | Relative to NY |
| 01. (-) | Switzerland | Zurich | 203.2 | 143\% |
| 02. ( +2 ) | Denmark | Copenhagen | 163.6 | 115\% |
| 03. (-1) | Norway | Oslo | 160.5 | 113\% |
| 04. (-1) | Japan | Tokyo | 160.5 | 113\% |
| 05. ( +1 ) | Netherlands | Amsterdam | 158.9 | 112\% |
| 06. ( +5 ) | United Kingdom | London | 155.0 | 109\% |
| 07. (-2) | Sweden | Stockholm | 149.8 | 106\% |
| 08. (-) | Finland | Helsinki | 149.4 | 105\% |
| 09. (-) | United States | San Francisco | 146.1 | 103\% |
| 10. (-3) | United States | New York City | 141.8 | 100\% |
| 11. $(+7)$ | France | Paris | 140.0 | 99\% |
| 12. (-2) | Belgium | Brussels | 134.9 | 95\% |
| 13. $(+4)$ | United Kingdom | Edinburgh | 134.4 | 95\% |
| 14. (-2) | Ireland | Dublin | 131.5 | 93\% |
| 15. ( +7 ) | Italy | Milan | 128.8 | 91\% |
| 16. (-) | New Zealand | Auckland | 128.2 | 90\% |
| 17. (-4) | United States | Chicago | 125.1 | 88\% |
| 18. $(+3)$ | Hong Kong | Hong Kong | 124.4 | 88\% |
| 19. (-5) | United States | Boston | 122.4 | 86\% |
| 20. $(+7)$ | Germany | Frankfurt | 122.1 | 86\% |
| 21. (-2) | Australia | Melbourne | 122.0 | 86\% |
| 22. ( +6 ) | Austria | Vienna | 120.1 | 85\% |
| 23. (-8) | Australia | Sydney | 119.8 | 84\% |
| 24. (-) | Canada | Toronto | 116.6 | 82\% |
| 25. (-5) | United Arab Emirates | Dubai | 116.3 | 82\% |
| 26. (-1) | Germany | Berlin | 110.6 | 78\% |
| 27. (-4) | New Zealand | Wellington | 110.6 | 78\% |
| 28. (-2) | Spain | Madrid | 105.8 | 75\% |
| 29. (-) | Canada | Vancouver | 103.9 | 73\% |
| 30. ( +2 ) | Greece | Athens | 97.8 | 69\% |
| 31. (-1) | Singapore | Singapore | 97.5 | 69\% |
| 32. $(+3)$ | Portugal | Lisbon | 88.5 | 62\% |
| 33. $(-2)$ | Brazil | Sao Paulo | 82.5 | 58\% |
| 34. $(+3)$ | South Africa | Johannesburg | 79.1 | 56\% |
| 35. (-2) | China | Shanghai | 77.5 | 55\% |
| 36. $(-2)$ | Brazil | Rio de Janeiro | 73.3 | 52\% |
| 37. (-1) | Russia | Moscow | 68.1 | 48\% |
| 38. (-) | Czech Republic | Prague | 67.8 | 48\% |
| 39. $(+2)$ | South Africa | Cape Town | 59.4 | 42\% |
| 40. (-) | Poland | Warsaw | 58.5 | 41\% |
| 41. (-2) | Turkey | Istanbul | 53.3 | 38\% |
| 42. $(+4)$ | Malaysia | Kuala Lumpur | 49.7 | 35\% |
| 43. (-) | Mexico | Mexico City | 48.2 | 34\% |
| 44. $(+3)$ | Indonesia | Jakarta | 46.3 | 33\% |
| 45. (-) | India | New Delhi | 45.4 | 32\% |
| 46. $(+2)$ | Philippines | Manila | 45.0 | 32\% |
| 47. (-3) | India | Bangalore | 43.2 | 30\% |
| 48. (-6) | India | Mumbai | 43.2 | 30\% |
| Source: Deutsche Bank calculations. <br> Note: We have defined as 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 | 2018 | Relative to NY | YoY Change (\%) | YoY Change <br> (\%) Rel. To NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) N | Norway | Oslo | 95.4 | 71.9 | 78.2 | 75.0 | 80.9 | 122\% | 8\% | 2\% | 13\% | 10\% |
| 02. (-) | Australia | Melbourne | 69.2 | 69.9 | 69.3 | 75.0 | 79.4 | 119\% | 6\% | 0\% | 14\% | 11\% |
| 03. (+1) | Australia | Sydney | 64.4 | 62.1 | 63.0 | 65.2 | 74.1 | 111\% | 14\% | 8\% | 19\% | 16\% |
| 04. (-1) N | New Zealand | Auckland | 62.2 | 63.0 | 61.0 | 65.3 | 73.5 | 111\% | 13\% | 7\% | 17\% | 14\% |
| 05. (+2) | United Arab Emirates | Dubai | 54.7 | 62.6 | 59.1 | 61.3 | 69.2 | 104\% | 13\% | 7\% | 10\% | 8\% |
| 06. (-) U | United States | New York City | 56.4 | 64.9 | 63.3 | 63.1 | 66.5 | 100\% | 5\% | 0\% | 2\% | 0\% |
| 07. (+1) N | New Zealand | Wellington | 63.0 | 64.6 | 58.9 | 60.3 | 65.0 | 98\% | 8\% | 2\% | 1\% | -2\% |
| 08. (+2) I | Ireland | Dublin | 59.5 | 53.4 | 56.4 | 56.1 | 64.6 | 97\% | 15\% | 9\% | 21\% | 18\% |
| 09. (+2) | United Kingdom | London | 60.3 | 58.6 | 61.7 | 55.3 | 64.1 | 96\% | 16\% | 10\% | 9\% | 7\% |
| 10. (-5) | Singapore | Singapore | 59.7 | 56.0 | 62.4 | 64.3 | 61.0 | 92\% | -5\% | -10\% | 9\% | 6\% |
| 11. (+1) | Hong Kong | Hong Kong | 50.1 | 41.7 | 51.0 | 53.5 | 59.1 | 89\% | 10\% | 5\% | 42\% | 38\% |
| 12. (+6) | United States | San Francisco | 38.2 | 46.4 | 45.5 | 45.5 | 57.0 | 86\% | 25\% | 19\% | 23\% | 20\% |
| 13. (-4) | United States | Boston | 47.0 | 46.3 | 51.0 | 57.2 | 55.5 | 83\% | -3\% | -8\% | 20\% | 17\% |
| 14. (-1) | United Kingdom | Edinburgh | 56.0 | 54.4 | 53.2 | 51.2 | 55.1 | 83\% | 7\% | 2\% | 1\% | -1\% |
| 15. (-) S | Switzerland | Zurich | 54.9 | 50.9 | 54.4 | 50.1 | 55.0 | 83\% | 10\% | 4\% | 8\% | 5\% |
| 16. (-2) F | France | Paris | 60.6 | 50.7 | 51.8 | 50.5 | 54.8 | 82\% | 8\% | 3\% | 8\% | 6\% |
| 17. (-1) | United States | Chicago | 47.6 | 52.9 | 55.3 | 49.0 | 53.5 | 80\% | 9\% | 4\% | 1\% | -1\% |
| 18. (+1) F | Finland | Helsinki | 52.8 | 46.3 | 46.6 | 45.0 | 50.9 | 77\% | 13\% | 7\% | 10\% | 7\% |
| 19. (-2) | Sweden | Stockholm | 61.7 | 46.3 | 50.7 | 47.9 | 50.5 | 76\% | 6\% | 0\% | 9\% | 6\% |
| 20. (+1) | Canada | Vancouver | 49.4 | 46.0 | 44.9 | 43.7 | 49.3 | 74\% | 13\% | 7\% | 7\% | 5\% |
| 21. (+1) | Canada | Toronto | 50.1 | 46.8 | 47.9 | 43.1 | 48.6 | 73\% | 13\% | 7\% | 4\% | 1\% |
| 22. (-2) | Denmark | Copenhagen | 51.0 | 42.8 | 47.2 | 45.0 | 47.6 | 72\% | 6\% | 0\% | 11\% | 8\% |
| 23. (+1) | Netherlands | Amsterdam | 33.3 | 36.3 | 40.5 | 38.2 | 46.8 | 70\% | 22\% | 16\% | 29\% | 26\% |
| 24. (-1) | Italy | Milan | 48.7 | 39.7 | 45.6 | 40.6 | 45.0 | 68\% | 11\% | 5\% | 13\% | 10\% |
| 25. (+1) | China | Shanghai | 37.6 | 30.6 | 37.6 | 35.7 | 41.1 | 62\% | 15\% | 9\% | 34\% | 31\% |
| 26. (-1) | Spain | Madrid | 32.2 | 37.7 | 44.3 | 37.7 | 41.1 | 62\% | 9\% | 3\% | 9\% | 6\% |
| 27. (+2) | Germany | Frankfurt | 37.3 | 29.7 | 32.9 | 32.4 | 38.5 | 58\% | 19\% | 13\% | 30\% | 27\% |
| 28. (-) | Belgium | Brussels | 32.2 | 32.1 | 33.5 | 33.0 | 37.4 | 56\% | 14\% | 8\% | 17\% | 14\% |
| 29. (-2) | Greece | Athens | 40.4 | 33.1 | 32.9 | 33.3 | 36.1 | 54\% | 8\% | 3\% | 9\% | 6\% |
| 29. (+2) | Austria | Vienna | 36.9 | 29.4 | 31.4 | 31.2 | 36.1 | 54\% | 15\% | 9\% | 22\% | 20\% |
| 31. (+5) | Malaysia | Kuala Lumpur | 43.4 | 37.3 | 35.0 | 28.3 | 35.5 | 53\% | 26\% | 19\% | -5\% | -7\% |
| 32. (-2) | Germany | Berlin | 33.5 | 27.5 | 30.7 | 31.4 | 34.6 | 52\% | 10\% | 5\% | 26\% | 23\% |
| 33. (-) J | Japan | Tokyo | 33.6 | 29.3 | 35.7 | 29.8 | 33.4 | 50\% | 12\% | 6\% | 14\% | 11\% |
| 34. $(+7)$ | Indonesia | Jakarta | 26.6 | 16.1 | 25.5 | 24.1 | 28.6 | 43\% | 19\% | 13\% | 78\% | 74\% |
| 35. (-1) P | Russia | Moscow | 33.3 | 24.3 | 23.7 | 29.0 | 27.6 | 42\% | -5\% | -10\% | 14\% | 11\% |
| 36. (-1) I | India | Mumbai | 20.8 | 21.4 | 25.3 | 28.5 | 26.8 | 40\% | -6\% | -11\% | 25\% | 22\% |
| 37. (+5) P | Portugal | Lisbon | 26.5 | 23.2 | 23.0 | 20.5 | 26.0 | 39\% | 27\% | 20\% | 12\% | 9\% |
| 38. (+2) | Brazil | Sao Paulo | 23.8 | 21.8 | 20.2 | 24.6 | 25.0 | 38\% | 1\% | -4\% | 15\% | 12\% |
| 39. (-7) I | India | New Delhi | 21.2 | 21.3 | 24.8 | 31.0 | 24.7 | 37\% | -20\% | -24\% | 16\% | 13\% |
| 40. (-2) T | Turkey | Istanbul | 30.0 | 26.7 | 29.0 | 26.0 | 24.6 | 37\% | -5\% | -10\% | -8\% | -10\% |
| 41. (-4) I | India | Bangalore | 20.5 | 20.4 | 19.6 | 27.6 | 23.1 | 35\% | -16\% | -21\% | 13\% | 11\% |
| 42. $(+1) \mathrm{P}$ | Poland | Warsaw | 23.4 | 19.3 | 19.7 | 19.2 | 22.2 | 33\% | 15\% | 9\% | 15\% | 12\% |
| 43. (-4) | Brazil | Rio de Janeiro | 20.4 | 19.2 | 19.3 | 24.8 | 20.4 | 31\% | -18\% | -22\% | 6\% | 4\% |
| 44. (+1) | South Africa | Cape Town | 15.0 | 14.6 | 13.7 | 16.7 | 19.2 | 29\% | 15\% | 9\% | 32\% | 29\% |
| 45. (+3) | South Africa | Johannesburg | 15.7 | 14.8 | 14.1 | 14.5 | 17.8 | 27\% | 23\% | 17\% | 20\% | 17\% |
| 46. (+1) C | Czech Republic | Prague | 16.4 | 13.0 | 14.1 | 14.6 | 17.6 | 26\% | 21\% | 15\% | 36\% | 33\% |
| 47. (-3) | Mexico | Mexico City | 22.3 | 19.1 | 18.7 | 19.0 | 17.5 | 26\% | -8\% | -13\% | -8\% | -11\% |
| 48. (-2) P | Philippines | Manila | 9.9 | 12.5 | 11.6 | 14.6 | 10.5 | 16\% | -28\% | -32\% | -16\% | -18\% |

Source: Deutsche Bank calculations.
Note: We have defined the bad habits package as 5 beers and 2 packs of cigarettes.

| Figure 8: iPhone 7 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Country | 2018 | Relative to US (\%) Relative to iPhone 6 S |  |
| 01. | Brazil | 1,061 | 150\% | 123\% |
| 02. | Turkey | 950 | 135\% | 118\% |
| 03. | Denmark | 948 | 134\% | 118\% |
| 04. | Italy | 937 | 133\% | 117\% |
| 04. | Portugal | 937 | 133\% | 117\% |
| 06. | Czech Republic | 933 | 132\% | 118\% |
| 07. | Poland | 930 | 132\% | 118\% |
| 08. | Finland | 925 | 131\% | 117\% |
| 08. | Ireland | 925 | 131\% | 117\% |
| 10. | India | 920 | 130\% | 118\% |
| 11. | Netherlands | 914 | 129\% | 117\% |
| 12. | France | 913 | 129\% | 117\% |
| 12. | Spain | 913 | 129\% | 117\% |
| 12. | Belgium | 913 | 129\% | 117\% |
| 15. | United Kingdom | 905 | 128\% | 118\% |
| 16. | Norway | 903 | 128\% | 118\% |
| 17. | Austria | 900 | 127\% | 117\% |
| 17. | Germany | 900 | 127\% | 117\% |
| 19. | Sweden | 877 | 124\% | 117\% |
| 20. | New Zealand | 847 | 120\% | 120\% |
| 21. | China | 844 | 119\% | 117\% |
| 22. | Russia | 833 | 118\% | 118\% |
| 23. | Malaysia | 831 | 118\% | 118\% |
| 24. | Mexico | 815 | 115\% | 119\% |
| 25. | Philippines | 802 | 114\% | 118\% |
| 26. | Switzerland | 791 | 112\% | 118\% |
| 27. | Singapore | 789 | 112\% | 118\% |
| 28. | Canada | 763 | 108\% | 118\% |
| 29. | Australia | 756 | 107\% | 118\% |
| 30. | United Arab Emirates | 743 | 105\% | N/A |
| 30. | Japan | 720 | 102\% | 118\% |
| 31. | Hong Kong | 712 | 101\% | 119\% |
| 32. | United States | 707 | 100\% | 118\% |
| Source: Official Apple Website, Online Retailers <br>  |  |  |  |  |


| Figure 9: iPhone 8 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Country | 2018 | Relative to US (\%) | Relative to iPhone |
| 01. | Brazil | 1,377 | 149\% | 130\% |
| 02. | Greece | 1,278 | 138\% | N/A |
| 03. | Denmark | 1,235 | 134\% | 130\% |
| 04. | Italy | 1,229 | 133\% | 131\% |
| 04. | Portugal | 1,229 | 133\% | 131\% |
| 06. | Czech Republic | 1,220 | 132\% | 131\% |
| 07. | Turkey | 1,219 | 132\% | 128\% |
| 08. | Poland | 1,218 | 132\% | 131\% |
| 09. | Finland | 1,217 | 132\% | 132\% |
| 09. | Ireland | 1,217 | 132\% | 132\% |
| 11. | Netherlands | 1,195 | 129\% | 131\% |
| 12. | France | 1,193 | 129\% | 131\% |
| 12. | Spain | 1,193 | 129\% | 131\% |
| 12. | Belgium | 1,193 | 129\% | 131\% |
| 15. | Norway | 1,192 | 129\% | 132\% |
| 16. | India | 1,187 | 128\% | 129\% |
| 17. | United Kingdom | 1,183 | 128\% | 131\% |
| 18. | Austria | 1,181 | 128\% | 131\% |
| 18. | Germany | 1,181 | 128\% | 131\% |
| 20. | Sweden | 1,134 | 123\% | 129\% |
| 21. | China | 1,126 | 122\% | 133\% |
| 22. | Malaysia | 1,125 | 122\% | 135\% |
| 23. | Russia | 1,105 | 120\% | 133\% |
| 24. | New Zealand | 1,094 | 118\% | 129\% |
| 25. | Mexico | 1,051 | 114\% | 129\% |
| 26. | Singapore | 1,045 | 113\% | 132\% |
| 27. | Switzerland | 1,045 | 113\% | 132\% |
| 28. | Philippines | 1,041 | 113\% | 130\% |
| 29. | Australia | 1,005 | 109\% | 133\% |
| 30. | Canada | 1,000 | 108\% | 131\% |
| 31. | United Arab Emirates | 995 | 108\% | 134\% |
| 31. | Japan | 947 | 102\% | 132\% |
| 32. | Hong Kong | 929 | 100\% | 130\% |
| 33. | United States | 924 | 100\% | 131\% |

Source. Official Apple Websit
Note: Prices are for iPhone 8, 4.7 inch screen, 256GB. The prices are sourced from official Apple store websites. In the absence of official prices via websites, we have used prices from online retailers and news websites.

| Figure 10: Daily Car Rental |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Country | City | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To US | $\begin{aligned} & \text { 3-yr Cum } \\ & \text { Change (\%) } \end{aligned}$ | $\begin{array}{r} \text { 3-yr Cum. } \\ \text { Change (\%) Rel. } \\ \text { To US } \end{array}$ |
| 01. (+8) | Hong Kong | Hong Kong | 220.5 | 157\% | 75\% | 87\% | 74\% | 109\% |
| 02. (+1) | United Kingdom | London | 183.1 | 131\% | 23\% | 31\% | 8\% | 29\% |
| 03. (-2) | Netherlands | Amsterdam | 178.4 | 127\% | 12\% | 20\% | NA | NA |
| 04. (+2) | Denmark | Copenhagen | 168.3 | 120\% | 21\% | 29\% | NA | NA |
| 05. (-1) | Norway | Oslo | 166.4 | 119\% | 12\% | 20\% | NA | NA |
| 06. (+2) | Indonesia | Jakarta | 161.7 | 116\% | 16\% | 24\% | NA | NA |
| 07. (+6) | Poland | Warsaw | 158.4 | 113\% | 38\% | 47\% | NA | NA |
| 08. ( +7 ) | Italy | Milan | 157.3 | 112\% | 39\% | 49\% | NA | NA |
| 09. (+1) | France | Paris | 145.1 | 104\% | 17\% | 25\% | -3\% | 16\% |
| 10. (+6) | Mexico | Mexico City | 143.9 | 103\% | 29\% | 38\% | -2\% | 17\% |
| 11. (-9) | United States | New York City | 140.0 | 100\% | -6\% | 0\% | -17\% | 0\% |
| 12. (-7) | Switzerland | Zurich | 138.9 | 99\% | -3\% | 4\% | NA | NA |
| 13. (-6) | Japan | Tokyo | 131.5 | 94\% | -6\% | 1\% | 5\% | 26\% |
| 14. (+3) | Spain | Madrid | 120.9 | 86\% | 12\% | 19\% | NA | NA |
| 15. (+3) | New Zealand | Wellington | 120.8 | 86\% | 14\% | 22\% | 1\% | 21\% |
| 16. (+6) | Finland | Helsinki | 119.7 | 85\% | 21\% | 29\% | NA | NA |
| 17. (-6) | Singapore | Singapore | 109.1 | 78\% | -12\% | -6\% | -29\% | -15\% |
| 18. (-6) | Sweden | Stockholm | 106.5 | 76\% | -8\% | -1\% | NA | NA |
| 19. ( +2 ) | Austria | Vienna | 100.6 | 72\% | -3\% | 3\% | NA | NA |
| 20. (+6) | Greece | Athens | 100.3 | 72\% | 23\% | 31\% | NA | NA |
| 21. (-2) | Czech Republic | Prague | 99.6 | 71\% | -6\% | 1\% | NA | NA |
| 22. (+1) | Belgium | Brussels | 80.9 | 58\% | -6\% | 0\% | NA | NA |
| 23. (-9) | Germany | Frankfurt | 78.0 | 56\% | -31\% | -26\% | -37\% | -24\% |
| 24. (+6) | Philippines | Manila | 75.5 | 54\% | -5\% | 1\% | NA | NA |
| 25. (+3) | Malaysia | Kuala Lumpur | 73.4 | 52\% | -8\% | -2\% | 1\% | 21\% |
| 26. (+5) | Australia | Sydney | 64.8 | 46\% | 17\% | 25\% | -27\% | -12\% |
| 27. (+2) | Ireland | Dublin | 64.8 | 46\% | -19\% | -13\% | NA | NA |
| 28. (-1) | Russia | Moscow | 61.9 | 44\% | -23\% | -18\% | -38\% | -26\% |
| 29. (+3) | India | New Delhi | 59.5 | 43\% | 34\% | 43\% | 27\% | 52\% |
| 30. (+6) | United Arab Emirates | Dubai | 57.5 | 41\% | NA | NA | NA | NA |
| 31. (-7) | Canada | Toronto | 54.1 | 39\% | -37\% | -33\% | -63\% | -55\% |
| 32. (+2) | South Africa | Johannesburg | 44.0 | 31\% | 7\% | 15\% | -5\% | 14\% |
| 33. (-8) | Turkey | Istanbul | 34.4 | 25\% | -58\% | -56\% | NA | NA |
| 34. (-1) | Brazil | Sao Paulo | 31.1 | 22\% | -27\% | -22\% | NA | NA |
| 35. (-15) | Portugal | Lisbon | 31.1 | 22\% | -70\% | -68\% | NA | NA |
| 36. (-1) | China | Shanghai | 30.2 | 22\% | 9\% | 16\% | 21\% | 45\% |
| Source: Avis Car Rental <br> Note: All quotes for bookings on 1-Jun to 2-Jun for the respective years. All car rents are sources 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 surchages; collision/loss damage waivers are also included where optional to facilitate comparability. Some car models which were used for the prices points have moved t 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 with a View

|  | Country | City | 2018 | Relative to NY |
| :---: | :---: | :---: | :---: | :---: |
| 01 | Italy | Milan | 837.1 | 321\% |
| 02 | Denmark | Copenhagen | 760.5 | 292\% |
| 03 | Austria | Vienna | 755.5 | 290\% |
| 04 | Spain | Madrid | 589.7 | 226\% |
| 05 | Sweden | Stockholm | 584.7 | 224\% |
| 06 | United Kingdom | Edinburgh | 571.5 | 219\% |
| 07 | Norway | Oslo | 556.3 | 214\% |
| 08 | Ireland | Dublin | 548.3 | 210\% |
| 09 | Switzerland | Zurich | 511.5 | 196\% |
| 10 | France | Paris | 509.7 | 196\% |
| 11 | Finland | Helsinki | 475.2 | 182\% |
| 12 | United Kingdom | London | 472.5 | 181\% |
| 13 | Czech Republic | Prague | 472.1 | 181\% |
| 14 | Indonesia | Jakarta | 435.6 | 167\% |
| 15 | Russia | Moscow | 415.7 | 160\% |
| 16 | Netherlands | Amsterdam | 393.9 | 151\% |
| 17 | Mexico | Mexico City | 391.5 | 150\% |
| 18 | United States | Chicago | 369.8 | 142\% |
| 19 | Hong Kong | Hong Kong | 347.6 | 133\% |
| 20 | Singapore | Singapore | 345.5 | 133\% |
| 21 | India | Mumbai | 339.6 | 130\% |
| 22 | South Africa | Cape Town | 336.4 | 129\% |
| 23 | Australia | Melbourne | 313.9 | 120\% |
| 24 | United Arab Emirates | Dubai | 313.0 | 120\% |
| 25 | Canada | Vancouver | 306.4 | 118\% |
| 26 | New Zealand | Auckland | 303.1 | 116\% |
| 27 | Japan | Tokyo | 295.5 | 113\% |
| 28 | United States | San Francisco | 290.5 | 111\% |
| 29 | China | Shanghai | 283.4 | 109\% |
| 30 | Germany | Frankfurt | 272.9 | 105\% |
| 31 | New Zealand | Wellington | 271.3 | 104\% |
| 32 | Poland | Warsaw | 268.9 | 103\% |
| 33 | United States | New York City | 260.5 | 100\% |
| 34 | India | Bangalore | 258.3 | 99\% |
| 35 | Portugal | Lisbon | 257.1 | 99\% |
| 36 | India | New Delhi | 251.3 | 96\% |
| 37 | South Africa | Johannesburg | 246.8 | 95\% |
| 38 | Malaysia | Kuala Lumpur | 244.0 | 94\% |
| 39 | Germany | Berlin | 242.5 | 93\% |
| 40 | Greece | Athens | 236.4 | 91\% |
| 41 | Canada | Toronto | 235.5 | 90\% |
| 42 | Brazil | Rio de Janeiro | 205.5 | 79\% |
| 43 | Australia | Sydney | 190.6 | 73\% |
| 44 | Philippines | Manila | 171.3 | 66\% |
| 45 | United States | Boston | 159.1 | 61\% |
| 46 | Belgium | Brussels | 156.3 | 60\% |
| 47 | Brazil | Sao Paulo | 153.3 | 59\% |
| 48 | Turkey | Istanbul | 118.8 | 46\% |

Source: Hyatt Hotels, equivalent hotel websites
Note: Room rent of King sized rooms for a day in mid-November in Hyatt Regency with a view. Where Hyatt Regency does not have a property in a prominent location, Park Hyatt Hotels have been considered. Signficant price differences between Hyatt Regency and Part Hyatt can occur. 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 Hotel (Auckland and Wellington), Hotel Villa Magna (Madrid), Grand Hotel (Stockholm), Westin Hotel (Cape Town), Four Seasons (Prague), Royal Olympic Hotel (Athens), Ritz Carlton (Kuala Lumpur), Grand Hotel (Oslo), Mamaison Hotel Le Regina (Warsaw) and Sofitel (Lisbon).

Figure 12: 2 Liters of Coca-Cola

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Norway | Oslo | 5.37 | 3.56 | 3.99 | 3.95 | 4.77 | 199\% | 21\% | 12\% | 34\% | 24\% |
| 02. (+1) | Finland | Helsinki | 4.64 | 3.63 | 2.93 | 3.05 | 3.66 | 152\% | 20\% | 11\% | 1\% | -7\% |
| 03. $(-1)$ | Denmark | Copenhagen | 4.93 | 3.23 | 3.32 | 3.13 | 3.43 | 143\% | 10\% | 2\% | 6\% | -2\% |
| 04. $(+5)$ | Netherlands | Amsterdam | 2.85 | 2.14 | 2.31 | 2.47 | 2.92 | 122\% | 19\% | 10\% | 36\% | 26\% |
| 05. (+1) | Belgium | Brussels | 2.80 | 1.89 | 2.22 | 2.58 | 2.80 | 117\% | 9\% | 1\% | 49\% | 37\% |
| 05. (+3) | Ireland | Dublin | 3.33 | 2.25 | 2.50 | 2.47 | 2.80 | 117\% | 14\% | 5\% | 25\% | 15\% |
| 07. (+6) | Australia | Sydney | 3.09 | 3.42 | 2.54 | 2.35 | 2.57 | 107\% | 9\% | 1\% | -25\% | -31\% |
| 08. $(+10)$ | Italy | Milan | 2.48 | 2.21 | 2.22 | 2.12 | 2.56 | 107\% | 21\% | 12\% | 16\% | 7\% |
| 09. (+3) | United Kingdom | London | 3.19 | 2.79 | 2.63 | 2.36 | 2.51 | 105\% | 6\% | -2\% | -10\% | -17\% |
| 09. $(+14)$ | United Kingdom | Edinburgh | 3.01 | 2.67 | 2.72 | 2.00 | 2.51 | 105\% | 26\% | 16\% | -6\% | -14\% |
| 11. (-6) | Australia | Melbourne | 3.23 | 2.67 | 2.56 | 2.60 | 2.50 | 104\% | -4\% | -11\% | -7\% | -14\% |
| 12. $(-1)$ | New Zealand | Wellington | 2.99 | 2.56 | 2.20 | 2.39 | 2.47 | 103\% | 4\% | -4\% | -3\% | -11\% |
| 12. $(+5)$ | New Zealand | Auckland | 3.37 | 2.41 | 2.32 | 2.13 | 2.47 | 103\% | 16\% | 8\% | 3\% | -5\% |
| 14. (-7) | Sweden | Stockholm | 3.04 | 2.42 | 2.53 | 2.52 | 2.46 | 102\% | -3\% | -10\% | 1\% | -6\% |
| 15. (-11) | Switzerland | Zurich | 2.89 | 2.81 | 2.81 | 2.79 | 2.44 | 102\% | -12\% | -19\% | -13\% | -20\% |
| 16. $(+3)$ | Austria | Vienna | 3.10 | 2.27 | 2.20 | 2.11 | 2.44 | 102\% | 15\% | 7\% | 7\% | -1\% |
| 16. $(+15)$ | Portugal | Lisbon | 2.25 | 1.86 | 1.87 | 1.77 | 2.44 | 102\% | 38\% | 28\% | 31\% | 21\% |
| 18. (-4) | United States | New York City | 2.30 | 2.21 | 2.30 | 2.22 | 2.40 | 100\% | 8\% | 0\% | 8\% | 0\% |
| 19. $(-4)$ | France | Paris | 3.06 | 2.24 | 2.31 | 2.22 | 2.32 | 96\% | 4\% | -4\% | 3\% | -5\% |
| 19. $(-3)$ | Greece | Athens | 2.82 | 2.01 | 2.19 | 2.20 | 2.32 | 96\% | 5\% | -3\% | 15\% | 6\% |
| 21. (-11) | United States | San Francisco | 2.45 | 2.05 | 2.22 | 2.42 | 2.30 | 96\% | -5\% | -12\% | 12\% | 4\% |
| 21. $(+5)$ | United States | Chicago | 1.73 | 1.83 | 1.90 | 1.92 | 2.30 | 96\% | 20\% | 11\% | 26\% | 16\% |
| 23. $(-3)$ | Hong Kong | Hong Kong | 1.62 | 2.22 | 1.87 | 2.06 | 2.04 | 85\% | -1\% | -8\% | -8\% | -15\% |
| 24. (-) | United States | Boston | 1.78 | 1.83 | 1.92 | 1.97 | 2.00 | 83\% | 1\% | -6\% | 9\% | 1\% |
| 25. $(+2)$ | Singapore | Singapore | 2.26 | 2.01 | 1.91 | 1.91 | 1.96 | 82\% | 2\% | -5\% | -3\% | -10\% |
| 26. $(+4)$ | Germany | Frankfurt | 2.50 | 2.05 | 1.88 | 1.80 | 1.95 | 81\% | 8\% | 0\% | -5\% | -12\% |
| 27. (+1) | Canada | Vancouver | 2.26 | 2.22 | 1.73 | 1.91 | 1.94 | 81\% | 2\% | -6\% | -12\% | -19\% |
| 28. $(-7)$ | Brazil | Sao Paulo | 2.11 | 1.75 | 1.61 | 2.02 | 1.87 | 78\% | -7\% | -14\% | 7\% | -1\% |
| 28. (-3) | Brazil | Rio de Janeiro | 1.98 | 1.69 | 1.52 | 1.96 | 1.87 | 78\% | -5\% | -12\% | 10\% | 2\% |
| 30. (+2) | Canada | Toronto | 1.93 | 1.93 | 1.91 | 1.71 | 1.86 | 78\% | 9\% | 1\% | -4\% | -11\% |
| 31. (-9) | Japan | Tokyo | 3.11 | 1.93 | 2.26 | 2.01 | 1.79 | 75\% | -11\% | -17\% | -7\% | -15\% |
| 32. $(+6)$ | United Arab Emirates | Dubai | 1.39 | 1.44 | 1.31 | 1.31 | 1.72 | 71\% | 31\% | 22\% | 19\% | 10\% |
| 33. $(-4)$ | Germany | Berlin | 2.29 | 1.62 | 1.89 | 1.81 | 1.71 | 71\% | -6\% | -13\% | 6\% | -3\% |
| 33. (-) | Spain | Madrid | 2.12 | 1.59 | 1.64 | 1.68 | 1.71 | 71\% | 2\% | -6\% | 8\% | -1\% |
| 35. $(+11)$ | Indonesia | Jakarta | 1.47 | 1.26 | 1.43 | 1.14 | 1.69 | 71\% | 49\% | 38\% | 34\% | 24\% |
| 36. (-) | Czech Republic | Prague | 1.78 | 1.36 | 1.39 | 1.31 | 1.58 | 66\% | 21\% | 12\% | 16\% | 7\% |
| 37. (-3) | Russia | Moscow | 1.73 | 1.39 | 1.18 | 1.54 | 1.52 | 63\% | -1\% | -8\% | 9\% | 1\% |
| 38. $(-3)$ | Poland | Warsaw | 1.79 | 1.57 | 1.37 | 1.39 | 1.47 | 61\% | 6\% | -2\% | -6\% | -14\% |
| 39. $(+4)$ | South Africa | Cape Town | 1.35 | 1.29 | 1.07 | 1.19 | 1.36 | 57\% | 15\% | 6\% | 6\% | -2\% |
| 40. (+4) | South Africa | Johannesburg | 1.51 | 1.26 | 1.12 | 1.17 | 1.28 | 53\% | 10\% | 2\% | 2\% | -6\% |
| 41. (-4) | Philippines | Manila | 1.22 | 1.49 | 1.49 | 1.31 | 1.28 | 53\% | -2\% | -9\% | -14\% | -21\% |
| 42. $(-1)$ | China | Shanghai | 1.42 | 1.38 | 1.31 | 1.21 | 1.26 | 53\% | 5\% | -3\% | -9\% | -16\% |
| 43. $(-4)$ | Mexico | Mexico City | 1.49 | 1.39 | 1.20 | 1.28 | 1.26 | 53\% | -1\% | -8\% | -10\% | -17\% |
| 44. (-4) | India | New Delhi | 1.08 | 1.13 | 1.11 | 1.22 | 1.18 | 49\% | -3\% | -10\% | 4\% | -4\% |
| 45. (-3) | India | Mumbai | 1.00 | 1.03 | 1.03 | 1.20 | 1.17 | 49\% | -3\% | -10\% | 14\% | 5\% |
| 45. (-) | India | Bangalore | 1.06 | 1.14 | 1.04 | 1.16 | 1.17 | 49\% | 1\% | -7\% | 2\% | -6\% |
| 47. (+1) | Malaysia | Kuala Lumpur | 1.27 | 1.04 | 1.02 | 0.95 | 1.12 | 47\% | 19\% | 10\% | 8\% | 0\% |
| 48. $(-1)$ | Turkey | Istanbul | 1.33 | 1.17 | 1.05 | 0.99 | 0.93 | 39\% | -7\% | -14\% | -21\% | -27\% |

Source: www.expatisan.com

Figure 13: Beer in a Neighborhood Pub ( 500 ml or 1 pint) in Expat Area

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3-yr Cum Change (\% Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | United Arab Emirates | Dubai | 9.5 | 11.4 | 10.6 | 11.2 | 12.0 | 156\% | 7\% | 3\% | 5\% | 4\% |
| 02. (-) | Norway | Oslo | 12.1 | 9.3 | 10.1 | 9.9 | 10.3 | 134\% | 4\% | 0\% | 11\% | 10\% |
| 03. $(+1)$ | Hong Kong | Hong Kong | 7.2 | 5.5 | 7.1 | 7.7 | 8.9 | 116\% | 16\% | 12\% | 63\% | 62\% |
| 04. (-1) | Singapore | Singapore | 8.1 | 7.4 | 8.7 | 9.0 | 8.3 | 108\% | -8\% | -12\% | 12\% | 11\% |
| 05. (+4) | Switzerland | Zurich | 7.5 | 6.7 | 7.4 | 6.7 | 7.7 | 100\% | 15\% | 10\% | 15\% | 14\% |
| 06. (-1) | United States | New York City | 6.4 | 7.6 | 7.2 | 7.4 | 7.7 | 100\% | 4\% | 0\% | 1\% | 0\% |
| 07. (+9) | United States | San Francisco | 5.0 | 6.4 | 6.2 | 6.2 | 7.4 | 96\% | 20\% | 15\% | 16\% | 15\% |
| 08. (-1) | France | Paris | 8.3 | 7.1 | 7.2 | 7.0 | 7.3 | 95\% | 4\% | 0\% | 3\% | 2\% |
| 09. (-1) | Sweden | Stockholm | 8.9 | 6.6 | 7.2 | 6.9 | 7.3 | 94\% | 6\% | 1\% | 11\% | 10\% |
| 10. (+4) | United Kingdom | London | 6.5 | 6.4 | 7.0 | 6.4 | 7.2 | 94\% | 14\% | 9\% | 13\% | 12\% |
| 11. (+2) | Ireland | Dublin | 6.6 | 6.3 | 6.6 | 6.5 | 7.1 | 92\% | 9\% | 5\% | 12\% | 11\% |
| 11. (+4) | Finland | Helsinki | 7.5 | 6.8 | 6.7 | 6.3 | 7.1 | 92\% | 12\% | 7\% | 5\% | 4\% |
| 13. $(-2)$ | New Zealand | Auckland | 6.5 | 6.3 | 6.0 | 6.5 | 7.1 | 92\% | 8\% | 4\% | 11\% | 10\% |
| 14. (+3) | China | Shanghai | 6.4 | 5.1 | 6.3 | 5.9 | 7.0 | 90\% | 18\% | 13\% | 37\% | 36\% |
| 15. $(-5)$ | Australia | Melbourne | 6.9 | 6.6 | 6.5 | 6.7 | 6.8 | 88\% | 1\% | -3\% | 3\% | 2\% |
| 16. (-4) | Denmark | Copenhagen | 7.0 | 6.1 | 6.8 | 6.5 | 6.7 | 87\% | 3\% | -1\% | 10\% | 9\% |
| 17. (-11) | United States | Boston | 5.6 | 5.3 | 6.1 | 7.2 | 6.7 | 87\% | -7\% | -11\% | 27\% | 26\% |
| 18. (-) | Italy | Milan | 7.0 | 5.7 | 6.8 | 5.8 | 6.5 | 84\% | 11\% | 6\% | 13\% | 12\% |
| 19. (+9) | Netherlands | Amsterdam | 3.4 | 4.6 | 5.3 | 4.8 | 6.1 | 79\% | 27\% | 22\% | 31\% | 30\% |
| 20. (+2) | Australia | Sydney | 6.0 | 5.4 | 5.4 | 5.4 | 6.1 | 79\% | 13\% | 8\% | 11\% | 10\% |
| 21. $(-1)$ | United Kingdom | Edinburgh | 5.7 | 5.9 | 5.4 | 5.8 | 6.0 | 78\% | 4\% | 0\% | 1\% | 0\% |
| 22. $(+1)$ | United States | Chicago | 5.1 | 6.1 | 6.1 | 5.3 | 5.9 | 77\% | 11\% | 7\% | -3\% | -4\% |
| 23. $(-2)$ | Spain | Madrid | 3.8 | 5.4 | 6.6 | 5.4 | 5.7 | 74\% | 6\% | 1\% | 6\% | 5\% |
| 24. (-) | Canada | Toronto | 6.4 | 5.7 | 5.8 | 5.1 | 5.7 | 74\% | 11\% | 6\% | 0\% | -1\% |
| 25. (-6) | New Zealand | Wellington | 6.7 | 6.7 | 5.8 | 5.8 | 5.7 | 73\% | -2\% | -6\% | -16\% | -16\% |
| 26. (-) | Canada | Vancouver | 5.9 | 5.3 | 5.2 | 4.9 | 5.5 | 72\% | 12\% | 7\% | 5\% | 4\% |
| 27. (+6) | Malaysia | Kuala Lumpur | 7.2 | 6.0 | 5.4 | 4.1 | 5.4 | 70\% | 31\% | 25\% | -11\% | -12\% |
| 28. $(-1)$ | Greece | Athens | 5.9 | 4.9 | 4.8 | 4.9 | 5.1 | 66\% | 5\% | 0\% | 4\% | 3\% |
| 29. $(+3)$ | Indonesia | Jakarta | 4.7 | 2.7 | 4.5 | 4.2 | 5.0 | 66\% | 20\% | 15\% | 87\% | 85\% |
| 30. (+1) | Japan | Tokyo | 5.0 | 4.4 | 5.5 | 4.3 | 5.0 | 65\% | 15\% | 10\% | 14\% | 13\% |
| 31. (-6) | Russia | Moscow | 5.9 | 4.2 | 4.1 | 5.0 | 4.7 | 61\% | -6\% | -9\% | 11\% | 10\% |
| 32. (+2) | Austria | Vienna | 4.7 | 3.7 | 4.0 | 4.0 | 4.6 | 60\% | 15\% | 11\% | 24\% | 23\% |
| 32. (+6) | Germany | Frankfurt | 4.6 | 3.7 | 3.9 | 3.8 | 4.6 | 60\% | 20\% | 16\% | 26\% | 25\% |
| 34. (+2) | Belgium | Brussels | 3.5 | 4.0 | 4.1 | 4.0 | 4.5 | 59\% | 14\% | 9\% | 13\% | 12\% |
| 35. (-5) | India | Mumbai | 3.0 | 3.2 | 3.8 | 4.4 | 3.9 | 51\% | -10\% | -13\% | 23\% | 21\% |
| 36. (+5) | Germany | Berlin | 3.9 | 3.2 | 3.5 | 3.6 | 3.9 | 51\% | 9\% | 4\% | 23\% | 22\% |
| 37. (+3) | Brazil | Sao Paulo | 3.6 | 3.4 | 3.2 | 3.8 | 3.7 | 48\% | -3\% | -7\% | 9\% | 8\% |
| 38. (+1) | Turkey | Istanbul | 4.3 | 3.9 | 4.4 | 3.8 | 3.7 | 47\% | -5\% | -9\% | -6\% | -7\% |
| 39. $(-10)$ | India | New Delhi | 3.2 | 3.0 | 3.7 | 4.5 | 3.4 | 44\% | -25\% | -28\% | 13\% | 12\% |
| 40. (-5) | India | Bangalore | 3.2 | 2.8 | 3.0 | 4.0 | 3.2 | 41\% | -20\% | -23\% | 14\% | 13\% |
| 41. (-4) | Brazil | Rio de Janeiro | 3.0 | 2.9 | 2.9 | 3.9 | 3.2 | 41\% | -19\% | -23\% | 10\% | 9\% |
| 42. (+4) | Portugal | Lisbon | 2.9 | 2.7 | 2.5 | 2.0 | 2.8 | 36\% | 40\% | 34\% | 6\% | 5\% |
| 43. $(+1)$ | Poland | Warsaw | 2.9 | 2.4 | 2.4 | 2.3 | 2.6 | 34\% | 14\% | 9\% | 10\% | 9\% |
| 44. (+1) | South Africa | Cape Town | 1.7 | 1.8 | 1.8 | 2.1 | 2.6 | 33\% | 20\% | 15\% | 45\% | 44\% |
| 45. $(-3)$ | Mexico | Mexico City | 3.1 | 2.6 | 2.6 | 2.7 | 2.4 | 31\% | -9\% | -13\% | -8\% | -9\% |
| 46. (+1) | South Africa | Johannesburg | 1.8 | 1.8 | 1.8 | 1.7 | 2.2 | 29\% | 28\% | 23\% | 23\% | 22\% |
| 47. (+1) | Czech Republic | Prague | 1.6 | 1.2 | 1.3 | 1.3 | 1.6 | 21\% | 24\% | 19\% | 36\% | 34\% |
| 48. $(-5)$ | Philippines | Manila | 1.4 | 1.9 | 1.8 | 2.3 | 1.5 | 19\% | -36\% | -39\% | -23\% | -24\% |
| Source: wm | w.expatisan.com |  |  |  |  |  |  |  |  |  |  |  |

Figure 14: 1 Pair of Sport Shoes (Nike, Adidas or Equivalent Brands)

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3 -yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (+2) | Norway | Oslo | 146.3 | 137.2 | 135.4 | 122.8 | 141.3 | 152\% | 15\% | 10\% | 3\% | -5\% |
| 02. (-1) | Denmark | Copenhagen | 145.3 | 123.6 | 130.1 | 131.3 | 140.5 | 151\% | 7\% | 2\% | 14\% | 5\% |
| 03. (+7) | France | Paris | 112.3 | 104.3 | 112.7 | 107.9 | 130.4 | 140\% | 21\% | 16\% | 25\% | 15\% |
| 04. (-2) | Switzerland | Zurich | 149.8 | 141.6 | 145.9 | 127.6 | 122.1 | 131\% | -4\% | -8\% | -14\% | -20\% |
| 05. (+36) | Belgium | Brussels | 116.5 | 99.2 | 97.0 | 78.0 | 121.8 | 131\% | 56\% | 50\% | 23\% | 13\% |
| 06. (-) | Netherlands | Amsterdam | 122.2 | 97.3 | 106.7 | 113.1 | 120.6 | 130\% | 7\% | 2\% | 24\% | 14\% |
| 07. $(+5)$ | China | Shanghai | 112.9 | 129.8 | 115.7 | 104.6 | 120.1 | 129\% | 15\% | 10\% | -7\% | -15\% |
| 08. $(+18)$ | Austria | Vienna | 115.9 | 125.7 | 113.6 | 93.9 | 119.4 | 128\% | 27\% | 22\% | -5\% | -12\% |
| 09. (+8) | New Zealand | Wellington | 151.3 | 128.0 | 105.9 | 100.9 | 119.4 | 128\% | 18\% | 13\% | -7\% | -14\% |
| 10. $(+10)$ | Italy | Milan | 119.4 | 102.5 | 109.2 | 98.6 | 118.2 | 127\% | 20\% | 15\% | 15\% | 6\% |
| 11. (-) | Australia | Sydney | 139.0 | 107.0 | 106.8 | 107.8 | 116.5 | 125\% | 8\% | 3\% | 9\% | 0\% |
| 12. $(+4)$ | New Zealand | Auckland | 129.0 | 100.9 | 108.0 | 101.9 | 115.2 | 124\% | 13\% | 8\% | 14\% | 5\% |
| 13. (+16) | Germany | Frankfurt | 117.1 | 83.0 | 91.9 | 88.3 | 114.5 | 123\% | 30\% | 24\% | 38\% | 27\% |
| 14. $(-5)$ | Sweden | Stockholm | 135.3 | 109.4 | 115.2 | 109.8 | 113.9 | 122\% | 4\% | -1\% | 4\% | -4\% |
| 15. (-11) | Finland | Helsinki | 124.6 | 101.6 | 108.9 | 118.2 | 112.1 | 121\% | -5\% | -9\% | 10\% | 2\% |
| 15. $(+7)$ | Greece | Athens | 99.6 | 83.1 | 98.3 | 97.1 | 112.1 | 121\% | 15\% | 11\% | 35\% | 24\% |
| 17. (-2) | Ireland | Dublin | 101.5 | 99.8 | 98.3 | 103.5 | 110.9 | 119\% | 7\% | 3\% | 11\% | 2\% |
| 17. $(+8)$ | Portugal | Lisbon | 106.2 | 89.0 | 83.4 | 95.0 | 110.9 | 119\% | 17\% | 12\% | 25\% | 15\% |
| 19. (-12) | Australia | Melbourne | 113.8 | 115.7 | 106.0 | 112.9 | 108.9 | 117\% | -4\% | -8\% | -6\% | -13\% |
| 20. $(-1)$ | Singapore | Singapore | 102.7 | 107.1 | 94.9 | 99.9 | 105.4 | 113\% | 5\% | 1\% | -2\% | -9\% |
| 21. $(+17)$ | United Kingdom | Edinburgh | 107.6 | 89.4 | 78.5 | 80.3 | 104.5 | 112\% | 30\% | 25\% | 17\% | 8\% |
| 22. (+2) | Germany | Berlin | 119.4 | 105.5 | 92.6 | 95.3 | 103.6 | 111\% | 9\% | 4\% | -2\% | -9\% |
| 23. $(+9)$ | South Africa | Johannesburg | 76.4 | 72.1 | 74.0 | 85.6 | 101.9 | 110\% | 19\% | 14\% | 41\% | 30\% |
| 24. (-6) | United Kingdom | London | 107.0 | 96.1 | 99.3 | 100.4 | 101.8 | 109\% | 1\% | -3\% | 6\% | -2\% |
| 25. (-11) | United States | San Francisco | 80.6 | 85.4 | 89.9 | 103.5 | 100.0 | 108\% | -3\% | -8\% | 17\% | 8\% |
| 26. (-21) | Brazil | Sao Paulo | 132.9 | 106.0 | 94.1 | 113.6 | 98.4 | 106\% | -13\% | -17\% | -7\% | -14\% |
| 27. (-6) | United Arab Emirates | Dubai | 84.4 | 111.6 | 97.5 | 97.7 | 96.7 | 104\% | -1\% | -5\% | -13\% | -20\% |
| 28. $(+9)$ | South Africa | Cape Town | 65.2 | 76.8 | 76.6 | 81.8 | 95.6 | 103\% | 17\% | 12\% | 25\% | 15\% |
| 29. (-21) | Brazil | Rio de Janeiro | 142.0 | 121.8 | 98.5 | 109.9 | 95.0 | 102\% | -14\% | -17\% | -22\% | -28\% |
| 30. $(-3)$ | Canada | Vancouver | 101.5 | 94.5 | 88.3 | 91.9 | 94.8 | 102\% | 3\% | -1\% | 0\% | -7\% |
| 31. (-3) | United States | New York City | 88.3 | 85.7 | 94.0 | 89.0 | 93.0 | 100\% | 4\% | 0\% | 8\% | 0\% |
| 32. $(+1)$ | Spain | Madrid | 110.6 | 76.8 | 93.1 | 85.2 | 92.6 | 100\% | 9\% | 4\% | 21\% | 11\% |
| 33. (-20) | Russia | Moscow | 115.7 | 90.8 | 77.8 | 104.4 | 92.4 | 99\% | -11\% | -15\% | 2\% | -6\% |
| 34. (-3) | United States | Boston | 82.0 | 87.4 | 85.7 | 86.9 | 92.0 | 99\% | 6\% | 1\% | 5\% | -3\% |
| 35. $(+1)$ | United States | Chicago | 85.9 | 92.5 | 102.0 | 83.0 | 91.0 | 98\% | 10\% | 5\% | -2\% | -9\% |
| 36. (-2) | Czech Republic | Prague | 76.1 | 75.9 | 85.8 | 84.5 | 90.4 | 97\% | 7\% | 2\% | 19\% | 10\% |
| 37. (+3) | Mexico | Mexico City | 85.7 | 73.8 | 71.0 | 78.9 | 90.3 | 97\% | 14\% | 10\% | 22\% | 13\% |
| 38. $(-3)$ | Canada | Toronto | 91.7 | 95.4 | 86.4 | 84.4 | 90.1 | 97\% | 7\% | 2\% | -6\% | -13\% |
| 39. (-) | Japan | Tokyo | 81.4 | 62.8 | 94.4 | 79.2 | 87.2 | 94\% | 10\% | 5\% | 39\% | 28\% |
| 40. (-17) | Hong Kong | Hong Kong | 92.6 | 94.3 | 89.3 | 96.4 | 84.5 | 91\% | -12\% | -16\% | -10\% | -17\% |
| 41. (+3) | Poland | Warsaw | 94.0 | 73.7 | 77.2 | 73.8 | 81.8 | 88\% | 11\% | 6\% | 11\% | 2\% |
| 42. $(+3)$ | Indonesia | Jakarta | 57.1 | 69.0 | 74.4 | 69.1 | 78.5 | 84\% | 14\% | 9\% | 14\% | 5\% |
| 43. (-13) | Philippines | Manila | 95.8 | 85.5 | 88.7 | 88.0 | 78.5 | 84\% | -11\% | -15\% | -8\% | -15\% |
| 44. (-2) | Malaysia | Kuala Lumpur | 92.8 | 77.8 | 75.6 | 75.5 | 74.1 | 80\% | -2\% | -6\% | -5\% | -12\% |
| 45. (-2) | Turkey | Istanbul | 64.8 | 66.4 | 75.5 | 74.2 | 72.6 | 78\% | -2\% | -6\% | 9\% | 1\% |
| 46. (+2) | India | Mumbai | 59.5 | 50.8 | 61.8 | 57.3 | 60.3 | 65\% | 5\% | 1\% | 19\% | 9\% |
| 47. (-1) | India | New Delhi | 56.4 | 64.8 | 60.8 | 64.8 | 58.1 | 63\% | -10\% | -14\% | -10\% | -17\% |
| 48. (-1) | India | Bangalore | 57.0 | 54.5 | 53.2 | 63.0 | 55.7 | 60\% | -12\% | -15\% | 2\% | -6\% |
| Source: wwn | v.expatisan.com |  |  |  |  |  |  |  |  |  |  |  |

Figure 15: 1 Pair of Levis Jeans (Levis 501 or similar)

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | $3-y r$ Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (+1) | Norway | Oslo | 149.3 | 121.4 | 111.7 | 114.1 | 136.4 | 253\% | 20\% | 20\% | -24\% | -19\% |
| 02. $(+6)$ | Belgium | Brussels | 129.3 | 97.4 | 96.0 | 99.3 | 123.1 | 228\% | 24\% | 25\% | -23\% | -19\% |
| 03. (+1) | Switzerland | Zurich | 144.3 | 143.6 | 123.2 | 113.3 | 121.1 | 224\% | 7\% | 7\% | -21\% | -17\% |
| 04. (+25) | Austria | Vienna | 112.3 | 96.7 | 100.3 | 73.9 | 119.4 | 221\% | 62\% | 62\% | -34\% | -30\% |
| 05. (-4) | Denmark | Copenhagen | 138.3 | 105.4 | 118.7 | 120.6 | 113.7 | 211\% | -6\% | -5\% | 8\% | 14\% |
| 06. (+1) | France | Paris | 130.1 | 114.2 | 104.5 | 103.8 | 112.1 | 208\% | 8\% | 9\% | -20\% | -16\% |
| 07. (+4) | Germany | Frankfurt | 126.9 | 95.9 | 101.5 | 95.2 | 110.9 | 205\% | 16\% | 17\% | -25\% | -21\% |
| 07. (+6) | Italy | Milan | 125.0 | 93.6 | 100.2 | 90.8 | 110.9 | 205\% | 22\% | 23\% | -27\% | -23\% |
| 09. (+7) | China | Shanghai | 98.9 | 112.8 | 116.3 | 88.7 | 110.6 | 205\% | 25\% | 25\% | -10\% | -5\% |
| 10. (-5) | Sweden | Stockholm | 146.2 | 89.3 | 104.4 | 110.5 | 108.5 | 201\% | -2\% | -1\% | -24\% | -20\% |
| 11. (-2) | Finland | Helsinki | 123.6 | 99.8 | 89.9 | 99.2 | 107.2 | 199\% | 8\% | 9\% | -20\% | -15\% |
| 12. (-) | Ireland | Dublin | 122.2 | 98.5 | 101.7 | 94.0 | 103.6 | 192\% | 10\% | 11\% | -23\% | -19\% |
| 13. $(+1)$ | Czech Republic | Prague | 97.9 | 68.6 | 76.2 | 90.7 | 100.7 | 186\% | 11\% | 12\% | -7\% | -2\% |
| 14. $(-8)$ | Netherlands | Amsterdam | 137.4 | 96.9 | 108.0 | 106.2 | 99.9 | 185\% | -6\% | -5\% | -23\% | -18\% |
| 14. (-4) | Germany | Berlin | 116.7 | 94.3 | 88.5 | 99.0 | 99.9 | 185\% | 1\% | 1\% | -15\% | -10\% |
| 14. $(+9)$ | Greece | Athens | 113.8 | 87.6 | 89.0 | 81.9 | 99.9 | 185\% | 22\% | 23\% | -28\% | -24\% |
| 17. (+2) | United Kingdom | London | 108.7 | 96.1 | 99.3 | 87.5 | 99.0 | 183\% | 13\% | 14\% | -19\% | -15\% |
| 18. $(-3)$ | Portugal | Lisbon | 111.2 | 87.0 | 92.9 | 89.4 | 96.3 | 178\% | 8\% | 8\% | -20\% | -15\% |
| 19. $(+3)$ | United Kingdom | Edinburgh | 103.9 | 90.5 | 91.2 | 82.7 | 87.8 | 163\% | 6\% | 7\% | -20\% | -16\% |
| 20. $(-3)$ | Spain | Madrid | 124.6 | 85.7 | 75.7 | 88.3 | 86.5 | 160\% | -2\% | -2\% | -29\% | -25\% |
| 21. $(+7)$ | Australia | Sydney | 100.7 | 84.9 | 82.5 | 74.0 | 84.7 | 157\% | 14\% | 15\% | -27\% | -22\% |
| 22. (-19) | Russia | Moscow | 130.9 | 84.6 | 79.2 | 113.6 | 84.2 | 156\% | -26\% | -25\% | -13\% | -8\% |
| 23. $(+1)$ | Australia | Melbourne | 93.6 | 81.6 | 81.9 | 80.8 | 83.2 | 154\% | 3\% | 4\% | -14\% | -9\% |
| 24. (-6) | Singapore | Singapore | 95.8 | 106.7 | 82.3 | 87.9 | 79.8 | 148\% | -9\% | -9\% | -8\% | -3\% |
| 25. (-4) | United Arab Emirates | Dubai | 103.7 | 108.1 | 98.8 | 85.5 | 79.5 | 147\% | -7\% | -7\% | -18\% | -13\% |
| 26. $(+1)$ | Poland | Warsaw | 109.7 | 69.6 | 74.9 | 75.1 | 77.8 | 144\% | 4\% | 4\% | -32\% | -28\% |
| 27. (-1) | Hong Kong | Hong Kong | 83.2 | 91.7 | 86.8 | 75.7 | 76.6 | 142\% | 1\% | 2\% | -9\% | -4\% |
| 28. $(+2)$ | New Zealand | Auckland | 114.8 | 98.8 | 82.1 | 72.6 | 74.2 | 137\% | 2\% | 3\% | -37\% | -33\% |
| 29. $(+3)$ | Brazil | Rio de Janeiro | 99.2 | 73.3 | 58.3 | 69.2 | 70.9 | 131\% | 2\% | 3\% | -30\% | -26\% |
| 30. (-10) | New Zealand | Wellington | 110.9 | 87.8 | 92.8 | 86.9 | 69.2 | 128\% | -20\% | -20\% | -22\% | -17\% |
| 31. $(+5)$ | Malaysia | Kuala Lumpur | 72.7 | 69.5 | 62.2 | 58.4 | 68.5 | 127\% | 17\% | 18\% | -20\% | -15\% |
| 32. $(-7)$ | Japan | Tokyo | 73.7 | 55.5 | 89.8 | 80.5 | 67.2 | 124\% | -17\% | -16\% | 9\% | 16\% |
| 33. $(+1)$ | South Africa | Cape Town | 62.6 | 51.5 | 55.3 | 60.2 | 65.4 | 121\% | 9\% | 9\% | -4\% | 2\% |
| 34. $(-3)$ | Brazil | Sao Paulo | 115.7 | 75.6 | 60.2 | 71.1 | 64.3 | 119\% | -10\% | -9\% | -39\% | -35\% |
| 35. $(-2)$ | United States | San Francisco | 58.0 | 63.2 | 51.2 | 60.8 | 63.0 | 117\% | 4\% | 4\% | 5\% | 11\% |
| 36. (+1) | Canada | Vancouver | 58.9 | 61.6 | 52.8 | 55.1 | 62.9 | 117\% | 14\% | 15\% | -6\% | -1\% |
| 37. $(-2)$ | South Africa | Johannesburg | 75.4 | 58.0 | 51.3 | 59.2 | 60.6 | 112\% | 2\% | 3\% | -22\% | -17\% |
| 38. $(+1)$ | Canada | Toronto | 54.7 | 44.0 | 47.3 | 51.1 | 58.3 | 108\% | 14\% | 15\% | -7\% | -1\% |
| 39. (+2) | United States | Boston | 44.6 | 44.5 | 51.4 | 50.5 | 56.0 | 104\% | 11\% | 11\% | 13\% | 20\% |
| 40. $(-2)$ | United States | New York City | 57.4 | 51.8 | 55.0 | 54.3 | 54.0 | 100\% | -1\% | 0\% | -5\% | 0\% |
| 41. (+1) | United States | Chicago | 54.5 | 43.5 | 59.5 | 49.0 | 51.0 | 94\% | 4\% | 5\% | -10\% | -5\% |
| 42. $(-2)$ | Turkey | Istanbul | 68.6 | 52.6 | 54.0 | 50.7 | 46.3 | 86\% | -9\% | -8\% | -26\% | -22\% |
| 43. (-) | Mexico | Mexico City | 57.2 | 45.5 | 44.8 | 48.5 | 43.4 | 80\% | -11\% | -10\% | -15\% | -10\% |
| 44. (+1) | Indonesia | Jakarta | 48.2 | 54.0 | 46.0 | 44.6 | 41.0 | 76\% | -8\% | -8\% | -8\% | -2\% |
| 45. $(+3)$ | India | Mumbai | 35.0 | 34.8 | 37.7 | 39.6 | 39.9 | 74\% | 1\% | 1\% | 13\% | 20\% |
| 46. $(-2)$ | Philippines | Manila | 62.9 | 67.5 | 54.8 | 47.7 | 39.8 | 74\% | -17\% | -16\% | -24\% | -20\% |
| 47. (-) | India | New Delhi | 46.6 | 40.2 | 40.8 | 39.8 | 37.7 | 70\% | -5\% | -5\% | -15\% | -10\% |
| 48. $(-2)$ | India | Bangalore | 41.5 | 42.0 | 31.8 | 41.3 | 37.6 | 70\% | -9\% | -9\% | 0\% | 5\% |

Source: www.expatisan.com

Figure 16: Monthly Ticket Public Transport

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change <br> (\%) Rel. To <br> NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | United Kingdom | London | 213.6 | 196.2 | 186.9 | 174.0 | 196.5 | 162\% | 13\% | 10\% | 0\% | -7\% |
| 02. (-) | Ireland | Dublin | 146.9 | 130.5 | 129.9 | 131.6 | 143.8 | 119\% | 9\% | 6\% | 10\% | 2\% |
| 03. (-) | New Zealand | Auckland | 130.5 | 100.7 | 106.8 | 122.9 | 137.1 | 113\% | 12\% | 8\% | 36\% | 26\% |
| 04. (+3) | Australia | Sydney | 143.6 | 98.5 | 103.0 | 108.4 | 127.1 | 105\% | 17\% | 14\% | 29\% | 19\% |
| 05. (-1) | United States | New York City | 112.9 | 112.1 | 117.4 | 117.7 | 121.0 | 100\% | 3\% | 0\% | 8\% | 0\% |
| 06. (+4) | Canada | Toronto | 115.7 | 108.2 | 109.4 | 102.7 | 113.5 | 94\% | 10\% | 7\% | 5\% | -3\% |
| 07. (+2) | Australia | Melbourne | 114.6 | 110.1 | 107.3 | 105.5 | 110.4 | 91\% | 5\% | 2\% | 0\% | -7\% |
| 08. (-2) | Netherlands | Amsterdam | 119.3 | 97.3 | 99.6 | 108.6 | 108.4 | 90\% | 0\% | -3\% | 11\% | 3\% |
| 09. (+5) | Germany | Frankfurt | 108.3 | 90.3 | 100.5 | 88.5 | 106.0 | 88\% | 20\% | 16\% | 17\% | 9\% |
| 10. (+2) | New Zealand | Wellington | 114.1 | 88.6 | 92.7 | 101.2 | 102.5 | 85\% | 1\% | -2\% | 16\% | 7\% |
| 11. (-) | United States | Chicago | 93.2 | 107.5 | 103.0 | 102.1 | 101.0 | 83\% | -1\% | -4\% | -6\% | -13\% |
| 12. (+1) | Sweden | Stockholm | 118.2 | 91.6 | 98.3 | 90.7 | 98.5 | 81\% | 9\% | 6\% | 7\% | 0\% |
| 13. (+2) | Germany | Berlin | 103.8 | 84.7 | 88.2 | 87.2 | 97.5 | 81\% | 12\% | 9\% | 15\% | 7\% |
| 14. (-6) | Switzerland | Zurich | 89.7 | 93.2 | 95.6 | 106.2 | 94.7 | 78\% | -11\% | -13\% | 2\% | -6\% |
| 15. (+3) | Norway | Oslo | 111.0 | 89.7 | 84.7 | 82.2 | 89.4 | 74\% | 9\% | 6\% | 0\% | -8\% |
| 16. (+4) | France | Paris | 89.8 | 73.2 | 78.2 | 77.9 | 88.9 | 74\% | 14\% | 11\% | 22\% | 13\% |
| 17. (-) | United States | Boston | 71.9 | 76.4 | 76.1 | 83.9 | 85.0 | 70\% | 1\% | -1\% | 11\% | 3\% |
| 18. (+1) | Canada | Vancouver | 85.2 | 85.4 | 80.4 | 78.7 | 83.1 | 69\% | 6\% | 3\% | -3\% | -10\% |
| 19. (+2) | Denmark | Copenhagen | 85.7 | 63.3 | 74.1 | 77.6 | 82.8 | 68\% | 7\% | 4\% | 31\% | 21\% |
| 20. (-4) | United States | San Francisco | 69.3 | 76.2 | 88.2 | 86.1 | 81.0 | 67\% | -6\% | -8\% | 6\% | -2\% |
| 21. (+1) | United Kingdom | Edinburgh | 87.4 | 77.7 | 74.1 | 70.6 | 79.5 | 66\% | 13\% | 9\% | 2\% | -5\% |
| 22. $(+1)$ | United Arab Emirates | Dubai | 57.7 | 67.8 | 73.8 | 67.8 | 77.6 | 64\% | 14\% | 11\% | 14\% | 6\% |
| 23. $(-18)$ | Japan | Tokyo | 96.3 | 95.0 | 105.6 | 110.7 | 71.2 | 59\% | -36\% | -37\% | -25\% | -31\% |
| 24. (+1) | Singapore | Singapore | 73.9 | 78.8 | 63.4 | 63.9 | 70.0 | 58\% | 10\% | 7\% | -11\% | -18\% |
| 25. $(-1)$ | Hong Kong | Hong Kong | 65.8 | 72.4 | 72.4 | 65.6 | 66.6 | 55\% | 2\% | -1\% | -8\% | -15\% |
| 26. $(+3)$ | Spain | Madrid | 77.1 | 61.0 | 61.5 | 57.7 | 65.8 | 54\% | 14\% | 11\% | 8\% | 0\% |
| 27. (+1) | South Africa | Johannesburg | 101.5 | 68.4 | 74.0 | 61.5 | 65.7 | 54\% | 7\% | 4\% | -4\% | -11\% |
| 28. (+2) | Finland | Helsinki | 62.7 | 51.0 | 58.0 | 56.9 | 64.6 | 53\% | 13\% | 10\% | 27\% | 17\% |
| 29. (+2) | Belgium | Brussels | 69.7 | 52.4 | 58.7 | 54.9 | 60.9 | 50\% | 11\% | 8\% | 16\% | 8\% |
| 30. (-3) | Brazil | Sao Paulo | 70.8 | 63.2 | 50.5 | 61.7 | 58.5 | 48\% | -5\% | -8\% | -7\% | -14\% |
| 31. (+1) | Austria | Vienna | 66.5 | 49.8 | 53.2 | 50.2 | 56.0 | 46\% | 12\% | 9\% | 13\% | 4\% |
| 32. (-6) | Brazil | Rio de Janeiro | 70.3 | 61.2 | 49.8 | 62.5 | 56.0 | 46\% | -10\% | -13\% | -9\% | -15\% |
| 33. (+1) | Portugal | Lisbon | 50.8 | 40.4 | 45.7 | 43.2 | 46.3 | 38\% | 7\% | 4\% | 15\% | 6\% |
| 34. (-1) | Turkey | Istanbul | 67.5 | 59.2 | 57.7 | 48.9 | 45.8 | 38\% | -6\% | -9\% | -23\% | -28\% |
| 35. (-) | Italy | Milan | 44.5 | 37.3 | 38.0 | 36.9 | 42.6 | 35\% | 16\% | 12\% | 14\% | 6\% |
| 36. (+3) | Malaysia | Kuala Lumpur | 27.6 | 31.2 | 28.4 | 32.0 | 38.3 | 32\% | 20\% | 16\% | 23\% | 14\% |
| 37. (-) | Greece | Athens | 62.4 | 36.4 | 34.9 | 33.5 | 37.8 | 31\% | 13\% | 10\% | 4\% | -4\% |
| 38. (-) | Philippines | Manila | 23.7 | 27.0 | 31.1 | 32.2 | 34.0 | 28\% | 5\% | 2\% | 26\% | 17\% |
| 39. (+1) | China | Shanghai | 23.0 | 34.7 | 36.4 | 30.7 | 33.2 | 27\% | 8\% | 5\% | -4\% | -12\% |
| 40. (-4) | Russia | Moscow | 42.2 | 38.0 | 27.0 | 34.8 | 32.1 | 27\% | -8\% | -10\% | -15\% | -22\% |
| 41. (+1) | South Africa | Cape Town | 20.6 | 33.9 | 20.6 | 28.7 | 31.2 | 26\% | 9\% | 6\% | -8\% | -15\% |
| 42. $(-1)$ | Poland | Warsaw | 34.5 | 29.7 | 28.0 | 28.9 | 31.1 | 26\% | 8\% | 5\% | 5\% | -3\% |
| 43. $(+3)$ | Czech Republic | Prague | 28.3 | 22.0 | 22.8 | 21.7 | 26.7 | 22\% | 23\% | 20\% | 22\% | 13\% |
| 44. $(-1)$ | India | Bangalore | 24.0 | 24.5 | 27.2 | 27.7 | 25.2 | 21\% | -9\% | -12\% | 3\% | -5\% |
| 45. $(-1)$ | Mexico | Mexico City | 20.0 | 24.7 | 19.7 | 23.1 | 23.0 | 19\% | 0\% | -3\% | -7\% | -14\% |
| 46. (+1) | India | New Delhi | 12.7 | 17.8 | 17.6 | 20.6 | 20.8 | 17\% | 1\% | -1\% | 17\% | 9\% |
| 47. $(-2)$ | Indonesia | Jakarta | 31.0 | 13.9 | 25.4 | 22.8 | 19.4 | 16\% | -15\% | -17\% | 39\% | 29\% |
| 48. (-) | India | Mumbai | 11.8 | 12.0 | 18.1 | 14.6 | 15.8 | 13\% | 9\% | 6\% | 31\% | 22\% |

Figure 17: New Mid-Size Car (Equivalent to Volkswagen Golf), no Extras

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change <br> (\%) Rel. To <br> NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Singapore | Singapore | 126,792 | 116,394 | 99,185 | 90,486 | 86,412 | 375\% | -5\% | -1\% | -26\% | -24\% |
| 02. (-) | Denmark | Copenhagen | 57,097 | 45,333 | 50,632 | 48,064 | 44,062 | 191\% | -8\% | -5\% | -3\% | -1\% |
| 03. (-) | Norway | Oslo | 55,279 | 36,526 | 40,412 | 36,431 | 42,239 | 183\% | 16\% | 20\% | 16\% | 18\% |
| 04. (-) | Malaysia | Kuala Lumpur | 55,889 | 52,341 | 37,077 | 36,279 | 37,057 | 161\% | 2\% | 6\% | -29\% | -28\% |
| 05. (+2) | Finland | Helsinki | 39,967 | 32,411 | 30,924 | 31,400 | 35,168 | 152\% | 12\% | 16\% | 9\% | 10\% |
| 06. (+6) | Netherlands | Amsterdam | 37,169 | 29,942 | 33,352 | 28,708 | 31,634 | 137\% | 10\% | 14\% | 6\% | 8\% |
| 07. (-1) | Portugal | Lisbon | 40,462 | 30,146 | 32,709 | 33,601 | 31,625 | 137\% | -6\% | -2\% | 5\% | 7\% |
| 08. $(+2)$ | Ireland | Dublin | 33,098 | 28,448 | 29,651 | 29,318 | 30,290 | 131\% | 3\% | 7\% | 6\% | 8\% |
| 09. (-4) | Indonesia | Jakarta | 33,958 | 28,723 | 32,377 | 36,223 | 29,796 | 129\% | -18\% | -15\% | 4\% | 6\% |
| 10. (+9) | France | Paris | 35,216 | 25,798 | 30,604 | 26,611 | 29,520 | 128\% | 11\% | 15\% | 14\% | 17\% |
| 11. (+9) | Belgium | Brussels | 30,241 | 22,978 | 24,611 | 26,236 | 27,959 | 121\% | 7\% | 10\% | 22\% | 24\% |
| 12. (+15) | Austria | Vienna | 29,129 | 23,974 | 27,960 | 23,790 | 27,902 | 121\% | 17\% | 22\% | 16\% | 19\% |
| 13. $(-5)$ | Hong Kong | Hong Kong | 35,101 | 30,882 | 34,372 | 30,840 | 27,624 | 120\% | -10\% | -7\% | -11\% | -9\% |
| 14. (-5) | Switzerland | Zurich | 39,784 | 28,219 | 31,037 | 30,519 | 26,602 | 115\% | -13\% | -10\% | -6\% | -4\% |
| 15. (+18) | United States | Chicago | 22,378 | 21,813 | 27,450 | 22,887 | 26,353 | 114\% | 15\% | 19\% | 21\% | 23\% |
| 16. $(-1)$ | Turkey | Istanbul | 32,285 | 34,147 | 30,876 | 26,938 | 26,245 | 114\% | -3\% | 1\% | -23\% | -22\% |
| 17. $(+15)$ | Spain | Madrid | 31,212 | 23,396 | 24,232 | 23,088 | 26,156 | 113\% | 13\% | 17\% | 12\% | 14\% |
| 18. (-5) | Brazil | Rio de Janeiro | 22,163 | 20,653 | 21,672 | 27,733 | 25,182 | 109\% | -9\% | -6\% | 22\% | 24\% |
| 19. (+2) | Italy | Milan | 31,573 | 23,400 | 26,450 | 26,080 | 25,153 | 109\% | -4\% | 0\% | 7\% | 9\% |
| 20. $(+5)$ | United Kingdom | Edinburgh | 28,541 | 22,840 | 23,707 | 24,197 | 24,723 | 107\% | 2\% | 6\% | 8\% | 10\% |
| 21. (+9) | Japan | Tokyo | 24,375 | 22,884 | 28,250 | 23,413 | 24,630 | 107\% | 5\% | 9\% | 8\% | 10\% |
| 22. (-6) | Brazil | Sao Paulo | 30,903 | 24,781 | 22,528 | 26,901 | 24,521 | 106\% | -9\% | -6\% | -1\% | 1\% |
| 23. (-6) | Greece | Athens | 33,884 | 22,633 | 26,183 | 26,771 | 24,148 | 105\% | -10\% | -7\% | 7\% | 9\% |
| 24. (-) | United Kingdom | London | 37,794 | 27,826 | 27,268 | 24,340 | 24,072 | 104\% | -1\% | 2\% | -13\% | -12\% |
| 25. (-11) | Sweden | Stockholm | 34,044 | 25,723 | 31,218 | 27,094 | 23,829 | 103\% | -12\% | -9\% | -7\% | -6\% |
| 26. $(+3)$ | Germany | Berlin | 32,072 | 27,786 | 24,917 | 23,657 | 23,827 | 103\% | 1\% | 4\% | -14\% | -13\% |
| 27. (+16) | Germany | Frankfurt | 33,469 | 21,353 | 20,948 | 19,622 | 23,481 | 102\% | 20\% | 24\% | 10\% | 12\% |
| 28. (-6) | New Zealand | Auckland | 32,934 | 30,154 | 26,832 | 24,960 | 23,444 | 102\% | -6\% | -3\% | -22\% | -21\% |
| 29. (-11) | New Zealand | Wellington | 31,166 | 25,963 | 28,589 | 26,638 | 23,304 | 101\% | -13\% | -9\% | -10\% | -9\% |
| 30. (-4) | United States | New York City | 23,113 | 23,487 | 26,652 | 23,901 | 23,065 | 100\% | -3\% | 0\% | -2\% | 0\% |
| 31. (+7) | United States | Boston | 22,291 | 22,077 | 23,225 | 21,511 | 22,734 | 99\% | 6\% | 10\% | 3\% | 5\% |
| 32. (-21) | Philippines | Manila | 32,988 | 31,618 | 32,366 | 29,177 | 22,630 | 98\% | -22\% | -20\% | -28\% | -27\% |
| 33. $(+8)$ | Poland | Warsaw | 27,705 | 23,053 | 19,933 | 20,587 | 22,430 | 97\% | 9\% | 13\% | -3\% | -1\% |
| 34. (+8) | Czech Republic | Prague | 23,919 | 19,974 | 21,944 | 20,403 | 22,400 | 97\% | 10\% | 14\% | 12\% | 14\% |
| 35. (-12) | South Africa | Johannesburg | 25,701 | 23,941 | 20,411 | 24,466 | 22,030 | 96\% | -10\% | -7\% | -8\% | -6\% |
| 36. $(+1)$ | United States | San Francisco | 26,700 | 29,576 | 22,740 | 22,265 | 21,968 | 95\% | -1\% | 2\% | -26\% | -24\% |
| 37. (-1) | United Arab Emirates | Dubai | 22,897 | 25,206 | 22,890 | 22,409 | 21,854 | 95\% | -2\% | 1\% | -13\% | -12\% |
| 38. $(-10)$ | South Africa | Cape Town | 26,682 | 22,797 | 19,605 | 23,766 | 21,434 | 93\% | -10\% | -7\% | -6\% | -4\% |
| 39. (-4) | Australia | Sydney | 31,022 | 26,656 | 23,690 | 22,452 | 20,185 | 88\% | -10\% | -7\% | -24\% | -23\% |
| 40. (-1) | Australia | Melbourne | 30,600 | 27,205 | 20,625 | 21,481 | 20,033 | 87\% | -7\% | -3\% | -26\% | -25\% |
| 41. $(-10)$ | Russia | Moscow | 23,110 | 16,039 | 16,344 | 23,255 | 18,955 | 82\% | -18\% | -16\% | 18\% | 20\% |
| 42. $(-2)$ | Canada | Vancouver | 20,246 | 19,844 | 18,857 | 21,310 | 18,550 | 80\% | -13\% | -10\% | -7\% | -5\% |
| 43. (-9) | China | Shanghai | 33,731 | 28,764 | 35,410 | 22,765 | 18,300 | 79\% | -20\% | -17\% | -36\% | -35\% |
| 44. (-) | Canada | Toronto | 22,982 | 21,864 | 20,509 | 18,581 | 17,265 | 75\% | -7\% | -4\% | -21\% | -20\% |
| 45. (+2) | Mexico | Mexico City | 20,129 | 15,229 | 14,050 | 13,847 | 15,236 | 66\% | 10\% | 14\% | 0\% | 2\% |
| 46. $(-1)$ | India | Bangalore | 13,801 | 12,585 | 20,263 | 15,534 | 13,929 | 60\% | -10\% | -7\% | 11\% | 13\% |
| 47. (-1) | India | Mumbai | 12,631 | 11,190 | 14,846 | 14,660 | 12,482 | 54\% | -15\% | -12\% | 12\% | 14\% |
| 48. (-) | India | New Delhi | 13,889 | 12,546 | 12,367 | 12,982 | 12,066 | 52\% | -7\% | -4\% | -4\% | -2\% |
| Source: www | v.expatisan.com |  |  |  |  |  |  |  |  |  |  |  |

Figure 18: 1 Liter (1/4 Gallon) of Gas

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | $\begin{array}{r} \text { YoY } \\ \text { Change (\%) } \end{array}$ | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | $3-y r$ Cum. <br> Change (\%) <br> Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (+1) | Netherlands | Amsterdam | 2.41 | 1.86 | 1.79 | 1.70 | 1.95 | 244\% | 15\% | -2\% | 5\% | -2\% |
| 02. $(-1)$ | Hong Kong | Hong Kong | 2.29 | 2.19 | 1.98 | 1.91 | 1.91 | 239\% | 0\% | -14\% | -13\% | -19\% |
| 03. (-) | Norway | Oslo | 2.49 | 1.91 | 1.80 | 1.69 | 1.88 | 235\% | 11\% | -5\% | -1\% | -8\% |
| 04. (-) | Portugal | Lisbon | 2.24 | 1.66 | 1.57 | 1.61 | 1.83 | 228\% | 14\% | -3\% | 10\% | 3\% |
| 04. (+1) | Italy | Milan | 2.42 | 1.68 | 1.71 | 1.60 | 1.83 | 228\% | 14\% | -3\% | 9\% | 2\% |
| 04. (+3) | Finland | Helsinki | 2.28 | 1.75 | 1.66 | 1.57 | 1.83 | 228\% | 16\% | -1\% | 5\% | -2\% |
| 04. (+4) | Greece | Athens | 2.33 | 1.75 | 1.60 | 1.56 | 1.83 | 228\% | 17\% | 0\% | 4\% | -3\% |
| 04. (+13) | France | Paris | 2.15 | 1.51 | 1.48 | 1.42 | 1.83 | 228\% | 28\% | 10\% | 21\% | 13\% |
| 09. (+2) | Denmark | Copenhagen | 2.19 | 1.66 | 1.60 | 1.49 | 1.80 | 225\% | 21\% | 3\% | 9\% | 1\% |
| 10. $(+3)$ | Germany | Frankfurt | 2.26 | 1.58 | 1.49 | 1.47 | 1.71 | 213\% | 16\% | -1\% | 8\% | 1\% |
| 10. $(+5)$ | Ireland | Dublin | 2.20 | 1.59 | 1.51 | 1.45 | 1.71 | 213\% | 18\% | 1\% | 7\% | 0\% |
| 12. $(-2)$ | United Kingdom | London | 2.29 | 1.90 | 1.66 | 1.49 | 1.67 | 209\% | 12\% | -4\% | -12\% | -18\% |
| 12. $(+2)$ | United Kingdom | Edinburgh | 2.66 | 1.88 | 1.55 | 1.46 | 1.67 | 209\% | 15\% | -2\% | -11\% | -17\% |
| 14. (-8) | Sweden | Stockholm | 2.19 | 1.64 | 1.65 | 1.58 | 1.64 | 205\% | 4\% | -12\% | 0\% | -7\% |
| 15. $(+1)$ | Germany | Berlin | 2.17 | 1.62 | 1.49 | 1.43 | 1.58 | 198\% | 11\% | -5\% | -2\% | -9\% |
| 15. (+4) | Belgium | Brussels | 2.11 | 1.48 | 1.49 | 1.36 | 1.58 | 198\% | 16\% | -1\% | 7\% | 0\% |
| 17. (-5) | Singapore | Singapore | 1.82 | 1.60 | 1.58 | 1.48 | 1.58 | 198\% | 7\% | -9\% | -1\% | -8\% |
| 18. (-9) | Switzerland | Zurich | 2.08 | 1.76 | 1.53 | 1.53 | 1.53 | 191\% | 0\% | -15\% | -13\% | -19\% |
| 19. $(+5)$ | Czech Republic | Prague | 1.83 | 1.39 | 1.29 | 1.22 | 1.48 | 185\% | 22\% | 4\% | 7\% | 0\% |
| 20. $(+1)$ | Spain | Madrid | 1.96 | 1.46 | 1.36 | 1.28 | 1.46 | 183\% | 14\% | -2\% | 0\% | -7\% |
| 20. $(+5)$ | Austria | Vienna | 1.91 | 1.40 | 1.39 | 1.21 | 1.46 | 183\% | 21\% | 4\% | 4\% | -3\% |
| 22. (-2) | New Zealand | Wellington | 1.89 | 1.61 | 1.37 | 1.34 | 1.41 | 177\% | 5\% | -10\% | -12\% | -18\% |
| 22. (-) | New Zealand | Auckland | 1.88 | 1.58 | 1.32 | 1.27 | 1.41 | 177\% | 11\% | -5\% | -11\% | -17\% |
| 24. (+2) | Poland | Warsaw | 1.83 | 1.41 | 1.20 | 1.20 | 1.35 | 169\% | 12\% | -4\% | -4\% | -10\% |
| 25. (-7) | Turkey | Istanbul | 2.33 | 1.78 | 1.61 | 1.39 | 1.27 | 158\% | -9\% | -22\% | -29\% | -33\% |
| 26. $(-3)$ | Brazil | Rio de Janeiro | 1.35 | 1.13 | 1.06 | 1.26 | 1.26 | 158\% | 1\% | -14\% | 11\% | 4\% |
| 27. (-) | Japan | Tokyo | 1.47 | 1.29 | 1.18 | 1.14 | 1.21 | 151\% | 6\% | -9\% | -6\% | -13\% |
| 28. (+2) | India | Mumbai | 1.29 | 1.15 | 1.09 | 1.12 | 1.15 | 144\% | 3\% | -12\% | 0\% | -7\% |
| 29. (+4) | South Africa | Johannesburg | 1.23 | 1.05 | 0.90 | 0.99 | 1.12 | 140\% | 13\% | -4\% | 7\% | 0\% |
| 29. $(+5)$ | South Africa | Cape Town | 1.24 | 1.05 | 0.87 | 0.96 | 1.12 | 140\% | 16\% | -1\% | 7\% | 0\% |
| 31. $(-3)$ | China | Shanghai | 1.45 | 1.24 | 1.00 | 1.14 | 1.11 | 138\% | -3\% | -17\% | -11\% | -17\% |
| 32. $(-1)$ | India | Bangalore | 1.30 | 1.17 | 0.98 | 1.10 | 1.11 | 138\% | 0\% | -15\% | -5\% | -11\% |
| 33. (+2) | Canada | Vancouver | 1.27 | 1.15 | 0.95 | 0.96 | 1.09 | 136\% | 14\% | -3\% | -5\% | -12\% |
| 34. (-5) | Brazil | Sao Paulo | 1.27 | 1.02 | 0.93 | 1.13 | 1.06 | 133\% | -6\% | -19\% | 4\% | -3\% |
| 35. (-3) | India | New Delhi | 1.20 | 1.10 | 0.99 | 1.05 | 1.06 | 133\% | 2\% | -13\% | -3\% | -10\% |
| 36. (-) | Australia | Sydney | 1.41 | 1.17 | 1.07 | 0.95 | 1.06 | 132\% | 12\% | -5\% | -10\% | -16\% |
| 36. (+1) | Australia | Melbourne | 1.40 | 1.12 | 0.98 | 0.93 | 1.06 | 132\% | 14\% | -3\% | -5\% | -12\% |
| 38. (+2) | Mexico | Mexico City | 1.06 | 0.87 | 0.81 | 0.81 | 0.95 | 118\% | 17\% | -1\% | 9\% | 2\% |
| 39. $(+2)$ | Canada | Toronto | 1.19 | 1.00 | 0.83 | 0.79 | 0.93 | 117\% | 17\% | 0\% | -7\% | -13\% |
| 40. $(-1)$ | United States | San Francisco | 1.04 | 1.03 | 0.91 | 0.81 | 0.90 | 113\% | 11\% | -6\% | -12\% | -18\% |
| 41. $(-3)$ | Philippines | Manila | 1.18 | 1.09 | 0.89 | 0.86 | 0.90 | 112\% | 4\% | -11\% | -17\% | -23\% |
| 42. (-) | United States | Chicago | 1.01 | 0.86 | 0.77 | 0.69 | 0.80 | 100\% | 15\% | -1\% | -7\% | -13\% |
| 42. $(+2)$ | United States | New York City | 1.07 | 0.75 | 0.70 | 0.68 | 0.80 | 100\% | 17\% | 0\% | 7\% | 0\% |
| 44. $(+1)$ | United States | Boston | 0.96 | 0.82 | 0.60 | 0.60 | 0.70 | 88\% | 17\% | 0\% | -15\% | -20\% |
| 45. (+1) | Indonesia | Jakarta | 0.79 | 0.63 | 0.64 | 0.59 | 0.67 | 84\% | 14\% | -3\% | 6\% | -1\% |
| 46. $(-3)$ | Russia | Moscow | 0.91 | 0.69 | 0.55 | 0.69 | 0.66 | 82\% | -5\% | -19\% | -5\% | -11\% |
| 47. (-) | United Arab Emirates | Dubai | 0.49 | 0.49 | 0.52 | 0.49 | 0.54 | 68\% | 11\% | -5\% | 11\% | 4\% |
| 48. (-) | Malaysia | Kuala Lumpur | 0.64 | 0.59 | 0.52 | 0.47 | 0.54 | 67\% | 15\% | -2\% | -9\% | -15\% |
| Source: www | v.expatisan.com |  |  |  |  |  |  |  |  |  |  |  |

Figure 19: Taxi Trip on a Business Day, Basic Tariff, 8km (5 miles)

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Switzerland | Zurich | 34.1 | 31.8 | 33.0 | 35.0 | 37.7 | 209\% | 8\% | -12\% | 18\% | 19\% |
| 02. (-) | Japan | Tokyo | 23.4 | 23.9 | 28.8 | 30.1 | 32.9 | 183\% | 9\% | -11\% | 37\% | 38\% |
| 03. (-) | Sweden | Stockholm | 30.8 | 23.8 | 28.8 | 27.7 | 29.0 | 161\% | 5\% | -14\% | 22\% | 22\% |
| 04. (+1) | Netherlands | Amsterdam | 29.5 | 25.4 | 26.7 | 25.4 | 28.0 | 156\% | 10\% | -10\% | 10\% | 10\% |
| 05. (+15) | United Kingdom | London | 31.6 | 22.1 | 15.3 | 17.2 | 27.9 | 155\% | 62\% | 33\% | 26\% | 26\% |
| 06. (-2) | Denmark | Copenhagen | 31.9 | 27.6 | 26.9 | 26.6 | 27.3 | 152\% | 3\% | -16\% | -1\% | -1\% |
| 07. (-) | Finland | Helsinki | 28.9 | 24.4 | 24.3 | 23.4 | 26.8 | 149\% | 15\% | -6\% | 10\% | 10\% |
| 08. (-2) | Norway | Oslo | 34.9 | 26.7 | 26.1 | 23.9 | 24.7 | 137\% | 4\% | -15\% | -7\% | -7\% |
| 09. (-) | Belgium | Brussels | 24.9 | 20.8 | 23.4 | 22.2 | 24.4 | 135\% | 10\% | -10\% | 17\% | 17\% |
| 10. $(+3)$ | United Kingdom | Edinburgh | 28.3 | 24.6 | 21.3 | 19.8 | 23.7 | 132\% | 20\% | -2\% | -4\% | -4\% |
| 11. (-1) | Germany | Berlin | 31.0 | 24.4 | 20.8 | 21.5 | 23.2 | 129\% | 8\% | -12\% | -5\% | -5\% |
| 11. (+6) | Italy | Milan | 22.0 | 20.3 | 18.9 | 18.6 | 23.2 | 129\% | 24\% | 2\% | 14\% | 14\% |
| 11. (+8) | Germany | Frankfurt | 24.7 | 19.8 | 18.4 | 17.6 | 23.2 | 129\% | 32\% | 8\% | 17\% | 17\% |
| 14. (-6) | New Zealand | Auckland | 21.8 | 19.6 | 18.2 | 23.1 | 21.2 | 118\% | -8\% | -25\% | 8\% | 8\% |
| 15. (+1) | United States | San Francisco | 21.2 | 26.6 | 21.1 | 18.7 | 21.0 | 117\% | 12\% | -8\% | -21\% | -21\% |
| 16. $(-1)$ | Ireland | Dublin | 20.9 | 15.9 | 17.5 | 19.8 | 20.7 | 115\% | 5\% | -14\% | 30\% | 30\% |
| 16. $(+6)$ | Austria | Vienna | 25.8 | 16.7 | 17.6 | 16.3 | 20.7 | 115\% | 27\% | 4\% | 24\% | 24\% |
| 16. $(+13)$ | France | Paris | 23.3 | 17.8 | 17.8 | 14.5 | 20.7 | 115\% | 43\% | 17\% | 16\% | 16\% |
| 19. $(-7)$ | New Zealand | Wellington | 29.2 | 25.2 | 20.5 | 20.0 | 20.5 | 114\% | 3\% | -16\% | -19\% | -19\% |
| 20. (-9) | United States | Chicago | 17.8 | 21.6 | 22.2 | 20.4 | 20.0 | 111\% | -2\% | -20\% | -7\% | -7\% |
| 21. $(+7)$ | United States | New York City | 20.3 | 18.0 | 15.4 | 14.7 | 18.0 | 100\% | 22\% | 0\% | 0\% | 0\% |
| 22. $(-8)$ | Australia | Sydney | 23.2 | 20.9 | 17.7 | 19.8 | 17.4 | 97\% | -12\% | -28\% | -17\% | -17\% |
| 23. (-) | Canada | Toronto | 21.2 | 17.1 | 13.7 | 16.2 | 17.1 | 95\% | 5\% | -14\% | 0\% | 0\% |
| 24. (+2) | Australia | Melbourne | 17.9 | 16.8 | 14.3 | 15.2 | 16.6 | 92\% | 9\% | -11\% | -1\% | -1\% |
| 25. $(-1)$ | United States | Boston | 19.8 | 16.5 | 15.3 | 15.7 | 16.0 | 89\% | 2\% | -17\% | -3\% | -3\% |
| 26. (-8) | Spain | Madrid | 19.6 | 14.9 | 16.8 | 18.1 | 15.8 | 88\% | -13\% | -28\% | 6\% | 6\% |
| 27. $(+6)$ | Hong Kong | Hong Kong | 9.4 | 12.6 | 8.6 | 10.5 | 15.7 | 87\% | 49\% | 22\% | 24\% | 24\% |
| 28. $(-1)$ | South Africa | Johannesburg | 10.3 | 11.3 | 9.2 | 14.8 | 14.7 | 81\% | -1\% | -19\% | 29\% | 29\% |
| 29. $(-8)$ | Portugal | Lisbon | 11.3 | 13.6 | 17.9 | 16.9 | 14.6 | 81\% | -14\% | -29\% | 7\% | 7\% |
| 29. (+1) | Greece | Athens | 15.2 | 15.1 | 14.3 | 12.5 | 14.6 | 81\% | 17\% | -4\% | -3\% | -3\% |
| 31. (-6) | Canada | Vancouver | 25.4 | 23.8 | 18.9 | 15.4 | 14.0 | 78\% | -9\% | -26\% | -41\% | -41\% |
| 32. $(-1)$ | Brazil | Sao Paulo | 11.3 | 10.4 | 10.9 | 11.7 | 12.3 | 69\% | 6\% | -13\% | 18\% | 19\% |
| 33. $(-1)$ | Czech Republic | Prague | 12.3 | 11.3 | 10.7 | 11.4 | 11.6 | 65\% | 2\% | -16\% | 3\% | 3\% |
| 34. (+2) | Singapore | Singapore | 9.7 | 11.5 | 9.6 | 8.7 | 10.5 | 59\% | 21\% | -1\% | -8\% | -8\% |
| 35. $(+6)$ | China | Shanghai | 6.1 | 5.6 | 5.8 | 5.6 | 8.4 | 47\% | 51\% | 23\% | 50\% | 50\% |
| 36. (+2) | Poland | Warsaw | 9.4 | 6.8 | 6.9 | 7.1 | 8.4 | 46\% | 18\% | -4\% | 23\% | 24\% |
| 37. (-2) | United Arab Emirates | Dubai | 7.1 | 6.5 | 9.5 | 8.7 | 7.9 | 44\% | -9\% | -26\% | 21\% | 21\% |
| 38. $(+9)$ | Philippines | Manila | 3.5 | 9.0 | 4.8 | 2.6 | 7.9 | 44\% | 204\% | 149\% | -12\% | -12\% |
| 39. $(-5)$ | Brazil | Rio de Janeiro | 10.9 | 10.2 | 9.0 | 9.5 | 7.7 | 43\% | -19\% | -33\% | -24\% | -24\% |
| 40. $(-1)$ | South Africa | Cape Town | 8.4 | 8.5 | 7.4 | 7.0 | 7.4 | 41\% | 5\% | -14\% | -14\% | -14\% |
| 41. $(-1)$ | Russia | Moscow | 15.2 | 10.5 | 6.4 | 6.5 | 6.7 | 37\% | 3\% | -15\% | -37\% | -37\% |
| 42. $(-5)$ | Turkey | Istanbul | 8.3 | 9.9 | 9.9 | 8.3 | 6.3 | 35\% | -24\% | -37\% | -36\% | -36\% |
| 43. $(-1)$ | Malaysia | Kuala Lumpur | 4.6 | 4.7 | 3.8 | 5.2 | 5.4 | 30\% | 3\% | -16\% | 13\% | 14\% |
| 44. (-) | Mexico | Mexico City | 4.5 | 6.4 | 3.9 | 3.4 | 4.7 | 26\% | 40\% | 14\% | -26\% | -25\% |
| 45. (-2) | Indonesia | Jakarta | 3.9 | 4.2 | 4.4 | 3.6 | 4.5 | 25\% | 26\% | 3\% | 8\% | 8\% |
| 46. (+2) | India | New Delhi | 3.1 | 2.9 | 2.6 | 2.5 | 3.4 | 19\% | 32\% | 8\% | 16\% | 17\% |
| 47. (-2) | India | Mumbai | 2.7 | 2.8 | 2.8 | 3.3 | 3.1 | 17\% | -7\% | -24\% | 9\% | 9\% |
| 48. $(-2)$ | India | Bangalore | 3.8 | 3.2 | 3.2 | 2.6 | 2.9 | 16\% | 12\% | -9\% | -7\% | -7\% |
| Source: www | v.expatisan.com |  |  |  |  |  |  |  |  |  |  |  |

Figure 20: 1 Ticket to the Cinema

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change <br> (\%) Rel. To NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Switzerland | Zurich | 20.7 | 19.8 | 19.8 | 18.0 | 18.8 | 121\% | 5\% | 4\% | -5\% | -13\% |
| 02. (+3) | United Kingdom | London | 18.6 | 17.7 | 16.6 | 14.9 | 16.7 | 108\% | -10\% | -11\% | -6\% | -13\% |
| 03. (+5) | Norway | Oslo | 18.4 | 14.4 | 15.1 | 14.6 | 16.5 | 106\% | -3\% | -4\% | 14\% | 5\% |
| 04. (+3) | Denmark | Copenhagen | 18.4 | 13.5 | 14.5 | 14.6 | 15.9 | 103\% | 1\% | 0\% | 18\% | 9\% |
| 05. (+4) | Finland | Helsinki | 17.0 | 12.9 | 13.3 | 14.5 | 15.8 | 102\% | 9\% | 8\% | 23\% | 13\% |
| 06. (-4) | Japan | Tokyo | 17.5 | 15.2 | 15.3 | 15.7 | 15.6 | 101\% | 3\% | 2\% | 3\% | -6\% |
| 07. (-4) | United States | New York City | 13.2 | 14.2 | 15.4 | 15.6 | 15.5 | 100\% | 1\% | 0\% | 9\% | 0\% |
| 08. (-4) | Australia | Sydney | 17.3 | 14.0 | 14.2 | 15.1 | 15.1 | 98\% | 6\% | 5\% | 8\% | -1\% |
| 09. (+1) | Sweden | Stockholm | 16.5 | 12.8 | 15.1 | 14.3 | 15.1 | 97\% | -6\% | -7\% | 18\% | 8\% |
| 10. (-4) | Australia | Melbourne | 16.8 | 15.0 | 14.3 | 14.7 | 14.4 | 93\% | 3\% | 1\% | -4\% | -12\% |
| 11. (+3) | Netherlands | Amsterdam | 14.2 | 11.2 | 12.1 | 12.5 | 14.0 | 90\% | 3\% | 2\% | 25\% | 15\% |
| 11. ( +4 ) | Belgium | Brussels | 13.2 | 10.4 | 11.1 | 12.5 | 14.0 | 90\% | 13\% | 12\% | 35\% | 24\% |
| 13. (-) | United Kingdom | Edinburgh | 15.4 | 13.4 | 12.9 | 12.6 | 13.9 | 90\% | -2\% | -3\% | 4\% | -4\% |
| 14. (-3) | United States | San Francisco | 12.3 | 13.4 | 12.8 | 13.5 | 13.5 | 87\% | 5\% | 4\% | 1\% | -7\% |
| 15. (+5) | Ireland | Dublin | 13.7 | 11.7 | 11.6 | 11.0 | 13.4 | 86\% | -5\% | -6\% | 14\% | 5\% |
| 15. (+6) | Austria | Vienna | 11.7 | 9.6 | 10.7 | 10.9 | 13.4 | 86\% | 2\% | 1\% | 39\% | 28\% |
| 17. (-1) | United States | Boston | 12.1 | 12.0 | 12.7 | 12.5 | 13.0 | 84\% | -2\% | -3\% | 8\% | -1\% |
| 18. (-) | France | Paris | 13.9 | 10.8 | 11.6 | 11.7 | 12.8 | 83\% | 1\% | 0\% | 19\% | 9\% |
| 19. (-7) | United States | Chicago | 11.5 | 11.3 | 12.3 | 12.6 | 12.5 | 81\% | 3\% | 2\% | 11\% | 2\% |
| 20. (-3) | Hong Kong | Hong Kong | 10.5 | 10.5 | 12.3 | 11.7 | 12.4 | 80\% | -5\% | -6\% | 19\% | 9\% |
| 21. $(+3)$ | Germany | Frankfurt | 14.1 | 10.2 | 11.5 | 10.4 | 12.2 | 79\% | -10\% | -11\% | 20\% | 10\% |
| 22. $(-3)$ | New Zealand | Auckland | 14.3 | 12.6 | 11.7 | 11.5 | 12.0 | 77\% | -2\% | -3\% | -4\% | -12\% |
| 23. $(-1)$ | Germany | Berlin | 12.6 | 10.5 | 10.6 | 10.6 | 11.6 | 75\% | 0\% | -1\% | 10\% | 1\% |
| 23. $(+6)$ | Italy | Milan | 11.3 | 9.0 | 9.4 | 9.2 | 11.6 | 75\% | -2\% | -3\% | 29\% | 18\% |
| 25. (+1) | Canada | Toronto | 12.1 | 11.4 | 10.8 | 10.2 | 11.3 | 73\% | -5\% | -7\% | -1\% | -9\% |
| 25. (-) | Canada | Vancouver | 11.8 | 11.1 | 11.0 | 10.3 | 11.3 | 73\% | -7\% | -8\% | 2\% | -7\% |
| 27. (-) | Spain | Madrid | 11.8 | 9.5 | 10.1 | 9.9 | 11.0 | 71\% | -2\% | -3\% | 16\% | 6\% |
| 28. (-) | United Arab Emirates | Dubai | 10.1 | 9.7 | 10.1 | 9.8 | 10.5 | 68\% | -3\% | -4\% | 8\% | -1\% |
| 29. (-6) | China | Shanghai | 13.9 | 13.3 | 12.4 | 10.6 | 9.7 | 63\% | -15\% | -16\% | -27\% | -33\% |
| 30. (+3) | New Zealand | Wellington | 14.1 | 12.5 | 11.7 | 8.4 | 9.5 | 62\% | -28\% | -29\% | -23\% | -30\% |
| 31. (-) | Singapore | Singapore | 8.7 | 8.3 | 8.6 | 8.5 | 9.4 | 61\% | 0\% | -1\% | 13\% | 4\% |
| 32. (+5) | Czech Republic | Prague | 7.7 | 6.4 | 6.7 | 6.9 | 9.2 | 59\% | 3\% | 2\% | 44\% | 32\% |
| 33. (+1) | Greece | Athens | 10.2 | 8.2 | 8.4 | 8.3 | 9.1 | 59\% | -2\% | -3\% | 12\% | 3\% |
| 34. (-2) | Brazil | Sao Paulo | 10.1 | 8.2 | 7.1 | 8.4 | 8.5 | 55\% | 20\% | 18\% | 3\% | -6\% |
| 35. (+1) | Portugal | Lisbon | 8.3 | 7.3 | 7.2 | 7.0 | 7.9 | 51\% | -3\% | -4\% | 8\% | -1\% |
| 36. (-6) | Brazil | Rio de Janeiro | 9.4 | 7.8 | 7.2 | 8.6 | 7.7 | 50\% | 20\% | 19\% | 0\% | -9\% |
| 37. (+1) | Poland | Warsaw | 8.0 | 6.8 | 6.9 | 6.7 | 7.6 | 49\% | -4\% | -5\% | 13\% | 3\% |
| 38. $(-3)$ | Russia | Moscow | 9.5 | 7.5 | 6.1 | 7.2 | 6.5 | 42\% | 19\% | 18\% | -13\% | -21\% |
| 39. (-) | South Africa | Cape Town | 4.5 | 4.4 | 4.2 | 5.4 | 6.4 | 41\% | 28\% | 27\% | 46\% | 34\% |
| 40. (+1) | South Africa | Johannesburg | 5.0 | 5.1 | 4.3 | 5.2 | 6.2 | 40\% | 19\% | 18\% | 20\% | 10\% |
| 41. (+1) | Philippines | Manila | 4.7 | 5.2 | 4.9 | 5.1 | 5.1 | 33\% | 4\% | 3\% | -3\% | -11\% |
| 42. $(-2)$ | Turkey | Istanbul | 7.2 | 6.0 | 6.3 | 5.2 | 4.6 | 30\% | -18\% | -19\% | -23\% | -30\% |
| 43. (+1) | India | New Delhi | 4.1 | 4.4 | 4.6 | 4.6 | 4.6 | 30\% | 1\% | 0\% | 4\% | -5\% |
| 44. $(-1)$ | India | Bangalore | 4.1 | 4.0 | 4.1 | 5.1 | 4.1 | 26\% | 25\% | 23\% | 2\% | -6\% |
| 45. (+1) | Mexico | Mexico City | 5.0 | 4.4 | 4.1 | 4.1 | 4.0 | 26\% | -1\% | -2\% | -8\% | -15\% |
| 46. $(-1)$ | India | Mumbai | 3.8 | 3.7 | 4.1 | 4.3 | 4.0 | 26\% | 5\% | 4\% | 6\% | -3\% |
| 47. (+1) | Malaysia | Kuala Lumpur | 3.8 | 4.1 | 4.1 | 3.3 | 3.8 | 25\% | -19\% | -20\% | -7\% | -14\% |
| 48. (-1) | Indonesia | Jakarta | 3.6 | 3.7 | 4.0 | 3.9 | 3.6 | 23\% | -2\% | -3\% | -3\% | -11\% |

Source: www expatsan

Figure 21: 1 Month of Gym Membership in the Business District

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to <br> NY | YoY Change (\%) | YoY Change <br> (\%) Rel. To <br> NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Japan | Tokyo | 96.8 | 90.7 | 123.1 | 129.0 | 127.2 | 127\% | -1\% | 15\% | 40\% | 38\% |
| 02. (+2) | United Arab Emirates | Dubai | 102.4 | 105.6 | 113.3 | 113.8 | 119.2 | 119\% | 5\% | 23\% | 13\% | 11\% |
| 03. $(+4)$ | Hong Kong | Hong Kong | 103.3 | 72.6 | 100.2 | 95.7 | 105.6 | 106\% | 10\% | 29\% | 46\% | 44\% |
| 04. $(+1)$ | Singapore | Singapore | 132.5 | 96.4 | 105.4 | 105.0 | 103.9 | 104\% | -1\% | 16\% | 8\% | 6\% |
| 05. (-3) | Switzerland | Zurich | 108.2 | 123.3 | 127.3 | 117.9 | 100.8 | 101\% | -15\% | 0\% | -18\% | -19\% |
| 06. (-3) | United States | New York City | 109.1 | 98.6 | 93.2 | 117.0 | 100.0 | 100\% | -15\% | 0\% | 1\% | 0\% |
| 07. (+1) | United States | San Francisco | 81.6 | 61.7 | 92.8 | 91.2 | 99.0 | 99\% | 9\% | 27\% | 61\% | 58\% |
| 08. $(+3)$ | United Kingdom | London | 117.8 | 84.5 | 98.0 | 83.4 | 99.0 | 99\% | 19\% | 39\% | 17\% | 15\% |
| 09. $(+3)$ | Italy | Milan | 95.7 | 90.2 | 84.3 | 79.7 | 98.7 | 99\% | 24\% | 45\% | 9\% | 8\% |
| 10. $(+3)$ | France | Paris | 98.8 | 88.1 | 83.7 | 77.4 | 97.5 | 97\% | 26\% | 47\% | 11\% | 9\% |
| 11. $(-5)$ | United States | Boston | 77.7 | 66.2 | 72.8 | 96.6 | 95.0 | 95\% | -2\% | 15\% | 44\% | 42\% |
| 12. $(+3)$ | Austria | Vienna | 110.1 | 81.1 | 81.9 | 69.2 | 86.5 | 87\% | 25\% | 46\% | 7\% | 5\% |
| 13. $(+3)$ | Australia | Sydney | 74.9 | 57.1 | 66.6 | 68.2 | 84.7 | 85\% | 24\% | 45\% | 48\% | 46\% |
| 14. $(+5)$ | Finland | Helsinki | 98.2 | 68.9 | 64.6 | 63.6 | 80.4 | 80\% | 26\% | 48\% | 17\% | 15\% |
| 15. (-6) | Russia | Moscow | 137.8 | 113.1 | 108.0 | 84.8 | 76.4 | 76\% | -10\% | 6\% | -32\% | -33\% |
| 16. $(-2)$ | United States | Chicago | 64.0 | 84.2 | 78.4 | 72.6 | 72.0 | 72\% | -1\% | 16\% | -14\% | -16\% |
| 17. $(+1)$ | Norway | Oslo | 81.0 | 61.1 | 61.6 | 64.2 | 67.8 | 68\% | 6\% | 24\% | 11\% | 9\% |
| 18. $(-8)$ | China | Shanghai | 89.8 | 59.1 | 53.6 | 83.6 | 65.9 | 66\% | -21\% | -8\% | 11\% | 10\% |
| 19. $(+18)$ | Germany | Frankfurt | 68.6 | 50.7 | 49.9 | 44.5 | 65.8 | 66\% | 48\% | 73\% | 30\% | 28\% |
| 20. $(+8)$ | New Zealand | Auckland | 72.4 | 64.0 | 52.0 | 51.7 | 61.5 | 61\% | 19\% | 39\% | -4\% | -5\% |
| 21. $(+2)$ | Belgium | Brussels | 98.0 | 59.4 | 63.8 | 56.6 | 59.7 | 60\% | 6\% | 24\% | 0\% | -1\% |
| 22. (-) | Portugal | Lisbon | 76.5 | 56.1 | 54.5 | 57.4 | 57.3 | 57\% | 0\% | 17\% | 2\% | 1\% |
| 23. $(-2)$ | Sweden | Stockholm | 75.4 | 51.4 | 60.6 | 61.2 | 57.0 | 57\% | -7\% | 9\% | 11\% | 9\% |
| 24. (+10) | Canada | Vancouver | 48.9 | 48.5 | 44.9 | 46.3 | 56.7 | 57\% | 22\% | 43\% | 17\% | 15\% |
| 25. (+6) | Germany | Berlin | 62.8 | 36.8 | 56.1 | 48.9 | 56.0 | 56\% | 15\% | 34\% | 52\% | 50\% |
| 26. (-1) | Australia | Melbourne | 68.6 | 55.1 | 56.6 | 55.2 | 56.0 | 56\% | 1\% | 19\% | 2\% | 0\% |
| 27. (+2) | Canada | Toronto | 64.3 | 50.3 | 57.5 | 49.2 | 55.9 | 56\% | 14\% | 33\% | 11\% | 10\% |
| 28. (-11) | Mexico | Mexico City | 114.3 | 72.0 | 61.0 | 66.5 | 55.8 | 56\% | -16\% | -2\% | -22\% | -24\% |
| 29. (-5) | Ireland | Dublin | 68.4 | 69.9 | 58.0 | 56.5 | 53.6 | 54\% | -5\% | 11\% | -23\% | -24\% |
| 30. (-10) | Brazil | Sao Paulo | 114.9 | 78.9 | 55.4 | 62.8 | 51.9 | 52\% | -17\% | -3\% | -34\% | -35\% |
| 31. (-4) | Spain | Madrid | 78.5 | 65.0 | 61.0 | 51.9 | 51.2 | 51\% | -1\% | 15\% | -21\% | -22\% |
| 32. $(+15)$ | South Africa | Cape Town | 40.4 | 38.7 | 36.8 | 36.9 | 50.7 | 51\% | 38\% | 61\% | 31\% | 29\% |
| 33. $(+7)$ | United Kingdom | Edinburgh | 73.5 | 49.4 | 47.8 | 42.4 | 50.2 | 50\% | 18\% | 38\% | 2\% | 0\% |
| 34. (+10) | Malaysia | Kuala Lumpur | 55.7 | 49.3 | 48.4 | 39.0 | 49.3 | 49\% | 27\% | 48\% | 0\% | -1\% |
| 35. (+1) | India | Mumbai | 39.6 | 53.0 | 45.0 | 45.1 | 46.7 | 47\% | 3\% | 21\% | -12\% | -13\% |
| 36. (+2) | Netherlands | Amsterdam | 58.1 | 43.5 | 51.8 | 43.4 | 46.3 | 46\% | 7\% | 25\% | 6\% | 5\% |
| 36. $(+7)$ | Greece | Athens | 62.8 | 60.9 | 43.6 | 39.1 | 46.3 | 46\% | 18\% | 39\% | -24\% | -25\% |
| 38. $(+10)$ | South Africa | Johannesburg | 42.4 | 35.3 | 37.2 | 33.6 | 44.9 | 45\% | 34\% | 56\% | 27\% | 25\% |
| 39. (-) | Indonesia | Jakarta | 45.2 | 39.8 | 41.8 | 43.1 | 44.1 | 44\% | 2\% | 20\% | 11\% | 9\% |
| 40. (-10) | Brazil | Rio de Janeiro | 71.6 | 55.1 | 45.8 | 48.9 | 43.3 | 43\% | -11\% | 4\% | -21\% | -22\% |
| 41. $(-15)$ | Turkey | Istanbul | 83.8 | 69.0 | 63.3 | 53.0 | 42.2 | 42\% | -20\% | -7\% | -39\% | -40\% |
| 42. $(-1)$ | Denmark | Copenhagen | 64.5 | 32.4 | 38.6 | 41.3 | 42.0 | 42\% | 2\% | 19\% | 30\% | 28\% |
| 43. $(-1)$ | Czech Republic | Prague | 52.1 | 41.3 | 40.2 | 40.2 | 39.8 | 40\% | -1\% | 16\% | -4\% | -5\% |
| 44. (-11) | Philippines | Manila | 59.1 | 67.0 | 62.5 | 47.6 | 38.9 | 39\% | -18\% | -4\% | -42\% | -43\% |
| 45. (-) | Poland | Warsaw | 72.0 | 50.6 | 40.7 | 38.3 | 38.9 | 39\% | 1\% | 19\% | -23\% | -24\% |
| 46. (-) | India | New Delhi | 34.5 | 40.4 | 41.6 | 37.2 | 37.6 | 38\% | 1\% | 18\% | -7\% | -8\% |
| 47. (-12) | New Zealand | Wellington | 101.9 | 71.8 | 59.1 | 45.5 | 33.2 | 33\% | -27\% | -15\% | -54\% | -54\% |
| 48. (-16) | India | Bangalore | 33.9 | 34.7 | 23.4 | 48.2 | 28.5 | 28\% | -41\% | -31\% | -18\% | -19\% |

Source: www.expatisan.com

Figure 22: Men's Standard Haircut in the Expat Area of the City

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3 -yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Switzerland | Zurich | 62.1 | 50.1 | 57.4 | 62.0 | 45.8 | 176\% | -26\% | -29\% | -9\% | -30\% |
| 02. $(+5)$ | United States | San Francisco | 28.2 | 29.4 | 25.9 | 30.4 | 42.0 | 162\% | 38\% | 33\% | 43\% | 9\% |
| 03. $(-1)$ | Norway | Oslo | 81.8 | 57.3 | 55.0 | 48.1 | 40.2 | 155\% | -16\% | -20\% | -30\% | -47\% |
| 04. (-1) | Denmark | Copenhagen | 46.9 | 32.2 | 42.7 | 45.1 | 38.6 | 148\% | -14\% | -18\% | 20\% | -8\% |
| 05. (-) | Sweden | Stockholm | 47.8 | 42.2 | 44.1 | 34.4 | 36.3 | 139\% | 6\% | 1\% | -14\% | -35\% |
| 06. (+3) | Finland | Helsinki | 38.7 | 30.7 | 26.9 | 27.7 | 34.1 | 131\% | 23\% | 18\% | 11\% | -15\% |
| 07. (-1) | Netherlands | Amsterdam | 43.7 | 33.3 | 34.3 | 31.4 | 32.9 | 127\% | 5\% | 0\% | -1\% | -25\% |
| 08. (-4) | Japan | Tokyo | 39.5 | 32.1 | 32.9 | 35.2 | 32.0 | 123\% | -9\% | -13\% | 0\% | -24\% |
| 09. (+6) | Hong Kong | Hong Kong | 35.4 | 24.3 | 26.9 | 22.7 | 31.0 | 119\% | 36\% | 31\% | 27\% | -3\% |
| 10. (-2) | France | Paris | 31.8 | 22.8 | 25.8 | 28.0 | 30.5 | 117\% | 9\% | 4\% | 34\% | 2\% |
| 11. $(+13)$ | Australia | Sydney | 26.4 | 20.5 | 19.0 | 18.3 | 27.2 | 105\% | 49\% | 43\% | 33\% | 1\% |
| 12. $(-1)$ | Belgium | Brussels | 30.6 | 22.3 | 25.2 | 25.8 | 26.8 | 103\% | 4\% | 0\% | 20\% | -8\% |
| 12. $(+4)$ | Germany | Frankfurt | 24.7 | 20.5 | 21.1 | 22.3 | 26.8 | 103\% | 20\% | 15\% | 31\% | 0\% |
| 14. (-2) | United States | New York City | 33.0 | 19.8 | 24.4 | 24.9 | 26.0 | 100\% | 4\% | 0\% | 31\% | 0\% |
| 15. (+6) | Italy | Milan | 24.5 | 21.1 | 22.2 | 20.2 | 25.6 | 98\% | 27\% | 22\% | 21\% | -8\% |
| 16. $(-2)$ | United Kingdom | London | 26.7 | 21.2 | 24.8 | 24.1 | 25.1 | 97\% | 4\% | 0\% | 19\% | -10\% |
| 17. $(+1)$ | United States | Chicago | 19.6 | 23.7 | 23.0 | 20.6 | 25.0 | 96\% | 21\% | 16\% | 6\% | -20\% |
| 18. $(-1)$ | Austria | Vienna | 34.8 | 24.8 | 23.9 | 20.7 | 24.4 | 94\% | 18\% | 13\% | -2\% | -25\% |
| 19. (-9) | United States | Boston | 20.3 | 19.0 | 20.4 | 26.1 | 24.0 | 92\% | -8\% | -12\% | 26\% | -4\% |
| 20. $(+9)$ | Canada | Vancouver | 20.8 | 23.8 | 17.3 | 16.9 | 23.3 | 90\% | 38\% | 32\% | -2\% | -25\% |
| 21. (+2) | Singapore | Singapore | 20.6 | 23.1 | 21.9 | 18.4 | 21.8 | 84\% | 18\% | 14\% | -6\% | -28\% |
| 22. $(-3)$ | Germany | Berlin | 19.7 | 17.8 | 19.2 | 20.5 | 20.7 | 80\% | 1\% | -3\% | 16\% | -11\% |
| 23. (-1) | Australia | Melbourne | 28.7 | 24.4 | 24.6 | 20.1 | 20.4 | 79\% | 2\% | -2\% | -16\% | -36\% |
| 24. (+2) | Canada | Toronto | 20.8 | 17.1 | 20.6 | 18.0 | 20.2 | 78\% | 12\% | 7\% | 18\% | -10\% |
| 25. (-12) | New Zealand | Wellington | 27.2 | 25.8 | 24.2 | 24.2 | 19.8 | 76\% | -18\% | -21\% | -23\% | -42\% |
| 26. $(-1)$ | United Kingdom | Edinburgh | 18.9 | 15.6 | 18.7 | 18.1 | 19.5 | 75\% | 8\% | 3\% | 25\% | -5\% |
| 27. $(+3)$ | Ireland | Dublin | 17.2 | 15.1 | 16.7 | 16.4 | 18.3 | 70\% | 11\% | 7\% | 21\% | -8\% |
| 27. (+10) | Portugal | Lisbon | 16.5 | 13.8 | 12.5 | 11.4 | 18.3 | 70\% | 60\% | 53\% | 32\% | 1\% |
| 29. (-2) | United Arab Emirates | Dubai | 14.7 | 15.2 | 16.3 | 17.4 | 18.2 | 70\% | 5\% | 0\% | 20\% | -9\% |
| 30. $(+1)$ | Czech Republic | Prague | 14.3 | 10.6 | 14.0 | 13.7 | 17.0 | 66\% | 25\% | 19\% | 61\% | 23\% |
| 31. $(-3)$ | New Zealand | Auckland | 21.6 | 18.2 | 16.9 | 17.1 | 16.3 | 63\% | -5\% | -9\% | -11\% | -32\% |
| 32. (+2) | Spain | Madrid | 18.4 | 12.6 | 14.2 | 12.6 | 15.8 | 61\% | 25\% | 20\% | 25\% | -4\% |
| 33. (-13) | Russia | Moscow | 19.2 | 15.7 | 15.8 | 20.3 | 15.5 | 60\% | -24\% | -27\% | -1\% | -25\% |
| 34. (-2) | Greece | Athens | 17.1 | 12.8 | 13.1 | 13.6 | 14.6 | 56\% | 7\% | 3\% | 14\% | -13\% |
| 35. $(+4)$ | South Africa | Cape Town | 10.3 | 11.1 | 11.2 | 10.0 | 13.3 | 51\% | 34\% | 28\% | 20\% | -9\% |
| 36. $(-3)$ | Brazil | Sao Paulo | 16.1 | 16.5 | 11.1 | 12.9 | 12.6 | 49\% | -2\% | -6\% | -23\% | -42\% |
| 37. (-1) | China | Shanghai | 16.0 | 24.0 | 20.8 | 12.2 | 12.5 | 48\% | 3\% | -2\% | -48\% | -60\% |
| 38. $(+2)$ | Poland | Warsaw | 15.0 | 11.2 | 11.2 | 9.7 | 12.1 | 47\% | 25\% | 20\% | 8\% | -17\% |
| 39. (-1) | South Africa | Johannesburg | 15.2 | 9.0 | 9.1 | 10.5 | 12.1 | 47\% | 15\% | 10\% | 35\% | 3\% |
| 40. $(-5)$ | Brazil | Rio de Janeiro | 11.3 | 10.2 | 11.8 | 12.3 | 11.8 | 45\% | -4\% | -8\% | 15\% | -12\% |
| 41. (+2) | Malaysia | Kuala Lumpur | 10.4 | 11.3 | 9.0 | 8.3 | 9.5 | 36\% | 14\% | 10\% | -16\% | -36\% |
| 42. $(-1)$ | Mexico | Mexico City | 12.9 | 8.1 | 9.3 | 8.9 | 9.0 | 35\% | 1\% | -3\% | 10\% | -16\% |
| 43. $(+1)$ | Indonesia | Jakarta | 7.4 | 6.2 | 8.9 | 7.1 | 8.6 | 33\% | 21\% | 16\% | 38\% | 5\% |
| 44. (-2) | Turkey | Istanbul | 12.1 | 10.0 | 9.2 | 8.7 | 7.6 | 29\% | -13\% | -17\% | -25\% | -43\% |
| 45. (+3) | India | New Delhi | 4.3 | 2.3 | 3.5 | 3.1 | 5.4 | 21\% | 71\% | 64\% | 130\% | 75\% |
| 46. (+1) | India | Mumbai | 3.7 | 3.6 | 4.3 | 4.5 | 5.2 | 20\% | 15\% | 10\% | 42\% | 8\% |
| 47. $(-2)$ | Philippines | Manila | 6.3 | 5.7 | 5.4 | 6.2 | 4.5 | 17\% | -27\% | -30\% | -22\% | -40\% |
| 48. (-2) | India | Bangalore | 5.3 | 3.7 | 2.7 | 4.5 | 4.5 | 17\% | -2\% | -6\% | 20\% | -8\% |

[^0]Figure 23: 1 Pack of Marlboro Cigarettes

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Australia | Melbourne | 17.4 | 18.4 | 18.3 | 20.7 | 22.7 | 162\% | 10\% | 2\% | 23\% | 18\% |
| 02. (-) | Australia | Sydney | 17.2 | 17.5 | 18.0 | 19.2 | 21.9 | 157\% | 14\% | 7\% | 26\% | 20\% |
| 03. (-) | New Zealand | Auckland | 14.8 | 15.6 | 15.6 | 16.3 | 19.1 | 136\% | 17\% | 9\% | 22\% | 17\% |
| 04. (-) | New Zealand | Wellington | 14.7 | 15.6 | 14.9 | 15.7 | 18.4 | 131\% | 17\% | 9\% | 18\% | 13\% |
| 05. (+1) | Norway | Oslo | 17.5 | 12.7 | 13.8 | 12.7 | 14.7 | 105\% | 16\% | 8\% | 15\% | 10\% |
| 06. (+1) | Ireland | Dublin | 13.2 | 11.0 | 11.6 | 11.9 | 14.6 | 104\% | 23\% | 15\% | 33\% | 27\% |
| 07. (-2) | United States | New York City | 12.1 | 13.4 | 13.6 | 13.1 | 14.0 | 100\% | 7\% | 0\% | 5\% | 0\% |
| 08. (-) | United Kingdom | London | 13.8 | 13.2 | 13.3 | 11.8 | 13.9 | 100\% | 18\% | 10\% | 6\% | 1\% |
| 09. $(+1)$ | United Kingdom | Edinburgh | 13.7 | 12.4 | 13.0 | 11.2 | 12.5 | 90\% | 12\% | 4\% | 2\% | -3\% |
| 10. (-1) | United States | Chicago | 11.1 | 11.2 | 12.3 | 11.2 | 12.0 | 86\% | 7\% | 0\% | 7\% | 3\% |
| 11. (-) | United States | Boston | 9.5 | 10.0 | 10.2 | 10.6 | 11.0 | 79\% | 4\% | -3\% | 10\% | 6\% |
| 12. $(+1)$ | Canada | Vancouver | 10.0 | 9.9 | 9.5 | 9.6 | 10.9 | 78\% | 14\% | 6\% | 10\% | 6\% |
| 13. (+1) | Canada | Toronto | 8.9 | 9.2 | 9.5 | 8.8 | 10.1 | 72\% | 15\% | 8\% | 10\% | 5\% |
| 14. (+4) | United States | San Francisco | 6.7 | 7.2 | 7.2 | 7.3 | 10.0 | 71\% | 37\% | 27\% | 39\% | 33\% |
| 15. $(-3)$ | Singapore | Singapore | 9.6 | 9.6 | 9.5 | 9.6 | 9.8 | 70\% | 2\% | -5\% | 2\% | -2\% |
| 16. (-) | France | Paris | 9.6 | 7.6 | 8.0 | 7.7 | 9.1 | 65\% | 19\% | 11\% | 21\% | 16\% |
| 17. (+2) | Netherlands | Amsterdam | 8.2 | 6.6 | 6.9 | 7.1 | 8.2 | 58\% | 15\% | 7\% | 24\% | 19\% |
| 18. $(-3)$ | Switzerland | Zurich | 8.7 | 8.6 | 8.6 | 8.2 | 8.1 | 58\% | -1\% | -8\% | -5\% | -9\% |
| 19. (+3) | Finland | Helsinki | 7.6 | 6.2 | 6.6 | 6.7 | 7.8 | 56\% | 16\% | 9\% | 25\% | 19\% |
| 20. (+3) | Germany | Frankfurt | 7.1 | 5.7 | 6.6 | 6.6 | 7.7 | 55\% | 17\% | 9\% | 36\% | 30\% |
| 21. (-) | Germany | Berlin | 7.0 | 5.8 | 6.6 | 6.7 | 7.6 | 54\% | 12\% | 5\% | 29\% | 23\% |
| 22. (+2) | Belgium | Brussels | 7.3 | 6.1 | 6.4 | 6.6 | 7.4 | 53\% | 13\% | 6\% | 23\% | 17\% |
| 23. (-6) | Hong Kong | Hong Kong | 7.0 | 7.2 | 7.7 | 7.6 | 7.3 | 52\% | -4\% | -11\% | 1\% | -4\% |
| 24. (-4) | Sweden | Stockholm | 8.6 | 6.8 | 7.3 | 6.8 | 7.1 | 51\% | 5\% | -2\% | 5\% | 1\% |
| 25. (-) | Denmark | Copenhagen | 8.0 | 6.2 | 6.7 | 6.2 | 7.0 | 50\% | 13\% | 6\% | 13\% | 8\% |
| 26. $(+1)$ | Austria | Vienna | 6.8 | 5.4 | 5.6 | 5.6 | 6.5 | 46\% | 15\% | 8\% | 19\% | 14\% |
| 27. $(-1)$ | Italy | Milan | 6.9 | 5.6 | 5.9 | 5.7 | 6.3 | 45\% | 11\% | 4\% | 14\% | 9\% |
| 28. (-) | Spain | Madrid | 6.6 | 5.4 | 5.6 | 5.3 | 6.2 | 44\% | 17\% | 9\% | 16\% | 11\% |
| 29. (-) | Portugal | Lisbon | 6.1 | 4.9 | 5.3 | 5.2 | 6.0 | 43\% | 14\% | 6\% | 21\% | 15\% |
| 30. (-) | Greece | Athens | 5.4 | 4.2 | 4.5 | 4.4 | 5.2 | 37\% | 19\% | 11\% | 24\% | 18\% |
| 31. (+2) | Czech Republic | Prague | 4.3 | 3.5 | 3.8 | 4.0 | 4.7 | 34\% | 19\% | 11\% | 36\% | 30\% |
| 32. $(+11)$ | United Arab Emirates | Dubai | 3.5 | 2.7 | 3.0 | 2.7 | 4.6 | 33\% | 70\% | 59\% | 70\% | 63\% |
| 33. $(+1)$ | Poland | Warsaw | 4.4 | 3.7 | 3.8 | 3.9 | 4.6 | 33\% | 17\% | 9\% | 23\% | 18\% |
| 34. $(+1)$ | Malaysia | Kuala Lumpur | 3.7 | 3.5 | 3.9 | 3.9 | 4.3 | 31\% | 13\% | 5\% | 23\% | 17\% |
| 35. (-3) | Japan | Tokyo | 4.4 | 3.8 | 4.0 | 4.1 | 4.2 | 30\% | 4\% | -3\% | 13\% | 8\% |
| 36. $(-5)$ | India | New Delhi | 2.5 | 3.2 | 3.2 | 4.2 | 3.8 | 27\% | -8\% | -14\% | 22\% | 16\% |
| 37. $(-1)$ | India | Bangalore | 2.4 | 3.2 | 2.3 | 3.8 | 3.6 | 26\% | -6\% | -13\% | 13\% | 8\% |
| 38. (-) | India | Mumbai | 3.0 | 2.7 | 3.2 | 3.3 | 3.5 | 25\% | 6\% | -1\% | 32\% | 27\% |
| 39. (+2) | South Africa | Johannesburg | 3.4 | 2.8 | 2.6 | 2.9 | 3.3 | 23\% | 15\% | 7\% | 15\% | 10\% |
| 40. (-) | South Africa | Cape Town | 3.2 | 2.9 | 2.4 | 3.0 | 3.2 | 23\% | 7\% | 0\% | 11\% | 6\% |
| 41. (-4) | Turkey | Istanbul | 4.3 | 3.6 | 3.6 | 3.4 | 3.2 | 23\% | -6\% | -12\% | -13\% | -17\% |
| 42. $(-3)$ | China | Shanghai | 2.7 | 2.6 | 3.1 | 3.1 | 3.2 | 23\% | 1\% | -6\% | 21\% | 16\% |
| 43. $(+1)$ | Brazil | Sao Paulo | 3.0 | 2.3 | 2.1 | 2.7 | 3.2 | 23\% | 16\% | 8\% | 38\% | 32\% |
| 44. $(-2)$ | Mexico | Mexico City | 3.3 | 3.0 | 2.8 | 2.8 | 2.7 | 19\% | -5\% | -11\% | -9\% | -13\% |
| 45. (-) | Brazil | Rio de Janeiro | 2.6 | 2.4 | 2.3 | 2.6 | 2.3 | 16\% | -13\% | -19\% | -6\% | -10\% |
| 46. (-) | Russia | Moscow | 1.8 | 1.5 | 1.5 | 2.0 | 2.1 | 15\% | 2\% | -5\% | 35\% | 29\% |
| 47. (-) | Indonesia | Jakarta | 1.6 | 1.3 | 1.5 | 1.6 | 1.7 | 12\% | 9\% | 2\% | 30\% | 24\% |
| 48. (-) | Philippines | Manila | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 11\% | 4\% | -3\% | 10\% | 5\% |

Source: www.ex

Figure 24: Basic Dinner at a Neighborhood Pub for Two

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3 -yr Cum Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Switzerland | Zurich | 78.6 | 74.7 | 86.8 | 73.7 | 72.3 | 127\% | -2\% | -7\% | -3\% | -16\% |
| 02. $(+3)$ | Denmark | Copenhagen | 64.2 | 47.7 | 71.2 | 55.7 | 60.2 | 106\% | -22\% | -26\% | 26\% | 9\% |
| 03. $(+4)$ | United States | San Francisco | 47.8 | 48.2 | 50.9 | 50.3 | 60.0 | 105\% | -1\% | -6\% | 25\% | 8\% |
| 04. (+10) | Netherlands | Amsterdam | 55.4 | 43.0 | 48.5 | 46.4 | 59.7 | 105\% | -4\% | -9\% | 39\% | 20\% |
| 05. (-1) | United States | New York City | 49.2 | 49.4 | 53.2 | 56.0 | 57.0 | 100\% | 5\% | 0\% | 15\% | 0\% |
| 06. $(+5)$ | France | Paris | 52.8 | 42.6 | 48.2 | 48.6 | 56.0 | 98\% | 1\% | -4\% | 32\% | 14\% |
| 07. (-1) | United Arab Emirates | Dubai | 43.8 | 61.0 | 44.4 | 51.2 | 53.9 | 95\% | 15\% | 10\% | -12\% | -23\% |
| 08. (-6) | Norway | Oslo | 90.5 | 67.0 | 61.8 | 63.0 | 52.7 | 93\% | 2\% | -3\% | -21\% | -32\% |
| 09. (-6) | Japan | Tokyo | 37.6 | 44.8 | 65.8 | 60.7 | 51.6 | 91\% | -8\% | -12\% | 15\% | 0\% |
| 10. (-2) | United States | Boston | 44.7 | 43.9 | 48.7 | 49.7 | 49.0 | 86\% | 2\% | -3\% | 12\% | -3\% |
| 11. $(+1)$ | United Kingdom | London | 50.5 | 45.9 | 48.2 | 48.5 | 48.8 | 86\% | 1\% | -4\% | 6\% | -8\% |
| 12. (-2) | Hong Kong | Hong Kong | 37.1 | 45.1 | 43.2 | 49.0 | 48.3 | 85\% | 13\% | 8\% | 7\% | -7\% |
| 13. $(+4)$ | Canada | Toronto | 45.4 | 39.3 | 42.4 | 40.9 | 46.6 | 82\% | -3\% | -8\% | 19\% | 3\% |
| 14. $(-5)$ | Belgium | Brussels | 53.6 | 49.5 | 51.0 | 49.2 | 46.3 | 81\% | -4\% | -8\% | -6\% | -19\% |
| 14. $(+1)$ | Ireland | Dublin | 44.2 | 41.5 | 43.6 | 46.0 | 46.3 | 81\% | 6\% | 0\% | 12\% | -3\% |
| 14. $(+4)$ | Finland | Helsinki | 50.3 | 36.4 | 44.1 | 40.7 | 46.3 | 81\% | -8\% | -12\% | 27\% | 10\% |
| 17. (-1) | United States | Chicago | 40.0 | 43.6 | 44.5 | 43.9 | 46.0 | 81\% | -1\% | -6\% | 6\% | -9\% |
| 18. $(+7)$ | New Zealand | Auckland | 41.7 | 38.6 | 37.0 | 36.6 | 45.2 | 79\% | -1\% | -6\% | 17\% | 2\% |
| 19. (-6) | Sweden | Stockholm | 59.9 | 37.5 | 59.6 | 46.5 | 44.7 | 78\% | -22\% | -26\% | 19\% | 3\% |
| 20. $(+4)$ | United Kingdom | Edinburgh | 38.4 | 36.2 | 40.6 | 36.6 | 44.6 | 78\% | -10\% | -14\% | 23\% | 7\% |
| 21. (-1) | Australia | Melbourne | 44.2 | 37.0 | 40.4 | 38.7 | 43.9 | 77\% | -4\% | -9\% | 19\% | 3\% |
| 22. (-1) | Italy | Milan | 47.9 | 42.8 | 50.1 | 38.6 | 43.9 | 77\% | -23\% | -27\% | 3\% | -11\% |
| 23. $(+6)$ | Canada | Vancouver | 38.0 | 39.4 | 37.8 | 35.3 | 40.4 | 71\% | -7\% | -11\% | 2\% | -11\% |
| 24. (+7) | Austria | Vienna | 39.3 | 35.8 | 36.9 | 34.7 | 40.2 | 71\% | -6\% | -11\% | 12\% | -3\% |
| 24. (+8) | Germany | Frankfurt | 52.4 | 34.9 | 33.3 | 34.0 | 40.2 | 71\% | 2\% | -3\% | 15\% | 0\% |
| 26. (-4) | Australia | Sydney | 42.7 | 35.6 | 35.7 | 38.3 | 40.1 | 70\% | 7\% | 2\% | 13\% | -2\% |
| 27. (-8) | Singapore | Singapore | 43.4 | 43.2 | 43.2 | 40.2 | 39.1 | 69\% | -7\% | -12\% | -9\% | -22\% |
| 28. $(+5)$ | Spain | Madrid | 42.4 | 39.4 | 35.5 | 31.5 | 39.0 | 68\% | -11\% | -16\% | -1\% | -14\% |
| 29. $(+5)$ | Greece | Athens | 38.8 | 27.9 | 34.8 | 30.5 | 37.8 | 66\% | -12\% | -17\% | 35\% | 17\% |
| 30. (-) | New Zealand | Wellington | 40.5 | 38.3 | 38.9 | 35.0 | 36.7 | 64\% | -10\% | -14\% | -4\% | -17\% |
| 31. (+7) | Portugal | Lisbon | 39.5 | 26.8 | 30.6 | 25.3 | 35.3 | 62\% | -17\% | -21\% | 32\% | 14\% |
| 32. (-4) | Brazil | Rio de Janeiro | 35.0 | 35.4 | 29.8 | 35.5 | 34.1 | 60\% | 19\% | 13\% | -4\% | -17\% |
| 33. $(+9)$ | South Africa | Johannesburg | 21.9 | 23.9 | 20.1 | 20.5 | 31.7 | 56\% | 2\% | -3\% | 33\% | 15\% |
| 34. (+1) | Germany | Berlin | 36.4 | 32.8 | 28.4 | 28.2 | 31.7 | 56\% | -1\% | -6\% | -3\% | -16\% |
| 35. (-8) | Brazil | Sao Paulo | 40.9 | 33.7 | 29.6 | 35.8 | 31.6 | 55\% | 21\% | 15\% | -6\% | -19\% |
| 36. (-13) | Russia | Moscow | 52.1 | 35.7 | 30.5 | 38.0 | 30.9 | 54\% | 25\% | 19\% | -14\% | -25\% |
| 37. (-11) | China | Shanghai | 40.4 | 37.9 | 38.6 | 36.3 | 26.1 | 46\% | -6\% | -11\% | -31\% | -40\% |
| 38. (+2) | South Africa | Cape Town | 17.8 | 23.5 | 19.7 | 22.1 | 25.4 | 45\% | 12\% | 6\% | 8\% | -6\% |
| 39. (-3) | Mexico | Mexico City | 25.8 | 23.4 | 24.4 | 28.1 | 24.5 | 43\% | 15\% | 10\% | 5\% | -9\% |
| 40. (+1) | Turkey | Istanbul | 26.5 | 20.9 | 27.1 | 21.8 | 23.2 | 41\% | -20\% | -24\% | 11\% | -4\% |
| 41. $(-2)$ | India | Bangalore | 18.7 | 19.0 | 21.4 | 22.1 | 21.6 | 38\% | 3\% | -2\% | 14\% | -1\% |
| 42. $(+1)$ | India | New Delhi | 21.0 | 25.8 | 25.4 | 19.8 | 21.4 | 38\% | -22\% | -26\% | -17\% | -28\% |
| 43. (+2) | Czech Republic | Prague | 20.3 | 17.0 | 16.1 | 18.6 | 21.3 | 37\% | 16\% | 10\% | 25\% | 8\% |
| 44. (-7) | India | Mumbai | 19.0 | 14.9 | 21.4 | 25.5 | 20.1 | 35\% | 19\% | 13\% | 35\% | 17\% |
| 45. (-1) | Poland | Warsaw | 22.5 | 17.8 | 18.7 | 19.1 | 19.9 | 35\% | 2\% | -3\% | 12\% | -3\% |
| 46. (-) | Malaysia | Kuala Lumpur | 27.2 | 21.9 | 19.5 | 17.9 | 19.4 | 34\% | -8\% | -13\% | -11\% | -23\% |
| 47. (+1) | Indonesia | Jakarta | 24.6 | 26.6 | 20.8 | 17.4 | 18.3 | 32\% | -16\% | -20\% | -31\% | -40\% |
| 48. $(-1)$ | Philippines | Manila | 23.2 | 25.9 | 21.5 | 17.8 | 14.9 | 26\% | -17\% | -21\% | -43\% | -50\% |

Source. www expatan

Figure 25: Full Course Dinner for Two at an Italian Restaurant

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3-yr Cum Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (+2) | Denmark | Copenhagen | 135.8 | 99.1 | 138.5 | 120.3 | 125.4 | 105\% | 4\% | 0\% | 27\% | 15\% |
| 02. $(+3)$ | Switzerland | Zurich | 151.4 | 116.4 | 136.6 | 109.9 | 121.1 | 101\% | 10\% | 6\% | 4\% | -6\% |
| 03. (+1) | United States | New York City | 114.0 | 108.8 | 125.0 | 115.4 | 120.0 | 100\% | 4\% | 0\% | 10\% | 0\% |
| 04. (-3) | Norway | Oslo | 186.4 | 121.2 | 115.1 | 129.6 | 119.7 | 100\% | -8\% | -11\% | -1\% | -10\% |
| 05. (-3) | Hong Kong | Hong Kong | 149.6 | 86.0 | 121.9 | 124.9 | 117.9 | 98\% | -6\% | -9\% | 37\% | 24\% |
| 06. (-) | United States | San Francisco | 105.2 | 116.9 | 98.2 | 98.2 | 115.0 | 96\% | 17\% | 13\% | -2\% | -11\% |
| 07. (-) | United Arab Emirates | Dubai | 112.7 | 130.1 | 135.9 | 96.1 | 114.3 | 95\% | 19\% | 14\% | -12\% | -20\% |
| 08. (+2) | Finland | Helsinki | 143.7 | 82.4 | 101.2 | 94.6 | 106.0 | 88\% | 12\% | 8\% | 29\% | 17\% |
| 09. (+2) | United States | Boston | 92.7 | 67.0 | 107.9 | 89.9 | 102.0 | 85\% | 13\% | 9\% | 52\% | 38\% |
| 10. $(+2)$ | Japan | Tokyo | 67.0 | 59.2 | 130.0 | 86.2 | 100.9 | 84\% | 17\% | 13\% | 70\% | 55\% |
| 11. $(+4)$ | Netherlands | Amsterdam | 89.3 | 69.1 | 83.9 | 84.1 | 90.2 | 75\% | 7\% | 3\% | 31\% | 18\% |
| 12. (+12) | France | Paris | 86.2 | 66.5 | 82.1 | 72.3 | 88.9 | 74\% | 23\% | 18\% | 34\% | 21\% |
| 13. $(-4)$ | Singapore | Singapore | 132.4 | 113.7 | 106.1 | 94.7 | 88.1 | 73\% | -7\% | -11\% | -23\% | -30\% |
| 14. $(+3)$ | United Kingdom | London | 106.9 | 85.3 | 104.5 | 83.4 | 87.8 | 73\% | 5\% | 1\% | 3\% | -7\% |
| 15. (-7) | Sweden | Stockholm | 138.2 | 96.8 | 106.3 | 94.8 | 84.7 | 71\% | -11\% | -14\% | -12\% | -21\% |
| 16. $(+6)$ | United States | Chicago | 88.9 | 106.0 | 101.9 | 75.4 | 84.0 | 70\% | 11\% | 7\% | -21\% | -28\% |
| 17. $(-4)$ | Australia | Sydney | 106.4 | 85.8 | 80.7 | 84.7 | 82.5 | 69\% | -3\% | -6\% | -4\% | -13\% |
| 18. (+1) | Canada | Toronto | 103.6 | 81.7 | 87.1 | 80.2 | 82.4 | 69\% | 3\% | -1\% | 1\% | -9\% |
| 18. $(+8)$ | Canada | Vancouver | 87.9 | 83.8 | 91.5 | 69.8 | 82.4 | 69\% | 18\% | 13\% | -2\% | -11\% |
| 20. (-) | Ireland | Dublin | 94.5 | 80.1 | 85.3 | 78.6 | 81.6 | 68\% | 4\% | 0\% | 2\% | -8\% |
| 21. (-) | Italy | Milan | 104.0 | 83.0 | 83.8 | 75.9 | 80.4 | 67\% | 6\% | 2\% | -3\% | -12\% |
| 22. (-4) | Belgium | Brussels | 91.6 | 72.9 | 81.6 | 80.5 | 79.2 | 66\% | -2\% | -5\% | 9\% | -2\% |
| 23. (-9) | Russia | Moscow | 104.3 | 75.0 | 70.9 | 84.6 | 75.1 | 63\% | -11\% | -15\% | 0\% | -9\% |
| 24. $(+1)$ | Australia | Melbourne | 98.5 | 85.3 | 79.8 | 72.2 | 69.6 | 58\% | -4\% | -7\% | -18\% | -26\% |
| 25. (+2) | New Zealand | Auckland | 101.2 | 84.3 | 84.0 | 69.7 | 68.5 | 57\% | -2\% | -6\% | -19\% | -26\% |
| 26. $(+5)$ | United Kingdom | Edinburgh | 86.5 | 70.3 | 67.7 | 61.6 | 68.3 | 57\% | 11\% | 7\% | -3\% | -12\% |
| 27. (-4) | China | Shanghai | 97.5 | 65.2 | 90.5 | 74.9 | 67.7 | 56\% | -10\% | -13\% | 4\% | -6\% |
| 28. $(+5)$ | Spain | Madrid | 75.7 | 53.5 | 58.1 | 55.8 | 65.8 | 55\% | 18\% | 13\% | 23\% | 12\% |
| 29. $(+5)$ | Greece | Athens | 73.6 | 51.3 | 60.5 | 53.6 | 64.6 | 54\% | 20\% | 16\% | 26\% | 14\% |
| 30. $(+5)$ | Austria | Vienna | 71.5 | 67.9 | 73.3 | 53.5 | 59.7 | 50\% | 12\% | 7\% | -12\% | -20\% |
| 31. (-1) | Brazil | Sao Paulo | 80.8 | 67.6 | 63.8 | 63.4 | 59.4 | 50\% | -6\% | -10\% | -12\% | -20\% |
| 32. (-16) | New Zealand | Wellington | 85.9 | 79.4 | 93.8 | 84.0 | 58.6 | 49\% | -30\% | -33\% | -26\% | -33\% |
| 33. (-4) | Brazil | Rio de Janeiro | 91.9 | 71.7 | 63.5 | 66.0 | 56.8 | 47\% | -14\% | -17\% | -21\% | -28\% |
| 34. $(+6)$ | Portugal | Lisbon | 59.0 | 45.9 | 44.9 | 44.3 | 56.0 | 47\% | 27\% | 22\% | 22\% | 11\% |
| 35. (-7) | Germany | Frankfurt | 80.3 | 55.7 | 79.7 | 67.8 | 54.8 | 46\% | -19\% | -22\% | -2\% | -11\% |
| 36. $(+3)$ | Germany | Berlin | 64.3 | 55.7 | 55.2 | 47.9 | 50.0 | 42\% | 4\% | 0\% | -10\% | -19\% |
| 37. (+10) | South Africa | Johannesburg | 44.4 | 41.8 | 36.1 | 34.8 | 47.8 | 40\% | 37\% | 32\% | 14\% | 4\% |
| 38. (-6) | Turkey | Istanbul | 79.3 | 61.9 | 75.9 | 56.1 | 47.3 | 39\% | -16\% | -19\% | -24\% | -31\% |
| 39. (-2) | Mexico | Mexico City | 62.5 | 46.9 | 50.5 | 52.8 | 44.5 | 37\% | -16\% | -19\% | -5\% | -14\% |
| 40. (+5) | South Africa | Cape Town | 39.9 | 44.2 | 34.0 | 37.7 | 42.3 | 35\% | 12\% | 8\% | -4\% | -13\% |
| 41. (-3) | Malaysia | Kuala Lumpur | 74.8 | 63.5 | 65.9 | 49.6 | 42.2 | 35\% | -15\% | -18\% | -34\% | -40\% |
| 42. $(+4)$ | Czech Republic | Prague | 39.2 | 34.4 | 33.9 | 36.9 | 42.1 | 35\% | 14\% | 10\% | 23\% | 11\% |
| 43. (-7) | Indonesia | Jakarta | 68.2 | 41.8 | 64.4 | 53.4 | 40.4 | 34\% | -24\% | -27\% | -3\% | -12\% |
| 44. (-3) | India | New Delhi | 46.9 | 61.1 | 52.6 | 41.1 | 39.2 | 33\% | -5\% | -8\% | -36\% | -42\% |
| 45. (-2) | Poland | Warsaw | 54.6 | 39.1 | 39.5 | 38.0 | 36.9 | 31\% | -3\% | -7\% | -6\% | -15\% |
| 46. (-4) | India | Mumbai | 41.7 | 55.2 | 51.2 | 39.0 | 33.5 | 28\% | -14\% | -17\% | -39\% | -45\% |
| 47. (-3) | Philippines | Manila | 52.6 | 58.1 | 53.1 | 37.8 | 30.8 | 26\% | -18\% | -22\% | -47\% | -52\% |
| 48. (-) | India | Bangalore | 38.1 | 38.9 | 41.1 | 34.7 | 29.3 | 24\% | -16\% | -19\% | -25\% | -32\% |
| Source: www | .expatisan.com |  |  |  |  |  |  |  |  |  |  |  |

Figure 26: Hourly Rate for Cleaning

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (+1) | Finland | Helsinki | 42 | 32 | 29 | 30 | 37 | 152\% | 24\% | 44\% | 16\% | 30\% |
| 02. $(+1)$ | Norway | Oslo | 34 | 29 | 30 | 29 | 35 | 145\% | 19\% | 39\% | 18\% | 33\% |
| 03. (-2) | Switzerland | Zurich | 36 | 29 | 31 | 32 | 32 | 131\% | -2\% | 14\% | 8\% | 21\% |
| 04. (+2) | Sweden | Stockholm | 33 | 25 | 31 | 28 | 31 | 130\% | 13\% | 32\% | 25\% | 40\% |
| 05. (+4) | United States | Boston | 46 | 27 | 23 | 24 | 28 | 117\% | 17\% | 36\% | 4\% | 17\% |
| 06. (+4) | Australia | Sydney | 29 | 23 | 22 | 23 | 26 | 107\% | 10\% | 28\% | 13\% | 28\% |
| 07. (-) | United States | San Francisco | 28 | 26 | 29 | 27 | 25 | 104\% | -7\% | 8\% | -4\% | 8\% |
| 08. (-) | Denmark | Copenhagen | 27 | 20 | 30 | 25 | 25 | 103\% | 0\% | 17\% | 26\% | 42\% |
| 09. (-5) | Japan | Tokyo | 20 | 19 | 33 | 29 | 25 | 103\% | -14\% | 1\% | 29\% | 46\% |
| 10. (-5) | United States | New York City | 25 | 27 | 27 | 28 | 24 | 100\% | -14\% | 0\% | -11\% | 0\% |
| 11. (+2) | Canada | Vancouver | 23 | 18 | 17 | 18 | 23 | 97\% | 27\% | 48\% | 29\% | 45\% |
| 12. $(-)$ | United States | Chicago | 27 | 16 | 21 | 21 | 23 | 96\% | 10\% | 28\% | 44\% | 62\% |
| 13. (-2) | Australia | Melbourne | 26 | 20 | 24 | 22 | 22 | 91\% | 0\% | 17\% | 8\% | 21\% |
| 14. $(+5)$ | New Zealand | Wellington | 25 | 19 | 17 | 15 | 18 | 77\% | 20\% | 40\% | -3\% | 9\% |
| 15. $(-1)$ | New Zealand | Auckland | 18 | 15 | 16 | 17 | 18 | 74\% | 2\% | 19\% | 16\% | 31\% |
| 16. (+1) | Netherlands | Amsterdam | 17 | 15 | 17 | 15 | 17 | 71\% | 11\% | 30\% | 12\% | 26\% |
| 17. $(-1)$ | United Kingdom | London | 17 | 17 | 16 | 15 | 17 | 70\% | 9\% | 27\% | 0\% | 13\% |
| 18. (-3) | Canada | Toronto | 20 | 16 | 17 | 16 | 16 | 68\% | 1\% | 18\% | 5\% | 18\% |
| 19. $(-2)$ | France | Paris | 18 | 14 | 16 | 15 | 16 | 66\% | 3\% | 21\% | 12\% | 26\% |
| 19. $(+1)$ | Ireland | Dublin | 17 | 13 | 14 | 14 | 16 | 66\% | 11\% | 30\% | 21\% | 37\% |
| 19. $(+1)$ | Germany | Frankfurt | 17 | 13 | 15 | 14 | 16 | 66\% | 11\% | 30\% | 21\% | 37\% |
| 19. $(+3)$ | Austria | Vienna | 14 | 11 | 14 | 13 | 16 | 66\% | 21\% | 41\% | 46\% | 64\% |
| 19. $(+3)$ | Germany | Berlin | 14 | 12 | 12 | 13 | 16 | 66\% | 21\% | 41\% | 32\% | 49\% |
| 24. (-) | United Kingdom | Edinburgh | 27 | 24 | 16 | 13 | 14 | 58\% | 9\% | 27\% | -43\% | -35\% |
| 25. (+3) | Italy | Milan | 14 | 10 | 11 | 11 | 13 | 56\% | 22\% | 43\% | 37\% | 54\% |
| 26. $(-1)$ | Singapore | Singapore | 13 | 11 | 11 | 12 | 13 | 53\% | 5\% | 22\% | 14\% | 28\% |
| 27. $(+1)$ | Belgium | Brussels | 12 | 10 | 11 | 11 | 12 | 51\% | 11\% | 30\% | 24\% | 40\% |
| 27. (-1) | Spain | Madrid | 14 | 11 | 11 | 12 | 12 | 51\% | 1\% | 18\% | 12\% | 26\% |
| 29. $(+17)$ | India | Mumbai | 2 | 3 | 5 | 2 | 12 | 51\% | 418\% | 504\% | 320\% | 373\% |
| 30. (-3) | Russia | Moscow | 16 | 10 | 6 | 11 | 12 | 50\% | 7\% | 25\% | 23\% | 38\% |
| 31. (-) | United Arab Emirates | Dubai | 13 | 10 | 9 | 9 | 11 | 45\% | 18\% | 37\% | 5\% | 18\% |
| 32. $(+11)$ | India | New Delhi | 2 | 1 | 2 | 3 | 10 | 44\% | 222\% | 276\% | 765\% | 873\% |
| 33. $(-1)$ | Portugal | Lisbon | 9 | 7 | 8 | 8 | 9 | 36\% | 7\% | 24\% | 17\% | 32\% |
| 34. (-) | Greece | Athens | 9 | 7 | 7 | 7 | 8 | 35\% | 18\% | 38\% | 21\% | 36\% |
| 35. (+1) | Poland | Warsaw | 10 | 5 | 4 | 5 | 8 | 34\% | 48\% | 73\% | 58\% | 77\% |
| 36. $(-3)$ | Czech Republic | Prague | 7 | 5 | 6 | 7 | 8 | 34\% | 12\% | 31\% | 74\% | 95\% |
| 37. (-7) | Hong Kong | Hong Kong | 9 | 8 | 9 | 9 | 8 | 33\% | -14\% | 0\% | 2\% | 15\% |
| 38. $(+3)$ | India | Bangalore | 2 | 1 | 4 | 4 | 6 | 27\% | 75\% | 104\% | 414\% | 479\% |
| 39. $(+5)$ | Philippines | Manila | 3 | 4 | 5 | 3 | 6 | 23\% | 74\% | 103\% | 40\% | 58\% |
| 40. (-) | Malaysia | Kuala Lumpur | 7 | 5 | 5 | 4 | 6 | 23\% | 37\% | 59\% | 6\% | 19\% |
| 41. (+4) | Mexico | Mexico City | 5 | 2 | 3 | 2 | 5 | 23\% | 120\% | 157\% | 134\% | 163\% |
| 42. $(-5)$ | Brazil | Rio de Janeiro | 15 | 5 | 4 | 5 | 5 | 23\% | 1\% | 18\% | 7\% | 21\% |
| 43. (-8) | Turkey | Istanbul | 10 | 6 | 7 | 6 | 5 | 22\% | -13\% | 2\% | -9\% | 2\% |
| 44. (-5) | China | Shanghai | 4 | 5 | 4 | 4 | 5 | 21\% | 20\% | 40\% | -2\% | 10\% |
| 45. (-8) | Brazil | Sao Paulo | 8 | 5 | 4 | 5 | 5 | 20\% | -10\% | 5\% | 3\% | 16\% |
| 46. $(+2)$ | South Africa | Cape Town | 2 | 2 | 2 | 2 | 4 | 18\% | 106\% | 141\% | 114\% | 140\% |
| 47. (-) | South Africa | Johannesburg | 4 | 2 | 2 | 2 | 4 | 18\% | 89\% | 121\% | 150\% | 181\% |
| 48. (-6) | Indonesia | Jakarta | 3 | 2 | 2 | 4 | 4 | 17\% | 12\% | 31\% | 61\% | 81\% |

Source: www.expatisan.com

Figure 27: 1 Month of Internet ( 8 Mbps )

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | 3 -yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | United Arab Emirates | Dubai | 76 | 81 | 84 | 87 | 85 | 182\% | -2\% | 17\% | 5\% | 19\% |
| 02. (+6) | South Africa | Johannesburg | 46 | 53 | 42 | 50 | 54 | 115\% | 9\% | 30\% | 1\% | 14\% |
| 03. (+3) | New Zealand | Wellington | 59 | 59 | 44 | 50 | 54 | 114\% | 7\% | 28\% | -9\% | 2\% |
| 04. (+2) | New Zealand | Auckland | 53 | 49 | 46 | 50 | 52 | 110\% | 3\% | 23\% | 4\% | 18\% |
| 05. (-) | United States | San Francisco | 48 | 53 | 61 | 54 | 50 | 106\% | -7\% | 10\% | -6\% | 6\% |
| 06. (+3) | Ireland | Dublin | 47 | 45 | 41 | 48 | 49 | 104\% | 1\% | 21\% | 9\% | 23\% |
| 07. (-4) | South Africa | Cape Town | 59 | 48 | 48 | 57 | 48 | 101\% | -17\% | -1\% | -1\% | 11\% |
| 08. (-4) | United States | New York City | 47 | 53 | 56 | 56 | 47 | 100\% | -16\% | 0\% | -11\% | 0\% |
| 09. (+7) | Norway | Oslo | 67 | 37 | 38 | 41 | 47 | 100\% | 14\% | 36\% | 27\% | 43\% |
| 10. $(+1)$ | Australia | Melbourne | 52 | 45 | 48 | 46 | 47 | 100\% | 2\% | 22\% | 3\% | 17\% |
| 11. (-9) | United States | Boston | 56 | 57 | 57 | 65 | 45 | 96\% | -31\% | -18\% | -21\% | -11\% |
| 11. $(+1)$ | United States | Chicago | 45 | 51 | 54 | 44 | 45 | 96\% | 2\% | 22\% | -12\% | -1\% |
| 13. (-) | Australia | Sydney | 54 | 43 | 46 | 44 | 44 | 93\% | 0\% | 20\% | 2\% | 15\% |
| 14. $(-4)$ | Switzerland | Zurich | 58 | 46 | 42 | 47 | 42 | 89\% | -12\% | 5\% | -10\% | 2\% |
| 15. $(-1)$ | Canada | Vancouver | 38 | 38 | 42 | 41 | 41 | 88\% | 0\% | 19\% | 9\% | 23\% |
| 16. $(+1)$ | Belgium | Brussels | 43 | 40 | 37 | 39 | 40 | 86\% | 2\% | 22\% | 0\% | 13\% |
| 17. (+1) | Japan | Tokyo | 40 | 31 | 36 | 38 | 39 | 84\% | 3\% | 22\% | 27\% | 44\% |
| 18. (+5) | Netherlands | Amsterdam | 37 | 28 | 27 | 30 | 39 | 83\% | 32\% | 57\% | 38\% | 55\% |
| 18. (+2) | Spain | Madrid | 48 | 35 | 38 | 36 | 39 | 83\% | 8\% | 29\% | 12\% | 26\% |
| 20. (-6) | Canada | Toronto | 45 | 45 | 41 | 41 | 38 | 81\% | -8\% | 10\% | -16\% | -5\% |
| 21. (-2) | Philippines | Manila | 52 | 57 | 53 | 38 | 36 | 77\% | -4\% | 14\% | -36\% | -28\% |
| 22. (+5) | United Kingdom | Edinburgh | 37 | 32 | 32 | 27 | 35 | 74\% | 29\% | 54\% | 9\% | 23\% |
| 23. (+3) | Germany | Frankfurt | 37 | 25 | 28 | 27 | 34 | 73\% | 25\% | 49\% | 36\% | 54\% |
| 23. $(+5)$ | Portugal | Lisbon | 30 | 25 | 25 | 26 | 34 | 73\% | 30\% | 55\% | 36\% | 54\% |
| 25. $(-3)$ | Malaysia | Kuala Lumpur | 50 | 43 | 38 | 32 | 33 | 70\% | 4\% | 24\% | -24\% | -14\% |
| 26. $(-5)$ | Singapore | Singapore | 35 | 35 | 34 | 33 | 32 | 69\% | -2\% | 17\% | -8\% | 3\% |
| 27. (+8) | Germany | Berlin | 30 | 25 | 25 | 24 | 30 | 65\% | 26\% | 51\% | 22\% | 37\% |
| 28. (+5) | Denmark | Copenhagen | 37 | 28 | 24 | 25 | 30 | 64\% | 19\% | 42\% | 6\% | 19\% |
| 29. (-4) | United Kingdom | London | 30 | 33 | 29 | 28 | 29 | 62\% | 4\% | 23\% | -12\% | -1\% |
| 30. (-) | Sweden | Stockholm | 33 | 32 | 31 | 26 | 29 | 61\% | 9\% | 29\% | -11\% | 1\% |
| 31. $(-3)$ | France | Paris | 37 | 28 | 30 | 26 | 28 | 60\% | 7\% | 27\% | -1\% | 12\% |
| 31. $(+1)$ | Italy | Milan | 37 | 28 | 29 | 25 | 28 | 60\% | 11\% | 33\% | -1\% | 12\% |
| 33. $(-2)$ | Indonesia | Jakarta | 36 | 31 | 30 | 25 | 25 | 53\% | -3\% | 16\% | -20\% | -9\% |
| 34. (+2) | Brazil | Rio de Janeiro | 45 | 29 | 21 | 24 | 24 | 52\% | 4\% | 24\% | -15\% | -4\% |
| 35. (+3) | Greece | Athens | 25 | 20 | 23 | 21 | 24 | 52\% | 17\% | 40\% | 24\% | 40\% |
| 36. (-12) | Hong Kong | Hong Kong | 25 | 25 | 26 | 29 | 24 | 51\% | -16\% | 0\% | -2\% | 10\% |
| 37. (-) | Austria | Vienna | 28 | 20 | 23 | 23 | 22 | 47\% | -5\% | 14\% | 12\% | 26\% |
| 38. $(-4)$ | Brazil | Sao Paulo | 39 | 26 | 21 | 24 | 21 | 45\% | -12\% | 5\% | -20\% | -9\% |
| 39. (+1) | Mexico | Mexico City | 36 | 28 | 23 | 19 | 21 | 45\% | 8\% | 29\% | -24\% | -15\% |
| 40. (+4) | Finland | Helsinki | 26 | 18 | 19 | 18 | 19 | 41\% | 11\% | 33\% | 5\% | 19\% |
| 41. (+2) | Czech Republic | Prague | 23 | 16 | 18 | 18 | 18 | 38\% | 0\% | 19\% | 11\% | 25\% |
| 42. $(-3)$ | China | Shanghai | 25 | 20 | 19 | 20 | 17 | 37\% | -13\% | 4\% | -14\% | -3\% |
| 43. $(-2)$ | India | Mumbai | 15 | 16 | 20 | 18 | 14 | 29\% | -25\% | -10\% | -14\% | -3\% |
| 44. (+1) | India | Bangalore | 22 | 19 | 17 | 16 | 14 | 29\% | -16\% | 0\% | -27\% | -17\% |
| 45. (+1) | Turkey | Istanbul | 25 | 20 | 19 | 15 | 13 | 27\% | -16\% | 0\% | -34\% | -25\% |
| 46. $(-4)$ | India | New Delhi | 20 | 23 | 19 | 18 | 12 | 26\% | -34\% | -21\% | -48\% | -41\% |
| 47. (-) | Poland | Warsaw | 18 | 13 | 12 | 11 | 9 | 19\% | -20\% | -4\% | -34\% | -25\% |
| 48. (-) | Russia | Moscow | 11 | 8 | 6 | 7 | 7 | 16\% | -1\% | 18\% | -4\% | 9\% |

Source: www.expatisan.com

Figure 28: Cappuccino in Expat Area of the City

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change (\%) Rel. To NY | 3-yr Cum Change (\%) | $3-y r$ Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. ( +2 ) | Denmark | Copenhagen | 6 | 6 | 7 | 6 | 7 | 131\% | 17\% | 8\% | 18\% | 6\% |
| 02. (+7) | France | Paris | 6 | 5 | 5 | 5 | 6 | 115\% | 16\% | 7\% | 12\% | 1\% |
| 03. (-2) | Switzerland | Zurich | 6 | 5 | 6 | 6 | 6 | 114\% | -2\% | -10\% | 7\% | -4\% |
| 04. (-2) | Hong Kong | Hong Kong | 5 | 5 | 5 | 6 | 6 | 112\% | -3\% | -11\% | 17\% | 6\% |
| 05. (-1) | United Arab Emirates | Dubai | 5 | 5 | 6 | 5 | 5 | 109\% | 0\% | -8\% | 5\% | -5\% |
| 06. $(+1)$ | China | Shanghai | 6 | 5 | 5 | 5 | 5 | 107\% | 6\% | -3\% | 1\% | -9\% |
| 07. (+1) | Norway | Oslo | 7 | 5 | 5 | 5 | 5 | 105\% | 5\% | -3\% | 11\% | 0\% |
| 08. $(+3)$ | United States | Chicago | 4 | 5 | 5 | 5 | 5 | 104\% | 13\% | 4\% | 2\% | -8\% |
| 09. (+2) | United States | New York City | 4 | 5 | 5 | 5 | 5 | 100\% | 9\% | 0\% | 11\% | 0\% |
| 10. $(+6)$ | Finland | Helsinki | 6 | 4 | 4 | 4 | 5 | 100\% | 14\% | 5\% | 24\% | 12\% |
| 11. $(-1)$ | Singapore | Singapore | 6 | 5 | 5 | 5 | 5 | 96\% | 3\% | -5\% | -3\% | -12\% |
| 12. $(+1)$ | Sweden | Stockholm | 6 | 4 | 5 | 5 | 5 | 96\% | 5\% | -3\% | 9\% | -2\% |
| 13. $(-8)$ | United States | Boston | 4 | 4 | 5 | 5 | 5 | 92\% | -13\% | -20\% | 12\% | 1\% |
| 14. $(+3)$ | Greece | Athens | 5 | 4 | 4 | 4 | 5 | 90\% | 8\% | 0\% | 9\% | -2\% |
| 15. $(-1)$ | United States | San Francisco | 4 | 4 | 5 | 5 | 5 | 90\% | 0\% | -8\% | 7\% | -4\% |
| 16. $(-10)$ | Japan | Tokyo | 4 | 4 | 4 | 5 | 4 | 89\% | -16\% | -22\% | 24\% | 12\% |
| 17. $(+1)$ | United Kingdom | London | 5 | 4 | 4 | 4 | 4 | 89\% | 9\% | 0\% | 9\% | -2\% |
| 18. $(+1)$ | Austria | Vienna | 5 | 4 | 4 | 4 | 4 | 88\% | 11\% | 2\% | 9\% | -2\% |
| 19. $(+9)$ | Indonesia | Jakarta | 3 | 3 | 4 | 3 | 4 | 88\% | 28\% | 18\% | 46\% | 32\% |
| 20. (+7) | United Kingdom | Edinburgh | 5 | 4 | 4 | 3 | 4 | 81\% | 17\% | 7\% | 11\% | 0\% |
| 21. $(+5)$ | Netherlands | Amsterdam | 4 | 3 | 3 | 4 | 4 | 80\% | 15\% | 6\% | 23\% | 11\% |
| 22. $(+2)$ | Canada | Toronto | 4 | 4 | 3 | 4 | 4 | 79\% | 12\% | 3\% | 3\% | -8\% |
| 23. (-) | Ireland | Dublin | 4 | 3 | 4 | 4 | 4 | 78\% | 8\% | -1\% | 20\% | 8\% |
| 24. (-9) | Russia | Moscow | 6 | 5 | 4 | 4 | 4 | 77\% | -13\% | -20\% | -20\% | -28\% |
| 25. (-4) | Malaysia | Kuala Lumpur | 4 | 3 | 3 | 4 | 4 | 77\% | 5\% | -4\% | 14\% | 3\% |
| 26. $(+5)$ | Germany | Frankfurt | 4 | 3 | 3 | 3 | 4 | 76\% | 15\% | 6\% | 24\% | 12\% |
| 26. $(+17)$ | Portugal | Lisbon | 3 | 2 | 2 | 2 | 4 | 76\% | 57\% | 44\% | 93\% | 74\% |
| 28. $(+1)$ | Belgium | Brussels | 4 | 3 | 4 | 3 | 4 | 73\% | 8\% | -1\% | 16\% | 4\% |
| 28. $(+3)$ | Germany | Berlin | 4 | 3 | 3 | 3 | 4 | 73\% | 11\% | 2\% | 12\% | 1\% |
| 30. (-) | Canada | Vancouver | 4 | 4 | 3 | 3 | 4 | 73\% | 10\% | 2\% | 1\% | -9\% |
| 31. (-9) | India | New Delhi | 3 | 3 | 3 | 4 | 4 | 70\% | -4\% | -11\% | 23\% | 11\% |
| 32. $(+1)$ | New Zealand | Auckland | 4 | 3 | 3 | 3 | 3 | 69\% | 6\% | -2\% | -1\% | -11\% |
| 33. $(+5)$ | Australia | Melbourne | 4 | 3 | 3 | 3 | 3 | 65\% | 5\% | -3\% | 4\% | -6\% |
| 33. $(+3)$ | Australia | Sydney | 4 | 3 | 3 | 3 | 3 | 65\% | 3\% | -5\% | -1\% | -11\% |
| 35. (-) | New Zealand | Wellington | 4 | 3 | 3 | 3 | 3 | 64\% | -1\% | -8\% | -7\% | -16\% |
| 36. (+1) | Poland | Warsaw | 4 | 3 | 3 | 3 | 3 | 63\% | 2\% | -6\% | -9\% | -19\% |
| 37. (+6) | Spain | Madrid | 3 | 3 | 3 | 2 | 3 | 63\% | 32\% | 21\% | -3\% | -13\% |
| 38. (-13) | India | Mumbai | 2 | 3 | 3 | 4 | 3 | 63\% | -10\% | -17\% | 8\% | -2\% |
| 39. $(+6)$ | Czech Republic | Prague | 3 | 2 | 2 | 2 | 3 | 59\% | 28\% | 18\% | 36\% | 23\% |
| 40. (-6) | Philippines | Manila | 3 | 3 | 3 | 3 | 3 | 58\% | -9\% | -16\% | -3\% | -13\% |
| 41. (-) | Brazil | Sao Paulo | 3 | 2 | 2 | 3 | 3 | 57\% | 13\% | 4\% | 23\% | 10\% |
| 42. $(-3)$ | Turkey | Istanbul | 4 | 3 | 4 | 3 | 3 | 54\% | -13\% | -20\% | -19\% | -27\% |
| 43. (-3) | Mexico | Mexico City | 3 | 3 | 3 | 3 | 3 | 54\% | -2\% | -10\% | -2\% | -12\% |
| 44. (-24) | India | Bangalore | 2 | 3 | 3 | 4 | 2 | 50\% | -36\% | -41\% | -3\% | -13\% |
| 45. (-4) | Brazil | Rio de Janeiro | 3 | 2 | 2 | 3 | 2 | 45\% | -11\% | -18\% | -3\% | -13\% |
| 46. (-) | South Africa | Johannesburg | 2 | 2 | 2 | 2 | 2 | 45\% | 13\% | 4\% | 18\% | 6\% |
| 47. (-1) | South Africa | Cape Town | 2 | 2 | 2 | 2 | 2 | 42\% | 5\% | -3\% | 15\% | 3\% |
| 48. (-) | Italy | Milan | 2 | 2 | 2 | 2 | 2 | 39\% | 11\% | 2\% | 12\% | 1\% |
| Source: wwn | v.expatisan.com |  |  |  |  |  |  |  |  |  |  |  |

Figure 29: 1 Summer Dress in a High Street Store (Zara, H\&M or similar retailers)

|  | Country | City | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to NY | YoY Change (\%) | YoY Change <br> (\%) Rel. To <br> NY | 3-yr Cum Change (\%) | 3-yr Cum. Change (\%) Rel. To NY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (+3) | United Arab Emirates | Dubai | 62 | 58 | 63 | 58 | 61 | 142\% | 5\% | 8\% | 5\% | 14\% |
| 02. (+31) | South Africa | Johannesburg | 49 | 42 | 37 | 39 | 61 | 141\% | 56\% | 60\% | 45\% | 58\% |
| 03. (+3) | Australia | Sydney | 72 | 58 | 56 | 56 | 60 | 139\% | 7\% | 10\% | 3\% | 13\% |
| 04. $(+20)$ | Austria | Vienna | 42 | 44 | 37 | 42 | 57 | 133\% | 38\% | 41\% | 32\% | 44\% |
| 05. (+24) | Canada | Vancouver | 41 | 43 | 43 | 40 | 57 | 132\% | 43\% | 46\% | 33\% | 45\% |
| 06. (+2) | Brazil | Rio de Janeiro | 77 | 54 | 49 | 53 | 56 | 131\% | 5\% | 8\% | 4\% | 13\% |
| 07. (-4) | Russia | Moscow | 67 | 51 | 46 | 62 | 55 | 128\% | -11\% | -9\% | 8\% | 19\% |
| 08. (-1) | Switzerland | Zurich | 69 | 64 | 53 | 55 | 55 | 128\% | -1\% | 1\% | -14\% | -6\% |
| 09. (-7) | Brazil | Sao Paulo | 70 | 56 | 46 | 63 | 54 | 125\% | -15\% | -13\% | -4\% | 5\% |
| 10. $(+1)$ | Denmark | Copenhagen | 62 | 39 | 48 | 51 | 54 | 125\% | 5\% | 7\% | 36\% | 48\% |
| 11. (+2) | Norway | Oslo | 76 | 55 | 54 | 50 | 52 | 122\% | 5\% | 8\% | -4\% | 5\% |
| 12. (-11) | New Zealand | Wellington | 69 | 55 | 50 | 70 | 52 | 122\% | -25\% | -24\% | -4\% | 4\% |
| 13. (+26) | United Kingdom | Edinburgh | 76 | 44 | 45 | 37 | 50 | 117\% | 35\% | 38\% | 14\% | 25\% |
| 14. $(-2)$ | United States | Chicago | 38 | 44 | 45 | 50 | 50 | 116\% | 0\% | 2\% | 14\% | 24\% |
| 14. $(+1)$ | United States | San Francisco | 55 | 49 | 48 | 49 | 50 | 116\% | 2\% | 4\% | 2\% | 12\% |
| 16. $(+24)$ | Italy | Milan | 48 | 40 | 39 | 37 | 50 | 116\% | 34\% | 37\% | 24\% | 36\% |
| 17. (-7) | Australia | Melbourne | 69 | 51 | 52 | 51 | 50 | 116\% | -3\% | 0\% | -2\% | 7\% |
| 18. $(+1)$ | India | Mumbai | 38 | 44 | 49 | 44 | 49 | 113\% | 11\% | 13\% | 10\% | 20\% |
| 19. $(+5)$ | Finland | Helsinki | 64 | 34 | 34 | 42 | 49 | 113\% | 17\% | 20\% | 45\% | 58\% |
| 20. (-6) | South Africa | Cape Town | 43 | 43 | 34 | 49 | 49 | 113\% | -1\% | 2\% | 12\% | 23\% |
| 21. (-16) | New Zealand | Auckland | 78 | 60 | 49 | 57 | 47 | 108\% | -18\% | -16\% | -22\% | -15\% |
| 22. (-13) | China | Shanghai | 48 | 53 | 37 | 52 | 46 | 108\% | -12\% | -10\% | -12\% | -4\% |
| 23. (+21) | Greece | Athens | 42 | 32 | 33 | 35 | 46 | 108\% | 32\% | 35\% | 47\% | 60\% |
| 24. (+4) | United Kingdom | London | 60 | 49 | 45 | 40 | 46 | 107\% | 16\% | 18\% | -5\% | 3\% |
| 25. (-8) | Singapore | Singapore | 56 | 43 | 44 | 45 | 45 | 105\% | 0\% | 2\% | 6\% | 15\% |
| 26. $(+14)$ | Germany | Berlin | 51 | 32 | 36 | 37 | 45 | 105\% | 21\% | 24\% | 43\% | 56\% |
| 27. (-3) | Belgium | Brussels | 48 | 39 | 41 | 42 | 44 | 102\% | 5\% | 8\% | 12\% | 22\% |
| 28. $(-8)$ | United States | New York City | 44 | 47 | 42 | 44 | 43 | 100\% | -2\% | 0\% | -9\% | 0\% |
| 29. (-8) | France | Paris | 58 | 38 | 44 | 43 | 43 | 99\% | 0\% | 2\% | 12\% | 22\% |
| 29. ( +6 ) | Germany | Frankfurt | 59 | 38 | 42 | 38 | 43 | 99\% | 11\% | 14\% | 12\% | 22\% |
| 31. (-8) | India | New Delhi | 52 | 48 | 53 | 42 | 42 | 98\% | 1\% | 3\% | -11\% | -3\% |
| 32. $(-5)$ | Sweden | Stockholm | 73 | 44 | 46 | 40 | 42 | 98\% | 5\% | 7\% | -5\% | 4\% |
| 33. (+12) | Malaysia | Kuala Lumpur | 50 | 37 | 37 | 32 | 42 | 98\% | 29\% | 32\% | 15\% | 25\% |
| 34. (-3) | Netherlands | Amsterdam | 53 | 36 | 39 | 39 | 40 | 94\% | 2\% | 4\% | 12\% | 22\% |
| 34. (-18) | Ireland | Dublin | 48 | 37 | 47 | 47 | 40 | 94\% | -15\% | -13\% | 9\% | 19\% |
| 36. (-) | United States | Boston | 34 | 36 | 39 | 38 | 40 | 93\% | 5\% | 8\% | 11\% | 21\% |
| 37. (-5) | Czech Republic | Prague | 36 | 34 | 47 | 39 | 40 | 93\% | 2\% | 4\% | 18\% | 29\% |
| 38. (-16) | Canada | Toronto | 39 | 34 | 34 | 43 | 40 | 92\% | -7\% | -5\% | 18\% | 29\% |
| 39. (-2) | Poland | Warsaw | 59 | 38 | 39 | 38 | 39 | 91\% | 4\% | 6\% | 4\% | 14\% |
| 40. $(+7)$ | Portugal | Lisbon | 43 | 29 | 35 | 31 | 37 | 85\% | 19\% | 22\% | 24\% | 36\% |
| 40. (+7) | Spain | Madrid | 44 | 32 | 32 | 31 | 37 | 85\% | 19\% | 22\% | 16\% | 27\% |
| 42. (-24) | India | Bangalore | 37 | 43 | 47 | 45 | 36 | 85\% | -18\% | -16\% | -15\% | -7\% |
| 43. (-13) | Japan | Tokyo | 62 | 37 | 40 | 40 | 36 | 84\% | -9\% | -6\% | -4\% | 5\% |
| 44. (+2) | Hong Kong | Hong Kong | 39 | 37 | 37 | 32 | 36 | 83\% | 11\% | 14\% | -2\% | 7\% |
| 45. (-7) | Mexico | Mexico City | 50 | 44 | 38 | 37 | 36 | 83\% | -4\% | -2\% | -19\% | -11\% |
| 46. (-4) | Turkey | Istanbul | 40 | 35 | 36 | 37 | 32 | 74\% | -14\% | -12\% | -8\% | 1\% |
| 47. (-4) | Philippines | Manila | 37 | 36 | 37 | 36 | 30 | 70\% | -17\% | -15\% | -16\% | -8\% |
| 48. (-14) | Indonesia | Jakarta | 39 | 35 | 37 | 39 | 28 | 66\% | -26\% | -25\% | -19\% | -11\% |

Source www expatisa

Figure 30: Annual Subscription of the Economist

|  | Country | 2014 | 2015 | 2016 | 2017 | 2018 | Relative to US | YoY Change (\%) | YoY Change (\%) Rel. To US | 3-yr Cum Change (\%) | 3-yr Cum Change (\%) Rel. To US |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | USD | USD | USD | USD | USD |  |  |  |  |  |
| 01. (+1) | China | 64.0 | 403.6 | 590.4 | 596.6 | 637.8 | 159\% | 7\% | 10\% | 58\% | 62\% |
| 02. $(-1)$ | Japan | 417.6 | 516.4 | 567.1 | 623.7 | 633.6 | 158\% | 2\% | 4\% | 23\% | 26\% |
| 03. (na) | United Arab Emirates | N/A | N/A | N/A | N/A | 607.0 | 152\% | NA | NA | NA |  |
| 04. (-1) | Hong Kong | 258.0 | 526.7 | 529.5 | 591.3 | 574.7 | 144\% | -3\% | 0\% | 9\% | 12\% |
| 05. (-1) | New Zealand | 411.7 | 506.7 | 456.7 | 533.7 | 535.0 | 134\% | 0\% | 3\% | 6\% | 8\% |
| 06. (-) | Singapore | 348.5 | 480.7 | 469.3 | 492.0 | 515.9 | 129\% | 5\% | 8\% | 7\% | 10\% |
| 07. (-2) | Switzerland | 347.0 | 594.1 | 527.2 | 518.1 | 514.2 | 129\% | -1\% | 2\% | -13\% | -11\% |
| 08. $(+9)$ | France | 312.7 | 358.7 | 372.8 | 362.3 | 464.7 | 116\% | 28\% | 32\% | 30\% | 33\% |
| 08. $(+9)$ | Italy | NA | NA | 372.8 | 362.3 | 464.7 | 116\% | 28\% | 32\% | NA | NA |
| 08. $(+9)$ | Spain | NA | NA | 372.8 | 362.3 | 464.7 | 116\% | 28\% | 32\% | NA | NA |
| 08. $(+9)$ | Netherlands | NA | NA | 372.8 | 362.3 | 464.7 | 116\% | 28\% | 32\% | NA | NA |
| 08. $(+9)$ | Belgium | NA | NA | 372.8 | 362.3 | 464.7 | 116\% | 28\% | 32\% | NA | NA |
| 08. $(+9)$ | Austria | NA | NA | NA | 362.3 | 464.7 | 116\% | 28\% | 32\% | NA | NA |
| 08. $(+9)$ | Greece | NA | NA | NA | 362.3 | 464.7 | 116\% | 28\% | 32\% | NA | NA |
| 08. $(+9)$ | Germany | 312.7 | 358.7 | 372.8 | 362.3 | 464.7 | 116\% | 28\% | 32\% | 30\% | 33\% |
| 08. $(+9)$ | Portugal | NA | NA | NA | 362.3 | 464.7 | 116\% | 28\% | 32\% | NA | NA |
| 08. (+9) | Finland | NA | NA | 372.8 | 362.3 | 464.7 | 116\% | 28\% | 32\% | NA | NA |
| 08. $(+9)$ | Ireland | NA | NA | NA | 362.3 | 464.7 | 116\% | 28\% | 32\% | NA | NA |
| 19. $(-3)$ | Poland | NA | NA | NA | 362.3 | 464.2 | 116\% | 28\% | 32\% | NA | NA |
| 19. $(+10)$ | Russia | 303.6 | 407.3 | 369.7 | 362.3 | 464.2 | 116\% | 28\% | 32\% | 14\% | 17\% |
| 19. $(+10)$ | Czech Republic | NA | NA | NA | 362.3 | 464.2 | 116\% | 28\% | 32\% | NA | NA |
| 22. $(-5)$ | Turkey | NA | NA | NA | 362.3 | 464.2 | 116\% | 28\% | 32\% | NA | NA |
| 23. (-15) | Australia | 406.2 | 439.3 | 431.4 | 460.9 | 462.8 | 116\% | 0\% | 3\% | 5\% | 8\% |
| 24. (-17) | Brazil | 275.6 | 109.2 | 260.7 | 465.5 | 458.0 | 115\% | -2\% | 1\% | 320\% | 330\% |
| 25. (-15) | South Africa | 191.2 | 209.3 | 450.5 | 459.0 | 452.0 | 113\% | -2\% | 1\% | 116\% | 121\% |
| 26. (-14) | Denmark | NA | NA | 412.4 | 400.9 | 438.5 | 110\% | 9\% | 12\% | NA | NA |
| 27. (-18) | Philippines | 255.3 | 477.1 | 417.1 | 460.4 | 437.3 | 109\% | -5\% | -2\% | -8\% | -6\% |
| 28. $(+6)$ | United Kingdom | 260.5 | 425.3 | 368.6 | 326.6 | 421.1 | 105\% | 29\% | 32\% | -1\% | 1\% |
| 29. (-16) | Norway | NA | NA | NA | 396.9 | 418.4 | 105\% | 5\% | 8\% | NA | NA |
| 30. (-19) | United States | 160.0 | 409.7 | 410.8 | 410.8 | 400.0 | 100\% | -3\% | 0\% | -2\% | 0\% |
| 31. $(-16)$ | Canada | 149.5 | 339.9 | 323.9 | 372.5 | 393.7 | 98\% | 6\% | 9\% | 16\% | 19\% |
| 32. $(-18)$ | Sweden | NA | NA | 413.2 | 383.7 | 392.8 | 98\% | 2\% | 5\% | NA | NA |
| 33. $(-2)$ | Malaysia | 91.7 | 342.6 | 332.7 | 349.9 | 391.0 | 98\% | 12\% | 15\% | 14\% | 17\% |
| 34. $(-2)$ | Indonesia | 48.0 | 390.1 | 287.6 | 344.8 | 341.0 | 85\% | -1\% | 2\% | -13\% | -10\% |
| 35. (-2) | Mexico | 154.5 | 267.5 | 263.7 | 333.3 | 333.0 | 83\% | 0\% | 3\% | 24\% | 27\% |
| 36. $(-1)$ | India | 99.0 | 174.8 | 229.8 | 277.8 | 262.3 | 66\% | -6\% | -3\% | 50\% | 54\% |

Source: Official Website of the Economist
Note: 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 31: Foreign Exchange Rates |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Country | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | YoY Change (\%) | 5-yr Cum Change (\%) |
| 01. | Czech Republic | 0.0534 | 0.0505 | 0.0504 | 0.0396 | 0.0417 | 0.0407 | 0.0479 | 17\% | -5\% |
| 02. | Malaysia | 0.3268 | 0.3292 | 0.3058 | 0.2793 | 0.2559 | 0.2288 | 0.2557 | 12\% | -22\% |
| 03. | France | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Italy | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Spain | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Netherlands | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Belgium | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Austria | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Greece | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Germany | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Portugal | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Finland | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 03. | Ireland | 1.3196 | 1.3009 | 1.3835 | 1.0875 | 1.1266 | 1.0949 | 1.2185 | 11\% | -6\% |
| 14. | Poland | 0.3157 | 0.3138 | 0.3285 | 0.2692 | 0.2554 | 0.2590 | 0.2880 | 11\% | -8\% |
| 15. | Denmark | 0.1774 | 0.1745 | 0.1853 | 0.1457 | 0.1514 | 0.1472 | 0.1636 | 11\% | -6\% |
| 16. | China | 0.1586 | 0.1621 | 0.1599 | 0.1614 | 0.1540 | 0.1452 | 0.1581 | 9\% | -2\% |
| 17. | United Kingdom | 1.6147 | 1.5430 | 1.6804 | 1.5188 | 1.4489 | 1.2840 | 1.3939 | 9\% | -10\% |
| 18. | Norway | 0.1746 | 0.1702 | 0.1661 | 0.1286 | 0.1221 | 0.1169 | 0.1256 | 7\% | -26\% |
| 19. | Canada | 1.0161 | 0.9805 | 0.9059 | 0.8214 | 0.7885 | 0.7351 | 0.7771 | 6\% | -21\% |
| 20. | South Africa | 0.1289 | 0.1104 | 0.0937 | 0.0825 | 0.0690 | 0.0762 | 0.0801 | 5\% | -27\% |
| 21. | Singapore | 0.8037 | 0.8068 | 0.7957 | 0.7507 | 0.7398 | 0.7177 | 0.7527 | 5\% | -7\% |
| 22. | Sweden | 0.1485 | 0.1513 | 0.1518 | 0.1159 | 0.1230 | 0.1142 | 0.1169 | 2\% | -23\% |
| 23. | New Zealand | 0.8123 | 0.8516 | 0.8576 | 0.7600 | 0.6851 | 0.6948 | 0.7066 | 2\% | -17\% |
| 24. | Japan | 0.0123 | 0.0101 | 0.0098 | 0.0084 | 0.0090 | 0.0090 | 0.0092 | 2\% | -9\% |
| 25. | Switzerland | 1.0984 | 1.0573 | 1.1340 | 1.0483 | 1.0256 | 1.0079 | 1.0179 | 1\% | -4\% |
| 26. | Australia | 1.0332 | 1.0299 | 0.9273 | 0.7823 | 0.7714 | 0.7533 | 0.7564 | 0\% | -27\% |
| 27. | United States | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0\% | 0\% |
| 27. | United Arab Emirates | 0.2723 | 0.2723 | 0.2723 | 0.2723 | 0.2723 | 0.2723 | 0.2723 | 0\% | 0\% |
| 29. | Mexico | 0.0760 | 0.0825 | 0.0761 | 0.0650 | 0.0569 | 0.0529 | 0.0526 | -1\% | -36\% |
| 30. | Hong Kong | 0.1289 | 0.1288 | 0.1290 | 0.1290 | 0.1289 | 0.1285 | 0.1274 | -1\% | -1\% |
| 31. | India | 0.0190 | 0.0184 | 0.0165 | 0.0157 | 0.0150 | 0.0156 | 0.0149 | -4\% | -19\% |
| 32. | Indonesia | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | -5\% | -30\% |
| 33. | Philippines | 0.0234 | 0.0242 | 0.0224 | 0.0226 | 0.0213 | 0.0201 | 0.0191 | -5\% | -21\% |
| 34. | Brazil | 0.5319 | 0.4997 | 0.4457 | 0.3388 | 0.2810 | 0.3177 | 0.2870 | -10\% | -43\% |
| 35. | Russia | 0.0341 | 0.0321 | 0.0277 | 0.0197 | 0.0151 | 0.0178 | 0.0160 | -10\% | -50\% |
| 36. | Turkey | 0.5650 | 0.5560 | 0.4686 | 0.3684 | 0.3513 | 0.2790 | 0.2438 | -13\% | -56\% |
| Source: Bloomberg Finance LP <br> Note: All rates are USD in terms of unit of local currency as on 25 April each year. |  |  |  |  |  |  |  |  |  |  |

Figure 32: Relative Price Levels as Implied by PPP (US=100)

|  | Country | 2013 | 2014 | 2015 | 2016 | 2017 | YoY Change (\%) | $\begin{array}{r} \text { 3-yr Cum } \\ \text { Change (\%) } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01. (-) | Switzerland | 152.4 | 160.2 | 145.8 | 139.2 | 134.5 | -3\% | -16\% |
| 02. (-) | Denmark | 134.1 | 143.2 | 111.8 | 115.3 | 111.7 | -3\% | -22\% |
| 03. (-) | Australia | 155.6 | 136.8 | 115.0 | 111.9 | 107.1 | -4\% | -22\% |
| 04. $(+3)$ | New Zealand | 126.5 | 124.8 | 112.3 | 101.8 | 102.3 | 1\% | -18\% |
| 05. (+1) | Finland | 118.0 | 126.9 | 100.6 | 104.1 | 102.0 | -2\% | -20\% |
| 06. (-2) | Norway | 152.7 | 151.2 | 118.2 | 110.6 | 101.8 | -8\% | -33\% |
| 07. (-2) | Sweden | 133.5 | 132.8 | 100.9 | 107.1 | 100.4 | -6\% | -24\% |
| 08. (+1) | United States | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 0\% | 0\% |
| 09. $(+7)$ | Ireland | 107.6 | 114.7 | 89.6 | 90.8 | 93.7 | 3\% | -18\% |
| 10. $(+4)$ | Japan | 108.1 | 102.5 | 86.3 | 92.3 | 93.5 | 1\% | -9\% |
| 11. (-) | Austria | 108.0 | 115.1 | 90.5 | 93.8 | 92.3 | -2\% | -20\% |
| 12. $(-)$ | Belgium | 109.1 | 116.2 | 90.8 | 93.1 | 90.4 | -3\% | -22\% |
| 13. (-) | France | 109.9 | 116.1 | 90.5 | 92.6 | 90.0 | -3\% | -22\% |
| 14. $(-4)$ | Canada | 121.9 | 111.9 | 101.4 | 97.5 | 89.2 | -9\% | -20\% |
| 15. $(-7)$ | United Kingdom | 107.7 | 117.0 | 106.0 | 101.1 | 89.0 | -12\% | -24\% |
| 16. $(-1)$ | Netherlands | 108.2 | 114.6 | 89.8 | 91.6 | 88.8 | -3\% | -22\% |
| 17. (-) | Germany | 101.3 | 107.2 | 84.5 | 87.5 | 86.1 | -2\% | -20\% |
| 18. $(-)$ | Italy | 99.9 | 105.8 | 82.9 | 85.2 | 82.7 | -3\% | -22\% |
| 19. $(+1)$ | Hong Kong | 70.3 | 71.6 | 71.8 | 72.5 | 74.1 | 2\% | 3\% |
| 20. $(-1)$ | Spain | 91.7 | 95.9 | 74.5 | 75.6 | 73.1 | -3\% | -24\% |
| 21. $(+1)$ | Portugal | 81.7 | 84.9 | 67.2 | 68.8 | 67.6 | -2\% | -20\% |
| 22. $(-1)$ | Greece | 90.2 | 93.8 | 70.9 | 70.8 | 67.3 | -5\% | -28\% |
| 23. $(+1)$ | Singapore | 71.9 | 70.0 | 64.9 | 62.7 | 62.3 | -1\% | -11\% |
| 24. $(+3)$ | Brazil | 73.5 | 69.5 | 55.9 | 49.1 | 59.1 | 20\% | -15\% |
| 25. (-2) | United Arab Emirates | 69.3 | 69.1 | 67.0 | 65.8 | 55.6 | -15\% | -19\% |
| 26. $(-1)$ | Czech Republic | 68.0 | 67.7 | 53.0 | 56.2 | 55.0 | -2\% | -19\% |
| 27. $(-1)$ | China | 56.8 | 56.8 | 57.7 | 54.7 | 51.5 | -6\% | -9\% |
| 28. $(+1)$ | Poland | 57.2 | 60.2 | 48.7 | 45.6 | 46.1 | 1\% | -23\% |
| 29. (-1) | Mexico | 63.3 | 59.7 | 50.9 | 45.7 | 43.2 | -5\% | -28\% |
| 30. (+2) | South Africa | 52.7 | 46.3 | 42.5 | 36.9 | 42.4 | 15\% | -8\% |
| 31. (+3) | Russia | 55.7 | 51.5 | 37.9 | 30.7 | 38.7 | 26\% | -25\% |
| 32. $(-1)$ | Philippines | 43.3 | 40.0 | 40.6 | 38.8 | 36.0 | -7\% | -10\% |
| 33. $(-3)$ | Turkey | 54.9 | 48.8 | 40.1 | 40.4 | 34.2 | -15\% | -30\% |
| 34. $(-1)$ | Malaysia | 48.0 | 44.3 | 39.9 | 36.7 | 32.4 | -12\% | -27\% |
| 35. (-) | Indonesia | 37.1 | 31.8 | 29.4 | 29.8 | 30.4 | 2\% | -4\% |
| 36. (-) | India | 27.9 | 26.4 | 26.3 | 25.5 | 26.7 | 5\% | 1\% |

Source: IMF, WEO, Bloomberg Finance LP, Deutsche Bank calculations
Note: The PPP conversion rates as published by the IMF have been adjusted with actual foreign exchange rates (as on 25 April 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.

Figure 33: Chances in Consumer Price Indices (Annual, \%)

|  | Country | 2012 | 2013 | 2014 |
| :---: | :---: | :---: | :---: | :---: |
| 01. (+1) | Turkey | 8.89 | 7.49 | 8.85 |
| 02. (+6) | Mexico | 4.11 | 3.81 | 4.02 |
| 03. (+1) | South Africa | 5.65 | 5.77 | 6.08 |
| 04. (+3) | Indonesia | 3.98 | 6.41 | 6.40 |
| 05. (+6) | Malaysia | 1.67 | 2.09 | 3.17 |
| 06. $(-3)$ | Russia | 5.10 | 6.76 | 7.83 |
| 07. (-6) | Brazil | 5.40 | 6.20 | 6.33 |
| 08. $(-3)$ | India | 9.38 | 10.11 | 6.42 |
| 09. (+3) | Philippines | 3.16 | 2.95 | 4.17 |
| 10. $(+11)$ | United Kingdom | 2.82 | 2.56 | 1.46 |
| 11. (+11) | Czech Republic | 3.54 | 1.38 | 0.41 |
| 12. $(+7)$ | Austria | 2.57 | 2.12 | 1.47 |
| 13. (-) | Belgium | 2.62 | 1.25 | 0.50 |
| 14. $(+3)$ | United States | 2.07 | 1.47 | 1.61 |
| 15. (+19) | Spain | 2.43 | 1.54 | -0.18 |
| 16. (-) | Australia | 1.71 | 2.48 | 2.49 |
| 17. $(-3)$ | United Arab Emirates | 0.67 | 1.10 | 2.33 |
| 18. $(-12)$ | Norway | 0.34 | 1.98 | 1.88 |
| 19. $(-1)$ | Sweden | 0.94 | 0.44 | 0.21 |
| 20. (-) | New Zealand | 1.09 | 1.10 | 1.27 |
| 21. $(+4)$ | Germany | 2.12 | 1.59 | 0.77 |
| 22. $(-7)$ | Canada | 1.53 | 0.92 | 1.92 |
| 23. $(+9)$ | Poland | 3.65 | 0.83 | 0.10 |
| 24. $(-1)$ | Portugal | 2.77 | 0.44 | -0.15 |
| 25. (-15) | China | 2.61 | 2.57 | 2.06 |
| 26. (-17) | Hong Kong | 4.06 | 4.30 | 4.45 |
| 27. $(+3)$ | Italy | 3.31 | 1.24 | 0.24 |
| 28. $(-1)$ | Netherlands | 2.82 | 2.56 | 0.32 |
| 29. $(-3)$ | France | 2.22 | 0.99 | 0.61 |
| 30. $(-1)$ | Greece | 1.04 | -0.85 | -1.39 |
| 31. $(-3)$ | Denmark | 2.33 | 0.53 | 0.35 |
| 32. $(-8)$ | Finland | 3.17 | 2.22 | 1.19 |
| 33. $(+3)$ | Singapore | 4.58 | 2.36 | 1.03 |
| 34. (+1) | Switzerland | -0.69 | -0.22 | -0.01 |
| 35. (-4) | Japan | -0.03 | 0.35 | 2.75 |
| 36. (-3) | Ireland | 1.88 | 0.55 | 0.29 |

Source: Haver, Deutsche Bank calculations
Note: Inflation is year on year change of CPI levels for every calendar year. Latest data is as of Q4 2017.

## Appendix 1

## Important Disclosures

## *Other information available upon request

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