

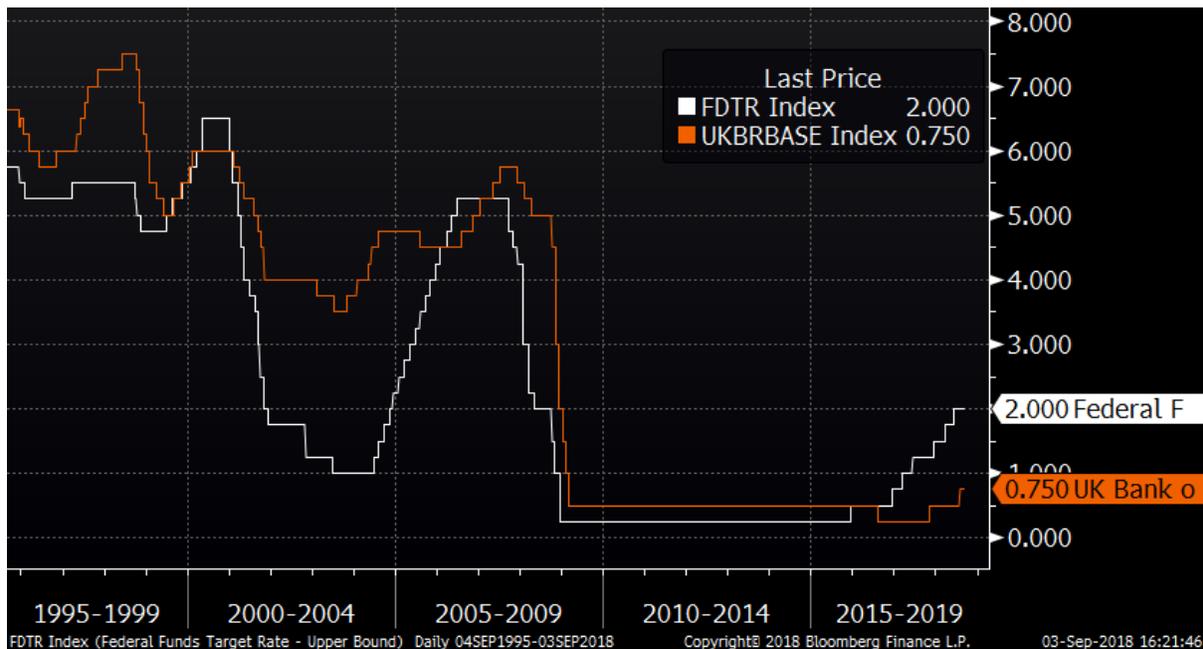


August

UK Interest Rates

In the past the Bank of England has marched behind the US Federal Reserve with a time lag of approximately 6 months in its moves in interest rates. This time around, the lag is longer mainly because Mark Carney implemented an unnecessary (and possibly politically motivated) “emergency” interest rate reduction following the outcome of the Brexit vote. Ordinarily he should have been raising rates at about that time because the US had by then begun its tightening policy and the UK was experiencing reasonable growth. The emergency cut was reversed in November 2017 but by then the US had implemented 3 more rate increases and since then it has delivered a further 3. This makes 7 rises in total since the bottom of the interest rate cycle. Against this, the UK has barely started to move and so the divergence between the two countries is now unusually large - although not unheard of in history.

Chart showing the divergence of US Federal Reserve and Bank of England Interest Rates since 2015



Based on the past US and UK interest rates should realign; the only question is whether the UK will rise or the US fall? Almost certainly, it will be the former. During August the Bank of England lifted rates by 0.25% which of itself is a small move but which sent out a signal that there is probably more to come. This put the dampers on the UK share market.

Emerging Markets

Emerging market equities and their currencies have been weak. In particular Turkey and Argentina are threatening default and their currencies have collapsed. Over 10 years they have both lost more than 70% of their value versus the Pound, which itself has been a weak currency. (Against the Swiss Franc they have lost over 90% of their value in this period. It is safe to say that the 99% majority of Turks and Argentinians will never be able to visit Switzerland).

Drop in value of Turkish Lire and Argentinian Peso v the Pound

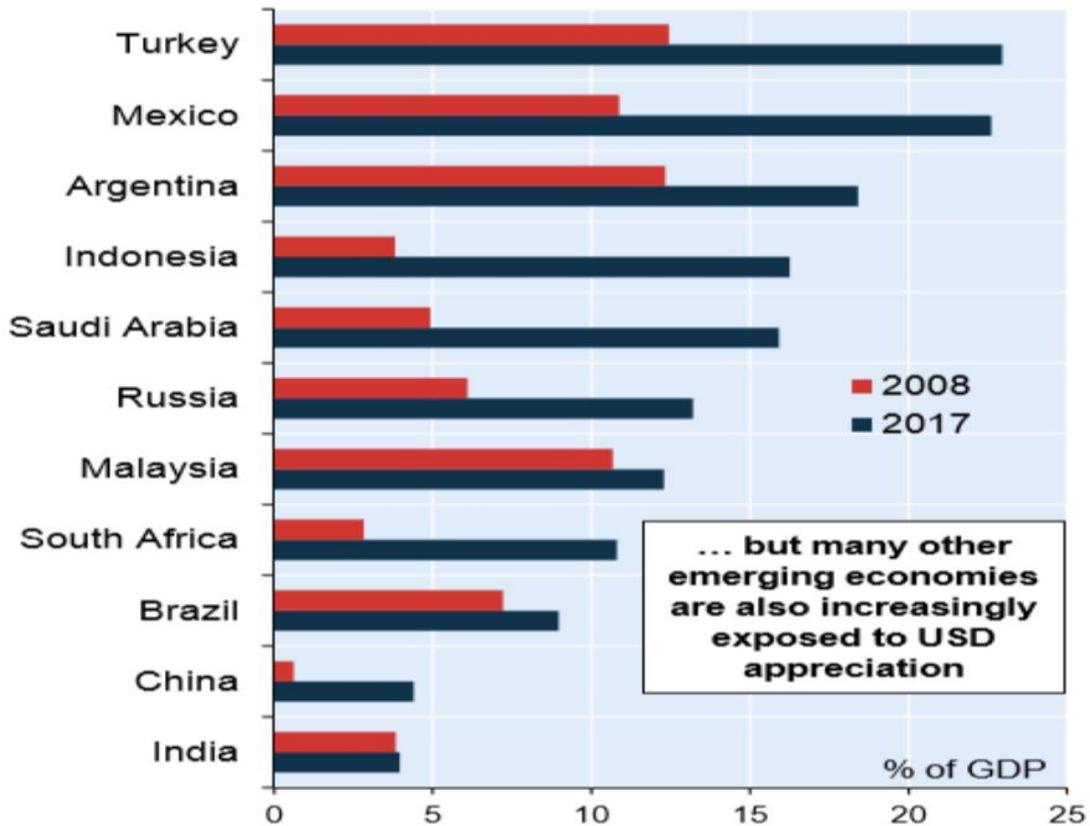
The reason is the same as whenever emerging markets are weak; they can't repay their debts. The rising US interest rate (shown above), the shrinking of the Federal Reserve's balance sheet and the recent strength of the US economy have contributed to the rise in the US Dollar. This causes problems for emerging countries because most have sizeable Dollar borrowings which suddenly become prohibitively expensive to repay from their domestic earnings. In the 1990s many individuals were bankrupted because they took out mortgages denominated in Swiss Francs to buy properties in, among other places, Poland and the UK. It became impossible to repay these mortgages out of Pounds and Zloty as the SFR rose. It is the same story with these emerging nations.

Of course they should have thought about this before they took out the Dollar loans, but they never seem to do this. Taking out a foreign currency loan is one of the riskiest things you can do (unless you also hold easily marketable assets in that currency). Why they make the same mistake in every cycle is a bit of a mystery although you could turn the question around. Why do western countries make Dollar loans to emerging markets at all when history is replete with default of such loans? Of course they were encouraged to take them out by the zero interest rate policy of the Central Banks which was a form of entrapment. But it is also indiscipline on the part of the borrower.

Chart shows exposure to Dollar strength. US Denominated Credit as a per cent of GDP - change between 2008 and 2017

Emerging Market Exposure to USD Appreciation

USD-denominated credit to non-bank borrowers, % of GDP



I have written about this in past reports and I described the process as it was happening. So it is no surprise to see these countries in trouble and it is why I have not invested there - even when it was fashionable to do so.

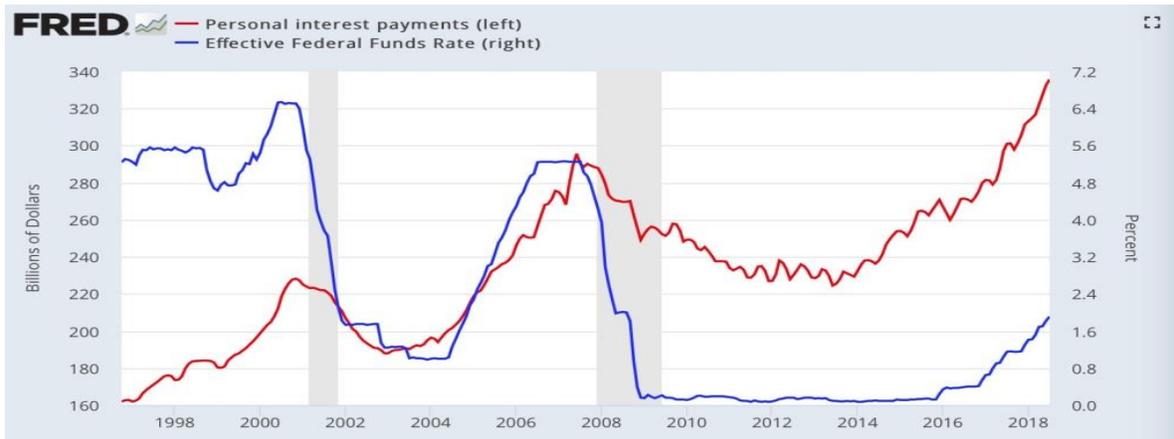
Meanwhile, the US made a new all-time high

Americans are famously optimistic. American investors seem happy to look through potentially destabilising events and push their stock market higher. War in the Middle East, nuclear threats from North Korea and trade war threats with China and Europe have not been able to derail this market. There was a big wobble in February and March of 2018 but those concerns were swept away. I have frequently misjudged the power of this optimism.

Trump's tax reductions have boosted the economy and also confidence, at least in the short term. The US Deficit (government spending less taxes) is deteriorating fast as a result but this is as ever a problem for tomorrow. In the meantime GDP growth touched 4.2% for the second quarter which is a very high number.

Forecasting outcomes is a bit of a mug's game. Stanley Druckenmiller is a famous trader and he would say that it is wrong to short something which is making new highs (or to buy something which is making new lows). His reasoning is that we can never know all that there is to know about any investment and we should assume that someone else knows more. So if another person is willing to pay prices which have never been seen before (or receive lower proceeds than have ever been accepted before) then the force of that person's motive must be very great - certainly greater than the force of our motive. (I hope I have summarised his philosophy correctly). I am therefore not suggesting to go short of the US share market but there is growing list of reasons to suggest that it could be due a set-back.

I Quantitative tightening is well underway. As mentioned above, US interest rates are rising and the Federal Reserve's balance sheet is shrinking. When the opposite applied, stocks were boosted. All things equal, as policy is reversed stocks should meet resistance. Meanwhile debt levels are at record highs and interest payments are an increasing burden on "ordinary people" (red line).



II The US yield curve has become quite flat. The 3 year rate is 2.69%, the 10 year rate is 2.86%. A flat yield curve is usually a precursor to recession although I agree that right now, at GDP growth of +4.2%, there is not much sign of it.

III The previous longest uninterrupted bull market in the US was 3,452 days between 1990 and 2000. This has now been exceeded since the lows of the financial crisis reached in 2009. This bull market is running to 3466 days (as per 2/9/18).

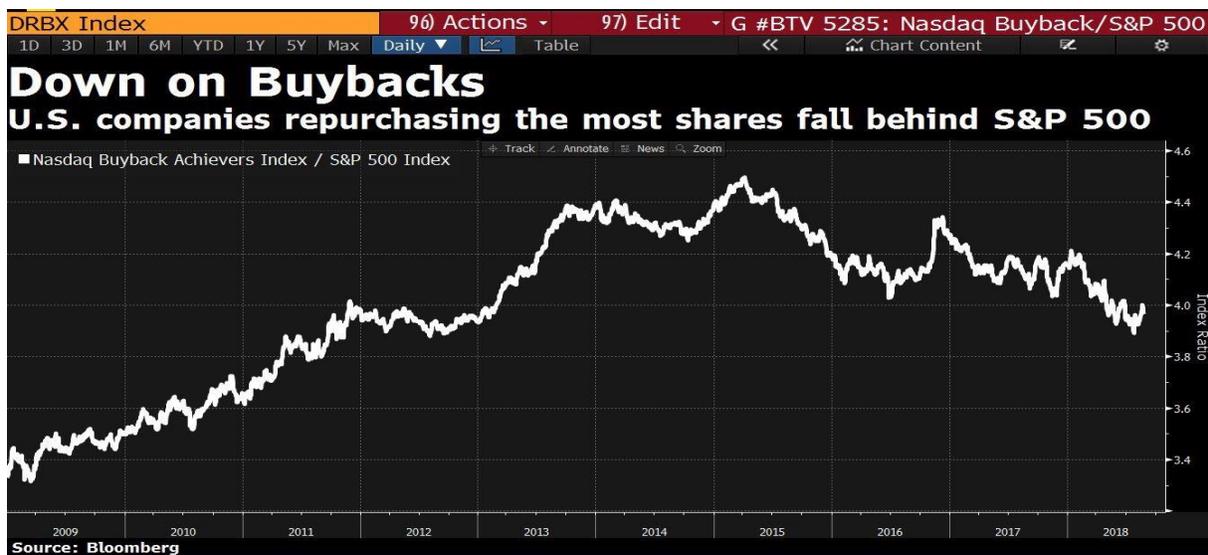
IV The proportion of companies in the broad S&P 1500 index which are unable to meet the interest payments on their debt out of operating income (let alone ever repay the debt) has risen from 3% in 2000 to 6% in 2009 to 15% today. As has been covered in these reports before, low interest rates do not give rise to prosperity. They encourage debt and mal-investment - ie investments which can never pay their way. This shines through in the above statistic. What is alarming is that the previous highs were reached during market crashes and economic turmoil. This time around we have a higher high in problem payers while things are allegedly all running smoothly.

V The US market needs a continuing stream of share buy backs to maintain current levels. Buy backs involve the management using the company's money or loading the company with debt in order to buy the company's shares in the market. These companies therefore slowly become riskier because they have replaced equity with debt in their balance sheets.

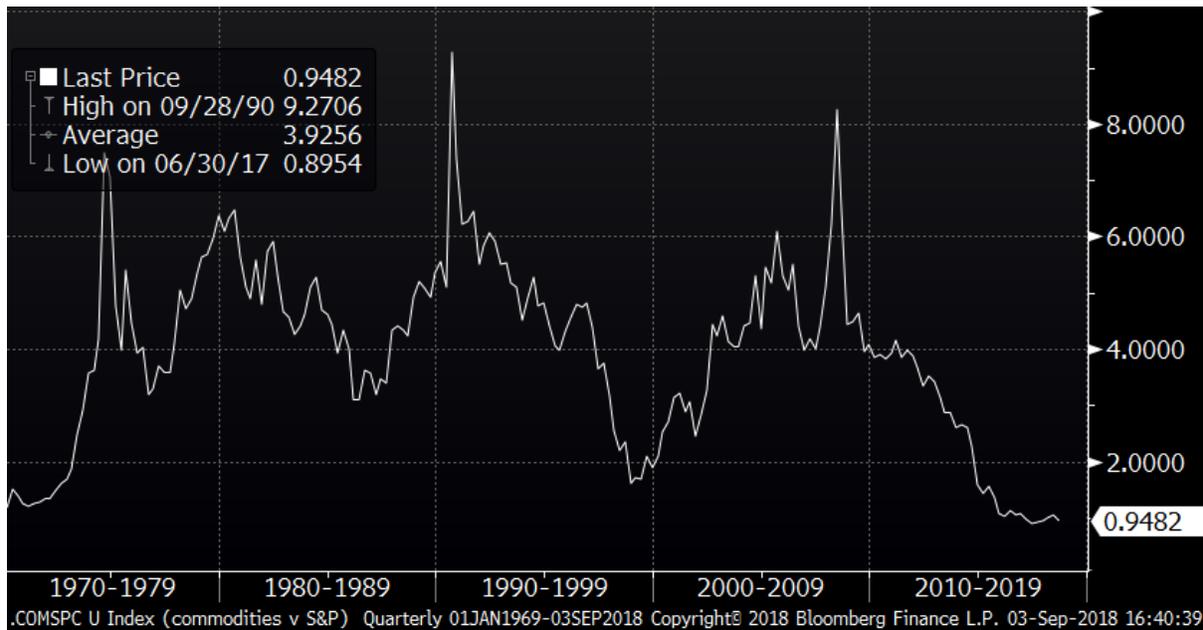
“Companies set to buy back \$1.0 trn worth of shares this year, and that should keep the market afloat” enthuses Goldman Sachs on CNBC.

But there is a new problem with buy backs which is that the companies undertaking them are beginning to underperform. Investors perceive the bought back companies to be more risky and therefore do not want to pay up for them ie they begin to apply a lower PE ratio. Each Dollar of earnings is deemed to be of a lower quality than it was prior to the buy back.

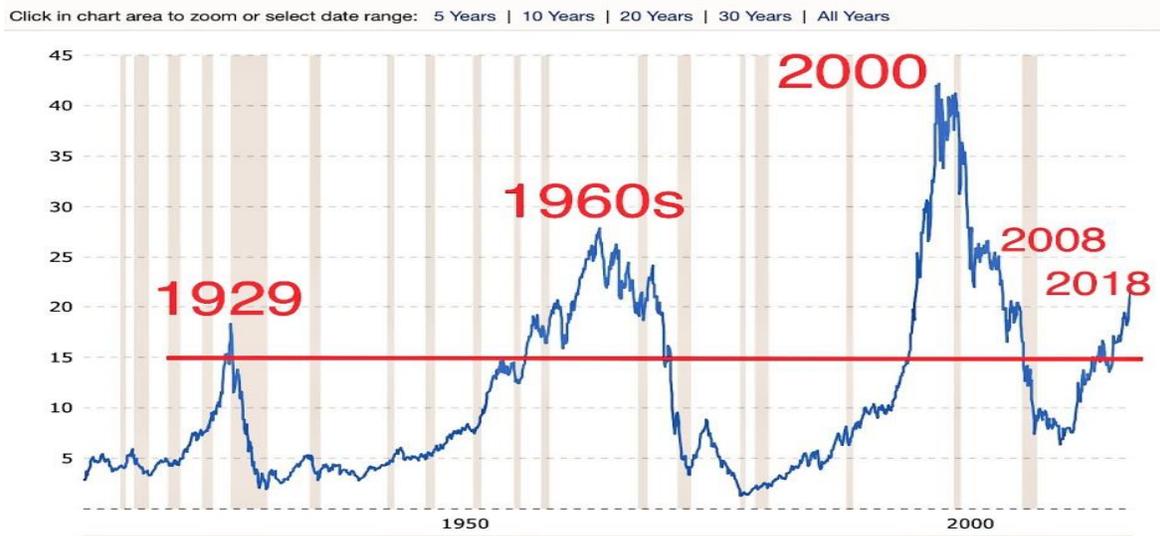
Until about 2015 investors liked the idea of buy backs because the companies’ earnings could be applied to a smaller number of shares. As a group they outperformed. But as the perception of risk rises, investors have become more reluctant and these companies started to underperform (see chart). So unlike Goldmans, buy backs are probably not a reason to get excited about the market.



VI Relative to other investments, US shares appear to be at the top of their range. One example is commodities which appear cheap compared with the S&P. Based on the chart below we could see in the coming years a dramatic and sustained underperformance of share compared with commodities. These are long cycles.



Within commodities, we can look at gold. The ratio of 20 to 1 between the value of the Dow (the oldest index still in use) has only been reached 4 times in the last 120 years. Having said this, it did manage to stay above this ratio for several years at a time but eventually there was a material realignment. As mentioned in the first section we reduced our gold on a shortish term view (which was a good thing to do) but based on the long cycles we should be prepared to increase the weight once again materially and at short notice. Gold will have its day again compared with shares.



VII Warren Buffett's favourite indicator shows the size of the stock market as a ratio of the country's GDP. At 138% this ratio has made a new high beating the previous 136% set in 2000. It is not a fool proof measure but is worth keeping an eye on.

Investment Theme

I have recently come across a blog by economist Timothy Taylor called Conversable Economist.

<https://conversableeconomist.blogspot.com/>

I like his articles and I reproduce two below which in combination could be a powerful investment theme. I have not spoken to him about this reproduction so I fully attribute and recommend readers to take a look at his work.

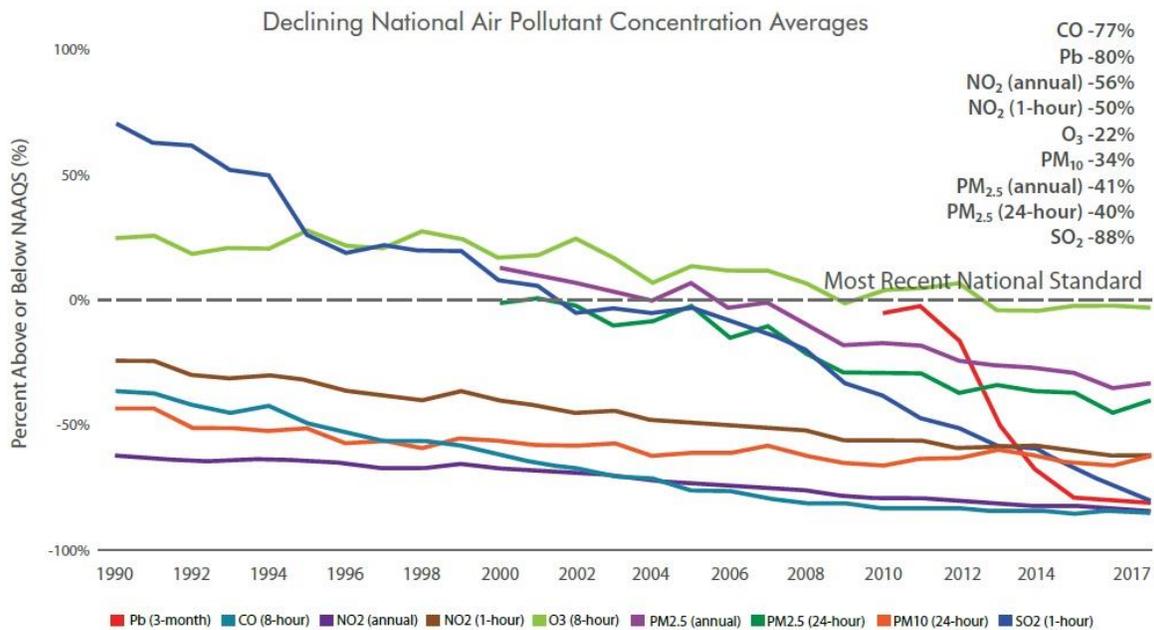
1 Victories Against Air Pollution

There is a certain kind of environmentalist who seems unable to acknowledge any good news about the environment, because it might create complacency about remaining issues. I'm not a fan of this approach. When successes are denied, credibility diminishes. And if there's never been an environmental success to celebrate, I'm more likely to be discouraged about the future than energized. In that spirit, here are some figures from an Environment Protection Agency annual report, Our Nation's Air.

This figure shows the decline in what are often called the "criteria" air pollutants. The horizontal line shows the U.S. National Ambient Air Quality Standards. At a national level, all of the pollutants are below the dashed line. The percentages in the upper right corner of the figure show the decline in the concentration of each category of air pollution since 1990s.

Air Quality Trends Show Clean Air Progress

While some pollutants continue to pose serious air quality problems in areas of the U.S., nationally, criteria air pollutant concentrations have dropped significantly since 1990 improving quality of life for many Americans. Air quality improves as America grows.

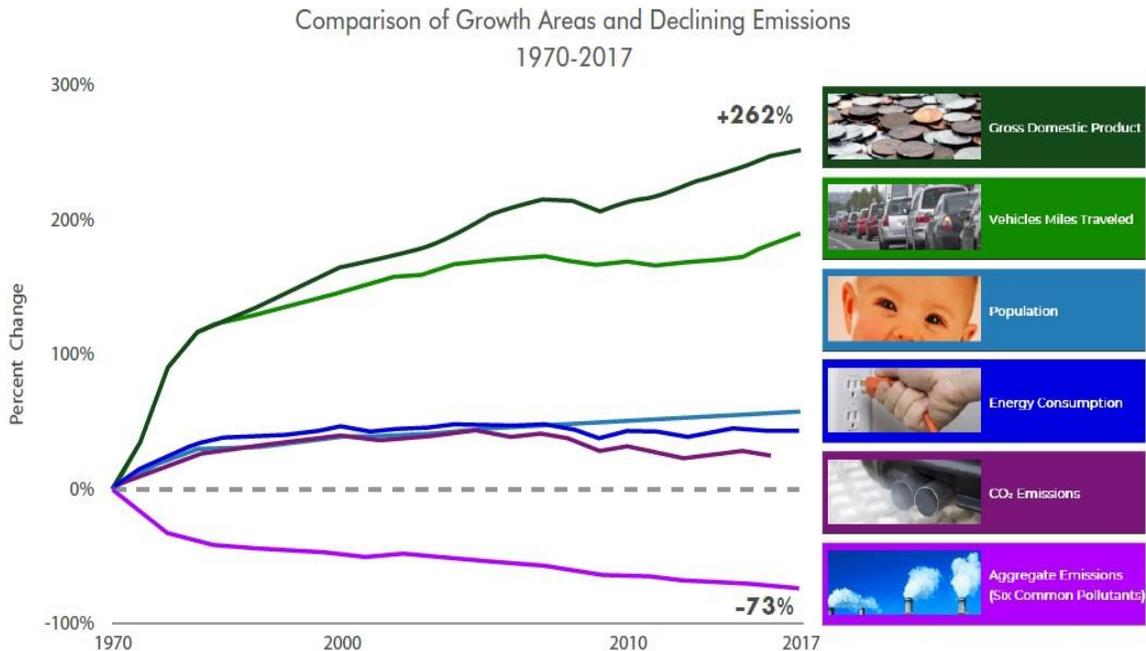


In thinking about how to reduce pollution further, it's worth noting that different pollutants tend to come from different sources. For example, highway vehicles (green bar) are bigger producers of carbon monoxide and nitrogen oxides, while stationary fuel combustion (think power plants, blue bar) produce a large share of the particulates and sulphur dioxide, and industrial processes contribute most to emissions of volatile organic compounds (VOC) and ammonia (NH₃).

It's worth noting that the overall decline in air pollution in the last half-century or so is happening at a time of rising US population, rising GDP, vehicle-miles travelled, and overall energy consumption.

Economic Growth with Clean Air

Between 1970 and 2017, the combined emissions of the six common pollutants (PM2.5 and PM10, SO2, NOx, VOCs, CO and Pb) dropped by 73 percent. This progress occurred while the U.S. economy continued to grow, Americans drove more miles and population and energy use increased.



And yes, of course, these criterion air pollutants, by tradition, don't include carbon dioxide and other greenhouse gases. Here, I would just note that actions to reduce conventional air pollutants, both in the US and around the world, can be viewed as part of a "co-benefits" approach, which would lead also to lower carbon emissions.

2 Air Conditioning: Problem, Solution, Problem, Solution (?)

Problem: Many places of planet Earth are so hot, at least during significant portions of the year, that it has adverse effects on human health and productivity.

Solution: Air conditioning!

Problem: The dramatic expansion of air conditioning all around the world raises demand for electricity. Generating electricity is often done with fossil fuels, which (especially in emerging markets where emissions standards are often more lax) can generate conventional air pollutants, and which in all markets add to carbon dioxide in the atmosphere. In addition,

common methods of air conditioning also use refrigerants , which are also powerful greenhouse gases if/when they escape into the atmosphere

Solution: ???

This scenario sets the stage for "The Future of Cooling: Opportunities for energy-efficient air conditioning," a report published by the International Energy Agency (an autonomous international agency with 29 countries as members, May 2018, free registration may be needed to access report). Here are some figures and comments that caught my eye.

Chart below shows the rise in the stock (right-hand axis in millions of units) and capacity (left-hand axis in gigawatts) of air conditioning around the world. Either way, it's roughly a tripling in the last quarter-century.

Figure 1.3 • Worldwide stock and capacity of ACs by sector

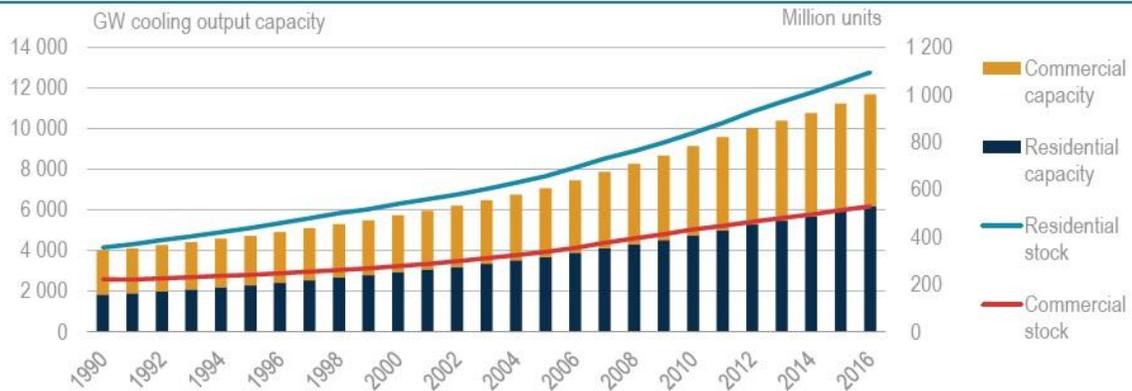
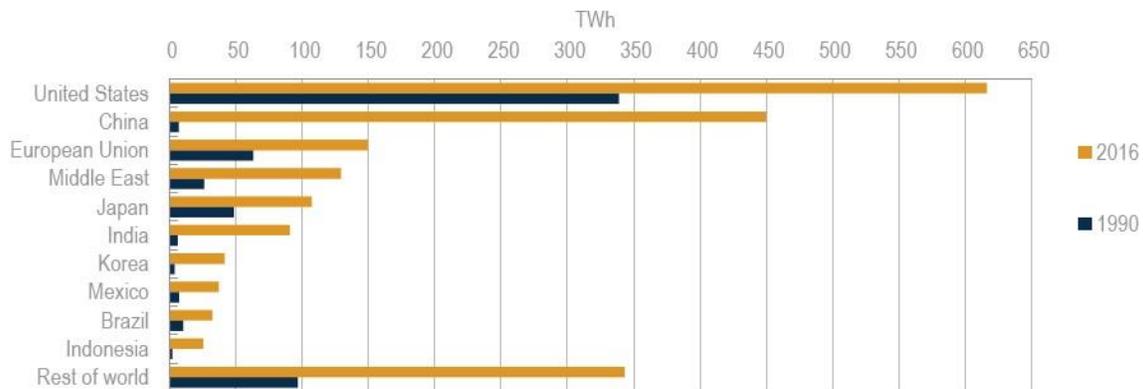


Chart below gives a sense of how the magnitude of energy consumption going to air conditioning and how it has expanded. The blue line is 1990; the yellow line is 2016. In China, electricity going to air conditioning was almost zero in 1990, but it's rapidly catching up to US levels.

Figure 1.10 • Final energy consumption for space cooling by fuel and country/region



The report notes:

Demand seems likely to continue rising quickly for a number of reasons: economic growth in emerging markets like India and Brazil, as well as China; greater use of AC in countries where incomes are already relatively high, like countries of western Europe; rising global population; a global shift to a larger share of population living in urban areas; and the demand for air conditioning from rising numbers of elderly around the world, whose health is especially vulnerable to episodes of high heat.

Restraining the growth of future demands for electricity that would be used for cooling can make a big difference, because demand for cooling is often what determines the peak-load demand for electricity. If you can reduce the peak, you can literally build fewer electricity-generating facilities.

The IEA report goes through detailed scenarios for future demand and how it could be reduced by various policies. I'll leave that level of detail to the report. I'll just say here that the steps aren't magic.

Continually ratchet up the efficiency of AC units. They have become about 50% more efficient in last 25 years, but an AC unit will typically last 10 years or more, so greater efficiency now has a future payoff. Apparently, one study found that "a 30% improvement in global AC

performance by 2030 would reduce peak load by the equivalent of as much as 710 mid-sized coal power plants."

Design homes and commercial buildings so that they don't need as much cooling: shades above windows, natural venting, roofs designed to reflect solar heat, and so on.

Investigate methods of cooling that don't use as much electricity or refrigerants. Some of the lesser-known examples discussed are "district cooling networks," which "supply chilled water produced in a central plant to buildings and industrial sites through a network of insulated pipes," and "solar cooling" technologies that use a heat pump or absorption chiller (these technologies get a bit of explanation in the report).

Homage: I ran across a mention of this report in a leader and an article in The Economist magazine (August 25, 2018). The articles offer some back-of-the-envelope calculations.

"What is the single most effective way to reduce greenhouse-gas emissions? Go vegetarian? Replant the Amazon? Cycle to work? None of the above. The answer is: make air-conditioners radically better. On one calculation, replacing refrigerants that damage the atmosphere would reduce total greenhouse gases by the equivalent of 90bn tonnes of CO₂ by 2050. Making the units more energy-efficient could double that. By contrast, if half the world's population were to give up meat, it would save 66bn tonnes of CO₂. Replanting two-thirds of degraded tropical forests would save 61bn tonnes. A one-third increase in global bicycle journeys would save just 2.3bn tonnes. *Air-conditioning is one of the world's great overlooked industries. ...*

"In 2017, the Lawrence Berkeley National Laboratory in California, a research centre, calculated the extra carbon emissions that could be saved if air-conditioners were better. If HFCs were phased out and all units were as efficient as the best ones, the world could be spared around 1,000 average-sized (500MW capacity) power stations by 2030. There would be many more air-conditioning units, but each would use less energy. In India, this would save three times as much in carbon emissions as the prime minister's much-vaunted plan to install 100 gigawatts of solar capacity by 2022. In China, it would save as much as eight Three Gorges dams (the largest dam in the world)."

[Attributed to Timothy Taylor]