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News Release

New UBS report highlights the high cost of climate change to global middle class

Consumption patterns change significantly of those living in cities most at risk for climate change

The five costliest events were winter storms in the United States, Canada and Europe

Key findings:

- **2015 saw the hottest temperatures on record**
- **Natural disasters caused 16,200 fatalities and total losses of USD 32 billion in the first half of 2015**
- **Middle-class residents of cities at high risk spend more of their household budget on housing compared to the respective national averages and less on luxuries, entertainment and household durable goods**
- **Most of the global middle class lives in Southeast Asia, the region with the fastest urban population growth in recent years**
- **91% of weather related losses in Asia are uninsured**
- **One-third of weather related losses in the United States are uninsured bringing the total sum of damages to 1.5 trillion USD in total economic losses from 1980 – 2014**

Zurich, 11 January 2016 – UBS Group AG today launched “Climate change: a risk to the global middle class” – its first report measuring the impact of climate change and its effects on the global middle class. Estimated at around one billion people worldwide, and with substantial assets and political influence, the middle class is key to social order and economic growth. Given the group’s size, spending power and dynamism, the erosion of middle-class wealth through climate change threatens both economic and sociopolitical stability. At the same time, the middle class also represents the greatest opportunity for change.

To examine the impact of climate change on the middle class, UBS looked at middle-class consumption in 215 cities around the world and compared consumption patterns to the level of climate-change risk in those cities. The study found that in cities most at risk from climate change, such as Los Angeles, Tokyo and Shanghai, spending priorities are noticeably different, with the middle class spending between 0.6 and 0.8 percent more on housing when compared to the respective national average. In the US, middle class residents of high climate-change risk cities spend between USD 800 and USD 1,600 more annually on housing compared to a lower risk city. To compensate, middle-class households spend proportionately less on luxuries, entertainment and durable goods.

The world's largest global cities contain nearly a quarter of the global population and generate around half of global GDP. The concentration of both people and wealth in urban centers means cities are crucial not just to national economies, but also to global companies and their investors. Most of the global middle class lives in Southeast Asia, the region that has experienced the fastest urban population growth in recent years.

Commenting on the report, Caroline Anstey, Group Managing Director, UBS, and Global Head, UBS and Society, said:

“Climate change is already having a real and significant impact on the global population, and conditions are only predicted to worsen over time. UBS is committed to combating the effects of climate change for the good of the global community and economy.”

Paul Donovan, Global Economist, Managing Director, UBS Investment Bank, added:

“The middle class has two important qualities that make them critically important to the conversation about climate change: substantial assets and political influence. If the effects of climate change significantly hurt the middle class, the inevitable reaction should in turn elicit a strong response from policy makers. It is a big reason why the latest United Nations Framework Convention on Climate Change (UNFCCC) agreement in Paris was signed by all 196 participating countries – the threat is real.”

Key findings from “Climate change: a risk to the global middle class” include:

The added cost of climate change

The financial costs of climate-related events for both governments and taxpayers are already apparent. Despite the increased threat of natural disasters, the global middle class is not well insured. In the US, which has the highest level of insurance penetration in our study sample, 32 percent of weather-related losses remain uninsured. Those without access to coverage are subsequently reliant on the safety net provided by the US government, which in turn has economic consequences for US taxpayers: between 2011 and 2013, the cost of US federal disaster relief for hurricanes, floods and droughts totaled USD 136 billion, equating to USD 400 annually per household.

In less developed and newly industrialized nations, the middle class is typically underinsured, with emerging markets showing very low insurance penetration relative to property value (e.g. 0.12% for China and 0.07% for India).

Desperate times lead to desperate measures

In 2000, nearly half of the global population of 6 billion people lived in cities; the United Nations expects this figure to rise to 60 percent by 2025. Such climate-driven population shifts have the potential to create and exacerbate conflict.

The US Department of Defense argues that in already volatile situations climate change can act as a “threat multiplier,” intensifying existent hostility and tensions. For example, while news coverage focuses on Syrians fleeing war and economic collapse for Europe, the fact that Syria suffered an unprecedented drought from 2006 to 2011 is rarely mentioned. In the course of five years, Syria lost 85 percent of its livestock and saw crop production plummet, child malnutrition worsen and the subsequent migration of 1.5 million residents from rural to urban areas. These conditions led to protests, which ultimately escalated into civil war.

Too hot to handle?

Research has shown that as temperatures rise beyond 30 degrees Celsius (86 degrees Fahrenheit), humans can struggle to adapt to their surroundings, and mortality rates rise. As of 2015, nearly 25 percent of the cities analyzed already have median annual temperatures above 20 degrees Celsius (68 degrees Fahrenheit).

A study of 15 European cities over a 10-year period estimated that even a 1 degree Celsius (1.8 degrees Fahrenheit) increase above the respective average summer temperature threshold resulted in a two to three percent increase in mortality.

In the longer term, temperatures are predicted to rise to a level that will not only endanger human health, but may also stress physical infrastructure to breaking point. Given global interconnectedness, even localized climate-related events have the potential to undermine the world economy.

From analysis to action

Nevertheless, the report concludes that the global middle class is increasingly aware of and adapting to climate change, albeit modestly and sporadically. In view of the middle class's political and social importance, growing economic vulnerability may well translate into pressure for innovative policy making. Whether investment and ingenuity are enough to preserve middle-class wealth and status, however, remains to be seen.

To find out more and to read the full report, please visit www.ubs.com/climatechange

Methodology

This UBS study leverages the most recent scientific data on temperature-related mortality and flood risk in global cities. Using this data, combined with a bespoke database of middle-class household economic behavior, we evaluated the exposure of the middle class to climate-change risk and the extent to which it is adapting. The sample referenced in this report includes 215 cities across 15 countries at different stages of economic development.

About UBS

UBS is committed to providing private, institutional and corporate clients worldwide, as well as retail clients in Switzerland, with superior financial advice and solutions while generating attractive and sustainable returns for shareholders. Its strategy centers on its Wealth Management and Wealth Management Americas businesses and its leading universal bank in Switzerland, complemented by its Asset Management business and its Investment Bank. These businesses share three key characteristics: they benefit from a strong competitive position in their targeted markets, are capital efficient and offer a superior structural growth and profitability outlook. UBS's strategy builds on the strengths of all of its businesses and focuses its efforts on areas in which it excels, while seeking to capitalize on the compelling growth prospects in the businesses and regions in which it operates. Capital strength is the foundation of its success.

UBS is present in all major financial centers worldwide. It has offices in more than 50 countries, with about 35% of its employees working in the Americas, 36% in Switzerland, 17% in the rest of Europe, the Middle East and Africa and 12% in Asia Pacific. UBS Group AG employs about 60,000 people around the world. Its shares are listed on the SIX Swiss Exchange and the New York Stock Exchange (NYSE).

About UBS's climate change commitment

UBS believes that climate change is one of the most significant challenges of our time. The world's key environmental and social challenges – such as population growth, energy security, loss of biodiversity and access to drinking water and food – are all closely intertwined with climate change. This makes the transition to a low-carbon economy vital. UBS supports this transition through a comprehensive climate change strategy.

UBS is determined to support its clients in preparing for success in an increasingly carbon-constrained world. As a leading global financial services provider, UBS focuses its climate change strategy on risk management, investments, financing, research and its own operations. Key commitments include:

- Supporting renewable energy and clean-tech transactions;
- Only supporting transactions of companies operating coal-fired power plants if they have a strategy to reduce coal exposure or adhere to the strict greenhouse gas emission standards recommended by leading international agencies;
- Not supporting certain coal mining companies and significantly limiting lending and capital raisings provided to the sector;
- Securing 100% of electricity from renewable sources by 2020, thereby reducing its own greenhouse gas footprint by 75% compared to 2004 levels.

For more information, please visit www.ubs.com/climate.

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