Waiting on the Fed

Fixed Income Investments in an Uncertain World

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CIO Wealth Management Research

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An uncertain world …

Uneven economic growth

Divergent monetary policies

Inconsistent fiscal policies

Competing labor forces

Geopolitical tensions

Increased volatility

Source: UBS CIO WMR, as of April 2015
The big picture: the Fed is keenly aware of the fact that …

- **Global growth** remains *uneven*

- **Monetary policies** around the world are diverging

- **Geopolitical risks** are on the rise in the Eurozone, Russia, and the Middle East

- **Currency values** are moving in different directions, and

- **Demand for labor** is evolving as the economy is buffeted by technological change

Let's take a closer look at the last item a little more closely …
Technology adoption is faster

Time to reach 50 million users

- Telephone: 75 years
- Radio: 38 years
- TV: 13 years
- Internet: 4 years
- Facebook: 3.5 years
- Angry birds: 35 days

Source: Citigroup Global Perspectives, UBS CIO WMR, as of April 2015
Triggering some creative destruction

In music …

Music sales on physical media

2004
- 800M units
- $12.3B in sales

2008
- 400M units
- $7.4B in sales

Source: Brynjolfsson and McAfee, The Second Machine Age, UBS CIO WMR, as of April 2015
Creative destruction

In books …

Amazon.com
2,000,000 titles

Barnes & Noble
NYC Flagship store: 40,000 titles

Source: Brynjolfsson and McAfee, The Second Machine Age, UBS CIO WMR, as of April 2015
Creative destruction

In photography …

- Through 2014, there were 3.5 trillion photographs taken since the first image was captured in Paris in 1838

- 10% of that total were taken in the last 12 months

- Eastman Kodak employed 145,300 employees and had a market share of 90% at its peak

- The company invented the digital camera in 1975 but shelved the idea

- Today 2.5 billion people have the capability of taking digital photographs and Kodak is a shadow of its former self
# Economic Drivers in an Era of Accelerating Technological Change

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<th>Intellectual property</th>
<th>Efficiency</th>
<th>Business model</th>
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<tr>
<td>• Patents</td>
<td>• Automation – auto assembly</td>
<td>• User generated content</td>
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<td>• Copyrights</td>
<td>• Self service – airline check-in</td>
<td>– Yelp, Trip Advisor</td>
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<td></td>
<td>• Mobility – RFID, airline bag tags</td>
<td>• On-line delivery of services</td>
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<td>– Amazon.com</td>
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Creating winners and losers

1990

Big 3 Automakers

Employees: 1.2 million
Market Cap: $36B

2015

Big 3 Tech Companies

Employees: 137,000
Market Cap: $1.3T

Source: Citigroup Global Perspectives, UBS CIO WMR, as of April 2015
Are we measuring economic activity properly?

**Question**
How much would you pay (or more accurately, would have paid) for services now available for free on the Internet?

**Answer**
In a McKinsey survey, the answer was: $50 per month or an estimated $35 billion annually.

Source: Brynjolfsson and McAfee, The Second Machine Age, UBS CIO WMR, as of April 2015
Squeezing the middle class and altering labor demand

<table>
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<th>In high demand</th>
<th>In less demand</th>
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<tr>
<td>Engineers</td>
<td>Bookkeepers</td>
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<tr>
<td>Plumbers</td>
<td>Bank tellers</td>
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<tr>
<td>Electricians</td>
<td>Billing clerks</td>
</tr>
<tr>
<td>Dentists</td>
<td>Telephone operators</td>
</tr>
<tr>
<td>Gardeners</td>
<td>Assembly line workers</td>
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</table>
Factors driving rates in the United States

- Subdued inflation
- The flight to safety
- A strengthening dollar
- ECB engages in QE
- Portfolio rebalancing
- Harsh winter slows growth

- Unemployment rate falls
- Private sector job creation

Source: UBS CIO WMR, as of April 2015
A low inflation rate encourages patience by the Fed
And crude oil prices decline, a net positive for the US

North American oil production
In 1,000 barrels per day

Crude remains under pressure
WTI crude price

Source: Bloomberg, UBS CIO WMR, as of 8 April 2015
But alters the outlook for the Eurozone, Russia, and Middle East

Great default looms, exit risk moderate but rising
Greek 10-year government bond yield

Russian equity market and the ruble
Historical levels

Source: Bloomberg, UBS CIO WMR, as of 8 April 2015
Meanwhile, while central bank assets have increased …

**Total assets of global central banks**

$ in billions

Source: Bloomberg, UBS CIO WMR, as of 8 April 2015
… global monetary policies are now diverging
The economic expansion in the US appears durable …

Payrolls have continued to trend higher despite the recent data

US non-farm payrolls

Source: Bloomberg, UBS CIO WMR, as of 8 April 2015
… and puts the Fed is on path towards normalization

Source: Bloomberg, UBS CIO WMR, as of 8 April 2015
... leaving the front end of the curve more exposed ...
... as investors expect the Treasury curve to flatten
Total return by fixed income sector

Source: BofAML, Bloomberg, UBS CIO WMR, as of 6 April 2015

- S&P 500
- Taxable FI Agg
- Munis
- Build America Bonds
- Emerging Markets
- Preferreds
- High Yield
- Investment Grade
- Agencies
- TIPs
- Treasuries

2015 YTD TR vs 2014 TR

Source: BofAML, Bloomberg, UBS CIO WMR, as of 6 April 2015
Yields have continued to trend lower

10 year Treasury yields
Average yield per year, in %

Source: Bloomberg, UBS CIO WMR, as of 8 April 2015
Biggest challenge: where to find income?

Yield-to-worst
Yield, in percent

Source: BofAML, UBS CIO WMR, as of 6 April 2015
The zero rate policy fuels higher volatility ...

Volatility levels and Average over the past 12 years

- The number of times volatility has risen above the average has been greater post crisis.

Pre-Crisis vs. Post Crisis

Source: Bloomberg, UBS CIO WMR, as of 9 February 2015
... but the next tightening cycle should be more gradual

Source: Bloomberg, UBS CIO WMR, as of 7 April 2015
… and a slower rise in rates should boost fixed income returns

Total return of various fixed income spread product during the actual dates of tightening using 1, 2, and 3 year projections with rising rates and fed funds

Source: UBS CIO WMR, as of 20 March 2015
Our Outlook: "Will, Won't, Might"

- Will happen
  - Global growth continues, led mainly by developed economies
  - The Fed tightens gradually while other central banks ease
  - The US dollar strengthen just a little more – then trades in a narrow range
  - European equities get a boost from a lower euro

- Won't happen
  - Inflation becomes a global problem
  - The Federal Reserve tightens monetary policy too soon, too much, too fast
  - The S&P 500 delivers better than average returns without volatility

- Might happen
  - Structural reforms in EM lead to better earnings outlook & investor sentiment
  - Long-term interest rates don't budge even if Fed raises the short end
  - European economic growth accelerates, providing support to the euro

Source: UBS CIO WMR, as of 31 March 2015
Preferred investment views

- **Most preferred**
  - US small caps
  - Eurozone
  - The rising Millennials
  - E-Commerce
  - US capex
  - Cancer therapeutics

- **Least preferred**
  - Emerging Markets (↗)
  - UK (↘)

- **Portfolio weightings**

  ![Portfolio Weightings Diagram]

Source: WMA Asset Allocation Committee (AAC) and UBS CIO WMR, as of 23 April 2015

Note: Portfolio weightings are for USD-based moderate risk profile, taxable account. For portfolio weights related to other risk profiles please see the flagship publication *UBS House View*.
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