THE FED’S CONUNDRUM PART III:
RESPONDING TO A POST-BREXIT WORLD

Highlights

• Over the past week, a number of clients have reached out inquiring about the potential impact to the U.S. economy in the wake of the UK referendum to exit the EU. As we’ve remarked previously, in a low growth, low interest rate environment, the global economy has less cushion to absorb downside risks emanating from the data and political events. This leaves financial markets more susceptible to bouts of volatility or mini-cycles as political events unfold.

• We took a rigorous approach to looking at the downstream impact to the U.S. economy and applied reasonably conservative assumptions. In doing so, there is some reassurance that the U.S. should remain resilient, with the most likely channels of weaker growth coming through exports and business investment, and some offsetting influences via household spending.

• The annual growth forecasts was only downgraded by 0.1 percentage points in 2016 and 2017 to 1.8% and 2.0%, respectively. This embeds a 0.4 percentage point (annualized) hit in the second half of this year. The global adjustment to a weaker UK and more fragile European Union is expected to culminate in world growth of 2.9% in 2016 and 3.2% in 2017 (down from 3.4% previously)

• Futures markets have priced out Federal Reserve rate hikes until 2018. This expectation has gone too far. While increased global risks may stall the Fed from raising rates this year, steady growth and gradually higher inflation keep two rate hikes in play for 2017.

• A return to market stability in the months ahead in concert with ongoing progress in the U.S. labor market may be all that is required for the Fed to sneak in a hike in December (as it did in 2015), or in early 2017.

Our Quarterly Economic Forecast published on June 16th was premised on an assumption that the UK would vote to remain within the European Union. Under that assumption, we expected continued modest economic growth in the United States, led by consumer spending and housing investment, with enough progress on unemployment and inflation for the Federal Reserve to continue to gradually normalize monetary policy.

We outlined our initial thoughts on the impact of the Brexit vote in a note published last week. This report takes an in-depth look at potential spillovers on the U.S. economic outlook and our expectations for monetary policy. A key caveat to readers is that it is still early days and both the timing (and even certainty) of a UK exit from the EU remains very much up in the air. Much of the pass-through impact to the American economy reflects assumptions related to financial markets and businesses operating under a thicker cloud of uncertainty.

Importantly, the Brexit vote will not likely pull the U.S. into recession. However, an environment that leads to a persistently stronger trade-weighted dollar, heightened financial uncertainty, and negative risk sentiment will likely weigh on near-term growth. Applying conservative assumptions on this front, our
projection for real GDP growth over the second half of this year is reduced by 0.4 percentage points annualized (Chart 1). This equates to shaving just 0.1 percentage points off annual average growth in both 2016 and 2017 to 1.8% and 2.0%, respectively. The dynamics largely play out through reduced trade and business investment, which are partially offset by greater consumer spending and housing investment under the following assumptions:

- Trade-weighted global growth is reduced by 0.2 percentage points over the next two years
- The broad trade-weighted dollar rises 3% by the end of this year (relative to our previous expectation)
- The equity risk premium rises 50 basis points in the third quarter, corresponding to a higher CBOE Volatility Index in the quarter, before gradually normalizing
- Treasury yields maintain a lower profile than our previous forecast, with the 10-year yield sustaining roughly a 50 basis point gap
- Incomplete pass-through of lower government yields to mortgage rates of roughly 35 basis points, which still offers an offsetting positive impact on housing and consumption

One of the more notable changes to the outlook occurred in interest rates and monetary policy. At the long end of the curve, flight-to-safety purchases of U.S. Treasuries initially pushed the 10-year bond yield close to all-time lows of around 1.4%. At the short end, rates similarly dived, driven by expectations that have pushed the next full pricing of a rate hike by the Federal Reserve into 2018, from early 2017 previously (Chart 2). Although yields have edged up from the initial knee-jerk market reaction, the ongoing state of uncertainty in Europe alongside many moving political parts lends a bias toward more persistent downward pressure on U.S. Treasuries than prior to the Brexit vote.

As it has for a long time, the Fed will have to fight against market expectations for rate hikes that are removed from the fundamentals within the domestic U.S. economy. While the Brexit vote has quashed any possibility that the Federal Reserve would raise rates this summer and likely pushes the first hike into 2017, domestic growth continues to augur for a rate hike earlier than markets have priced.

The market’s knee-jerk reaction to Brexit has some parallel to August and September of last year, when China’s surprise currency revaluation led to an intensification of market volatility and downgrades to global growth expectations. During that episode, markets re-priced the next Fed rate hike to occur in mid-2016. But, it subsequently took place in December 2015 when the U.S. economy proved resilient and initial market fears subsided. The political uncertainty and potential economic impacts to Europe from the UK referendum vote are likely to be longer lasting in nature, but the domestic dynamics in the U.S. should ultimately prove to be resilient.

Federal Reserve delayed, but not done

The Fed’s conundrum – how to balance domestic factors against fragile global conditions – remains the central theme of the economic and financial outlook. We have long argued that in a low growth, low interest rate global economy, there is a greater propensity for mini-cycles of volatility due to unfavorable data surprises or, in this case, event risk.
Likewise, international developments have gained the importance of a de facto third mandate for the Federal Reserve. Chair Yellen has made repeated mention that the Fed must be responsive to international financial conditions, including in her recent testimony to Congress. Especially during periods of heightened global volatility, the Fed must consider setting policy with an eye to ensuring that global financial markets do not lurch into a financial crisis. Even without major changes to the economic outlook, this risk management framework is likely to prevail over the next several meetings, especially in relation to uncertainty around the final outcome.

**Economic outlook is for continued modest growth, even as uncertainty weighs on business investment**

The Fed’s position as the global central banker is amplified by the continued divergence in economic fundamentals between the U.S. and the rest of the world. The UK’s vote to leave the EU does not change this paradigm, and may in fact worsen it.

Whether or not it meets the technical definition of recession, the UK economy is likely to stagnate over the next two years with growth falling into sub 1.0% territory in 2017. Growth will also be weaker in the Eurozone, likely by 0.3 percentage points in 2017 relative to our previous outlook. Japan will also be weaker, mainly on currency strength. Finally, EMs will feel the hit through reduced trade flows with Europe and capital outflows in a more risk averse world (Chart 3).

Consider now how the shock will propagate through the U.S. economy. The most immediate outcome of the vote was an exchange rate adjustment. The UK pound fell close to 12% against the U.S. dollar on June 24th. Other major currencies also depreciated against the dollar with the exception of the Japanese Yen, which strengthened. On a trade-weighted basis, the dollar has risen 2% since the Brexit vote (Chart 4). By the end of the third quarter, we anticipate the dollar to be 3% higher than our previous assumption. In combination with weaker global growth, the widening trade deficit is likely to shave around 0.2 percentage points off real GDP growth over the second half of this year relative to our previous outlook.

We are concerned that one of the bigger impacts on growth could come through the investment channel. Business fixed investment has been a weak spot for the outlook, weighed down by an elevated dollar and a lower trajectory on global growth. However, the American economy appeared to be reaching a pivot point where wage growth acceleration would incent businesses to substitute towards more investment. By raising the level of capital per worker, productivity gains would offset the upward trend in wages and the erosion in profit growth. This is the markings of a more virtuous cycle that could maintain GDP growth even as the labor market approached full employment and job growth slowed in line with underlying demographics.

However, should the UK referendum elevate global risk aversion, it will layer on yet another reason for businesses to be cautious on investment. Alongside potential spillovers from the disruption of capital expenditures globally, this may stunt or prevent the virtuous circle from taking hold in America.

Global risk aversion feeds through to investment by raising the cost of capital both through a higher equity risk
premium and higher corporate bond spreads. With the assumptions we outlined at the outset, this reduces business investment growth in our macro models by around 2.5 percentage points over the second half of this year and cuts 0.2 percentage points from annualized growth. However, given the level of uncertainty, we have applied fairly conservative assumptions.

**Lower borrowing costs for households provide an offset**

The good news is that other sectors of the economy are likely to see stronger growth through a reduction in borrowing costs to households. We believe lower yields will be a more persistent theme than our prior forecast due to global financial linkages and political uncertainty abroad that will keep U.S. Treasuries as a favored safety-bid. As such, U.S. 10-year yields could average 1.4% through the third and fourth quarters of this year, down as much as 60-basis points from our pre-Brexit projection. Mortgage rates and other consumer lending rates, which are benchmarked off Treasuries, are not likely to fall quite as much, but as long as risk spreads don’t widen considerably for these products, the result will be lower lending costs for households (Chart 5).

This raises the outlook for housing investment and durable goods spending – two sectors already acting as a key catalyst to growth. Importantly, the U.S. financial sector is in strong health, enabling the decline in U.S. rates to filter through to consumer borrowing costs. The results of the recently released OCC and Federal Reserve stress tests reaffirmed that U.S. banks are adequately capitalized even in the event of a much more severe economic scenario. This will limit downside risks and may even present some upside.

Taking all the assumptions in hand, economic growth in the second half of this year would come in modestly below 2.0%. This follows growth in the second quarter of 2.7%, and 1.1% in the first quarter. For the year as a whole, expect annual average real GDP growth of 1.8%, rising to 2.0% in 2017. As can be seen in the projections, these are not strong pass-through impacts to the U.S., but do maintain GDP growth running closer to trend speed.

Given the unprecedented nature of the current environment and the fact that the European political environment remains unresolved, we believe these forecasts fall on the conservative side. In the event that the shock to financial market confidence proves more fleeting, or there is a favorable movement in business sentiment or activity from the UK and EU towards the United States, the impacts will be more benign. We have also been cautious in assuming that the negative economic shock if heavily front loaded over the next several quarters. Alternatively, it could materialize in a slow, but persistent, bleed in Europe.

**Continued economic growth still augurs for gradual policy rate hikes**

At the end of the day, the UK referendum and subsequent market response is akin to merely a flesh wound to the U.S. and not a mortal blow. As in previous forecasts, strength will be focused on domestic areas of the economy. Even with slower business investment, the consumer side of domestic demand will remain buoyant, supported by sturdy wage growth and low borrowing costs. Nothing drives this point home more than looking at the actual performance of
consumer spending. The second quarter is tracking above 4% (annualized), and through all ups and down of financial market sentiment over the past two years, consumer spending has held firmly in a 2-3% range (Chart 6). As a result, there is still a case for the Federal Reserve to raise interest rates.

So, what would it take to continue on the path to policy normalization? The key elements to watch for are inflation and inflation expectations. The Fed will not hike into an environment of falling inflation expectations. Market-based measures of inflation expectations were already moving lower prior to the UK vote and currently sit near record lows (Chart 7). This appears to be informed more by the global environment than anything that is happening domestically in the United States. In this regard, the rise in global uncertainty and strengthening dollar are unlikely to help.

Still, as we have written previously, the dollar’s impact on actual inflation is relatively modest. The nearly 20% move in the trade-weighted dollar over the last two years dwarfs what is now on deck (see Chart 4, page 3), which limits the downside to the inflation outlook. Even with a higher dollar, inflation is still likely to begin trending upwards by the end of this year and through 2017. Headline inflation will move up alongside steadier oil prices, which are unlikely to fall back to the lows reached early this year due to the supply response that has taken place since then.

The same holds true of core inflation, where tighter labor markets, higher wage pressures and narrowing corporate profit margins puts the bias in terms of domestic pressures on the upside rather than the downside. On the latter influence, remember the point made earlier about the potential for businesses to stunt investment initiatives due to global risk aversion? This could actually translate into more, rather than less inflationary pressures, as firms respond to wage pressures and deteriorating profit margins by raising consumer prices against a healthy consumer backdrop.

All of these factors suggest that markets are likely over-attributing the degree of downside pressures to the U.S. economy related to events in Europe and potential risk aversion. Ultimately, the Fed must set monetary policy to its main mandate of employment and inflation stability.

The bottom line

Even if it is a few quarters later than anticipated prior to the Brexit result, there is a good case that rate hikes will occur before financial markets are currently expecting. A return to market stability in the months ahead, especially should it occur in concert with ongoing progress in the U.S. labor market, may be all that is required for the Fed to sneak in a rate hike in December (as it did in 2015), or in early 2017.

We are in a low growth and low yield world, and this leaves financial markets subject to volatility due to data sensitivity. But, relative to its peers, the U.S. economy is much better positioned on economic fundamentals. At the end of the day, we do not believe the UK referendum changes the broader economic story in America. And, the increase in volatility that occurred in August and September of last year is a reminder that financial markets tend to move too far along the risk curve on pricing out rate hikes, only to backtrack as fundamentals return to the forefront.

The Fed knows this is the world they operate in and continues to signal an upward bias on rates within forward guidance. With only a modest downgrade to the U.S. outlook, this argues for a delay, but certainly not a write-off in rate hikes this year or next.
### U.S. ECONOMIC OUTLOOK:

**Period-Over-Period Annualized Per Cent Change Unless Otherwise Indicated**

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Annual Average</th>
<th>4th Qtr/4th Qtr</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1F</td>
</tr>
<tr>
<td>Real GDP</td>
<td>0.6</td>
<td>3.9</td>
<td>2.0</td>
<td>1.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Consumer Expenditure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durable Goods</td>
<td>1.7</td>
<td>3.6</td>
<td>3.0</td>
<td>2.4</td>
<td>1.5</td>
</tr>
<tr>
<td>Non-Res. Fixed Invest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Res. Structures</td>
<td>-7.4</td>
<td>6.3</td>
<td>-7.2</td>
<td>-5.1</td>
<td>-7.9</td>
</tr>
<tr>
<td>Equipment &amp; IPP*</td>
<td>4.3</td>
<td>3.5</td>
<td>5.5</td>
<td>-1.3</td>
<td>-5.5</td>
</tr>
<tr>
<td>Residential Construction</td>
<td>10.1</td>
<td>9.4</td>
<td>8.2</td>
<td>10.1</td>
<td>15.6</td>
</tr>
<tr>
<td>Govt. Consumption &amp; Gross Investment</td>
<td>-0.1</td>
<td>2.6</td>
<td>1.8</td>
<td>0.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Final Domestic Demand</td>
<td>1.7</td>
<td>3.7</td>
<td>2.9</td>
<td>1.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Exports</td>
<td>-6.0</td>
<td>5.1</td>
<td>0.7</td>
<td>-2.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Imports</td>
<td>7.1</td>
<td>3.0</td>
<td>2.3</td>
<td>-0.7</td>
<td>-0.5</td>
</tr>
<tr>
<td>Change in Private Inventories</td>
<td>112.8</td>
<td>113.5</td>
<td>85.5</td>
<td>78.3</td>
<td>68.3</td>
</tr>
<tr>
<td>Final Sales</td>
<td>-0.2</td>
<td>3.9</td>
<td>2.7</td>
<td>1.6</td>
<td>1.3</td>
</tr>
<tr>
<td>% of GDP</td>
<td>-2.6</td>
<td>-2.5</td>
<td>-2.7</td>
<td>-2.5</td>
<td>-2.7</td>
</tr>
<tr>
<td>Pre-tax Corporate Profits including IVA&amp;CCA</td>
<td>-21.1</td>
<td>14.8</td>
<td>-6.2</td>
<td>-27.7</td>
<td>7.5</td>
</tr>
<tr>
<td>% of GDP</td>
<td>11.4</td>
<td>11.6</td>
<td>11.4</td>
<td>10.4</td>
<td>10.6</td>
</tr>
<tr>
<td>GDP Deflator (Y/Y)</td>
<td>1.0</td>
<td>1.0</td>
<td>0.9</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Nominal GDP</td>
<td>0.8</td>
<td>6.1</td>
<td>3.3</td>
<td>2.3</td>
<td>1.4</td>
</tr>
<tr>
<td>Labor Force</td>
<td>1.6</td>
<td>0.5</td>
<td>-0.3</td>
<td>1.1</td>
<td>3.6</td>
</tr>
<tr>
<td>Employment</td>
<td>2.1</td>
<td>1.9</td>
<td>1.9</td>
<td>2.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Change in Empl. ('000s)</td>
<td>731</td>
<td>653</td>
<td>670</td>
<td>721</td>
<td>659</td>
</tr>
<tr>
<td>Unemployment Rate (%)</td>
<td>5.6</td>
<td>5.4</td>
<td>5.2</td>
<td>5.0</td>
<td>4.9</td>
</tr>
<tr>
<td>Personal Disp. Income</td>
<td>1.9</td>
<td>4.9</td>
<td>4.5</td>
<td>3.7</td>
<td>4.3</td>
</tr>
<tr>
<td>Pers. Saving Rate (%)</td>
<td>5.2</td>
<td>5.0</td>
<td>5.0</td>
<td>5.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Cons. Price Index (Y/Y)</td>
<td>-0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Core CPI (Y/Y)</td>
<td>1.7</td>
<td>1.8</td>
<td>1.8</td>
<td>2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Core PCE price index (Y/Y)</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Housing Starts (mns)</td>
<td>0.99</td>
<td>1.16</td>
<td>1.16</td>
<td>1.14</td>
<td>1.15</td>
</tr>
<tr>
<td>Real Output per hour (y/y)**</td>
<td>0.7</td>
<td>0.9</td>
<td>0.6</td>
<td>0.6</td>
<td>0.7</td>
</tr>
</tbody>
</table>


---

**June 30, 2016**
## INTEREST RATE OUTLOOK

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>Fed Funds Target Rate</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>3-mth T-Bill Rate</td>
<td>0.03</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>2-yr Govt. Bond Yield</td>
<td>0.56</td>
<td>0.64</td>
<td>0.64</td>
</tr>
<tr>
<td>5-yr Govt. Bond Yield</td>
<td>1.37</td>
<td>1.63</td>
<td>1.37</td>
</tr>
<tr>
<td>10-yr Govt. Bond Yield</td>
<td>1.94</td>
<td>2.35</td>
<td>2.06</td>
</tr>
<tr>
<td>30-yr Govt. Bond Yield</td>
<td>2.54</td>
<td>3.11</td>
<td>2.87</td>
</tr>
<tr>
<td>10-yr-2-yr Govt Spread</td>
<td>1.38</td>
<td>1.71</td>
<td>1.42</td>
</tr>
</tbody>
</table>

F: Forecast by TD Bank Group as at June 2016; All forecasts are end-of-period; Source: Bloomberg, Bank of Canada, Federal Reserve.

*Spot rate on June 29, 2016.

## FOREIGN EXCHANGE OUTLOOK

<table>
<thead>
<tr>
<th>Currency</th>
<th>Exchange rate</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Canadian dollar</td>
<td>CAD per USD 1.27</td>
<td>1.25</td>
<td>1.34</td>
<td>1.38</td>
</tr>
<tr>
<td>Japanese yen</td>
<td>JPY per USD 120</td>
<td>122</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Euro</td>
<td>USD per EUR 1.07</td>
<td>1.12</td>
<td>1.12</td>
<td>1.09</td>
</tr>
<tr>
<td>U.K. pound</td>
<td>USD per GBP 1.49</td>
<td>1.57</td>
<td>1.51</td>
<td>1.48</td>
</tr>
<tr>
<td>Swiss franc</td>
<td>CHF per USD 0.97</td>
<td>0.94</td>
<td>0.98</td>
<td>1.00</td>
</tr>
<tr>
<td>Australian dollar</td>
<td>USD per AUD 0.8</td>
<td>0.8</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>NZ dollar</td>
<td>USD per NZD 0.75</td>
<td>0.68</td>
<td>0.64</td>
<td>0.68</td>
</tr>
</tbody>
</table>

All forecasts are end-of-period. Source: Federal Reserve, Bloomberg, TDDBG.

## COMMODITY PRICE OUTLOOK

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>Crude Oil (WTI, $US/bbl)</td>
<td>49</td>
<td>58</td>
<td>46</td>
</tr>
<tr>
<td>Natural Gas ($US/MMBtu)</td>
<td>2.87</td>
<td>2.78</td>
<td>2.75</td>
</tr>
<tr>
<td>Gold ($US/troy oz.)</td>
<td>1218</td>
<td>1191</td>
<td>1124</td>
</tr>
<tr>
<td>Silver (US$/troy oz.)</td>
<td>16.7</td>
<td>16.4</td>
<td>14.9</td>
</tr>
<tr>
<td>Copper (cents/lb)</td>
<td>264</td>
<td>275</td>
<td>238</td>
</tr>
<tr>
<td>Nickel (US$/lb)</td>
<td>6.51</td>
<td>5.94</td>
<td>4.78</td>
</tr>
<tr>
<td>Aluminum (cents/lb)</td>
<td>82</td>
<td>79</td>
<td>72</td>
</tr>
</tbody>
</table>

F: Forecast by TD Bank Group as at June 2016. E: Estimate. All forecasts are period averages. Source: Bloomberg, USDA (Haver).
GLOBAE ECONOMIC OUTLOOK

<table>
<thead>
<tr>
<th>Region</th>
<th>2014 Share* (%)</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>100.0</td>
<td>3.4</td>
<td>3.0</td>
<td>2.9</td>
<td>3.2</td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>19.3</td>
<td>2.4</td>
<td>2.3</td>
<td>1.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Canada</td>
<td>15.9</td>
<td>2.4</td>
<td>2.4</td>
<td>1.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Mexico</td>
<td>2.0</td>
<td>2.3</td>
<td>2.6</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>European Union (EU-28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eurozone (EU-19)</td>
<td>17.1</td>
<td>1.4</td>
<td>1.9</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Germany</td>
<td>12.1</td>
<td>0.9</td>
<td>1.6</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>France</td>
<td>3.4</td>
<td>1.6</td>
<td>1.5</td>
<td>1.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Italy</td>
<td>2.4</td>
<td>0.2</td>
<td>1.2</td>
<td>1.5</td>
<td>1.3</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2.0</td>
<td>-0.3</td>
<td>1.4</td>
<td>0.8</td>
<td>1.0</td>
</tr>
<tr>
<td>EU accession members</td>
<td>2.4</td>
<td>2.9</td>
<td>2.3</td>
<td>1.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Asia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>42.1</td>
<td>5.1</td>
<td>4.6</td>
<td>4.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Asian NIC's</td>
<td>3.4</td>
<td>3.4</td>
<td>1.9</td>
<td>2.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>0.4</td>
<td>2.7</td>
<td>2.4</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Korea</td>
<td>1.6</td>
<td>3.3</td>
<td>2.6</td>
<td>2.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Singapore</td>
<td>0.4</td>
<td>3.3</td>
<td>2.0</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Taiwan</td>
<td>1.0</td>
<td>3.9</td>
<td>0.7</td>
<td>1.8</td>
<td>1.9</td>
</tr>
<tr>
<td>Russia</td>
<td>3.5</td>
<td>0.7</td>
<td>-3.7</td>
<td>-1.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Australia &amp; New Zealand</td>
<td>1.2</td>
<td>2.7</td>
<td>2.7</td>
<td>3.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Developing Asia</td>
<td>29.7</td>
<td>6.7</td>
<td>6.5</td>
<td>6.4</td>
<td>6.2</td>
</tr>
<tr>
<td>ASEAN-4</td>
<td>4.8</td>
<td>4.5</td>
<td>4.6</td>
<td>4.6</td>
<td>4.7</td>
</tr>
<tr>
<td>China</td>
<td>16.5</td>
<td>7.3</td>
<td>6.9</td>
<td>6.4</td>
<td>5.9</td>
</tr>
<tr>
<td>India**</td>
<td>6.7</td>
<td>7.0</td>
<td>7.3</td>
<td>7.3</td>
<td>7.9</td>
</tr>
<tr>
<td>Central/South America</td>
<td>6.8</td>
<td>1.0</td>
<td>-1.0</td>
<td>-0.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Brazil</td>
<td>3.0</td>
<td>0.1</td>
<td>-3.8</td>
<td>-3.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Other Developing</td>
<td>13.7</td>
<td>3.3</td>
<td>2.5</td>
<td>2.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Other Advanced</td>
<td>1.0</td>
<td>2.2</td>
<td>1.6</td>
<td>1.6</td>
<td>1.8</td>
</tr>
</tbody>
</table>

*Share of world GDP on a purchasing-power-parity (PPP) basis.
Forecast as at June 30, 2016. **Forecast for India refers to fiscal year.
Source: IMF, TD Economics.

ECONOMIC INDICATORS: G-7 AND EUROPE

<table>
<thead>
<tr>
<th>Region</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP (Annual per cent change)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G-7 (31.9%)*</td>
<td>1.8</td>
<td>1.8</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>U.S.</td>
<td>2.4</td>
<td>2.4</td>
<td>1.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Japan</td>
<td>-0.1</td>
<td>0.6</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Eurozone</td>
<td>0.9</td>
<td>1.6</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Germany</td>
<td>1.6</td>
<td>1.5</td>
<td>1.5</td>
<td>1.3</td>
</tr>
<tr>
<td>France</td>
<td>0.7</td>
<td>1.2</td>
<td>1.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Italy</td>
<td>0.5</td>
<td>1.4</td>
<td>0.8</td>
<td>1.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2.9</td>
<td>2.3</td>
<td>1.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Canada</td>
<td>2.5</td>
<td>1.1</td>
<td>1.2</td>
<td>1.9</td>
</tr>
<tr>
<td>G-7</td>
<td>1.6</td>
<td>0.1</td>
<td>1.4</td>
<td>2.6</td>
</tr>
<tr>
<td>U.S.</td>
<td>2.7</td>
<td>0.8</td>
<td>0.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Japan</td>
<td>0.4</td>
<td>0.0</td>
<td>0.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Eurozone</td>
<td>0.8</td>
<td>0.1</td>
<td>0.3</td>
<td>1.4</td>
</tr>
<tr>
<td>Germany</td>
<td>0.6</td>
<td>0.1</td>
<td>0.3</td>
<td>1.3</td>
</tr>
<tr>
<td>France</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Italy</td>
<td>1.5</td>
<td>0.0</td>
<td>0.9</td>
<td>3.1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1.9</td>
<td>1.1</td>
<td>1.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Canada</td>
<td>6.2</td>
<td>5.3</td>
<td>4.7</td>
<td>4.4</td>
</tr>
<tr>
<td>Japan</td>
<td>3.6</td>
<td>3.4</td>
<td>3.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Eurozone</td>
<td>11.6</td>
<td>10.9</td>
<td>10.2</td>
<td>9.9</td>
</tr>
<tr>
<td>Germany</td>
<td>5.0</td>
<td>4.6</td>
<td>4.3</td>
<td>4.5</td>
</tr>
<tr>
<td>France</td>
<td>10.3</td>
<td>10.4</td>
<td>10.1</td>
<td>10.0</td>
</tr>
<tr>
<td>Italy</td>
<td>12.6</td>
<td>11.9</td>
<td>11.5</td>
<td>11.3</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6.1</td>
<td>5.3</td>
<td>5.1</td>
<td>5.5</td>
</tr>
<tr>
<td>Canada</td>
<td>6.9</td>
<td>6.9</td>
<td>7.1</td>
<td>7.1</td>
</tr>
</tbody>
</table>

*Share of 2014 world gross domestic product (GDP) at PPP.
Forecast as at June 30, 2016
Source: National statistics agencies, TD Economics.

This report is provided by TD Economics. It is for informational and educational purposes only as of the date of writing, and may not be appropriate for other purposes. The views and opinions expressed may change at any time based on market or other conditions and may not come to pass. This material is not intended to be relied upon as investment advice or recommendations, does not constitute a solicitation to buy or sell securities and should not be considered specific legal, investment or tax advice. The report does not provide material information about the business and affairs of TD Bank Group and the members of TD Economics are not spokespersons for TD Bank Group with respect to its business and affairs. The information contained in this report has been drawn from sources believed to be reliable, but is not guaranteed to be accurate or complete. This report contains economic analysis and views, including about future economic and financial markets performance. These are based on certain assumptions and other factors, and are subject to inherent risks and uncertainties. The actual outcome may be materially different. The Toronto-Dominion Bank and its affiliates and related entities that comprise the TD Bank Group are not liable for any errors or omissions in the information, analysis or views contained in this report, or for any loss or damage suffered.