Section A: Introduction

- This report provides the Board with an overview of the macroeconomic environment, portfolio performance, and the activities of the Investment Committee since the Board last met in June 2017.

- In calendar year 2017, the Committee met 4 times (February, May, August and November). As mentioned in the June report, the Investment Committee charter underwent a review in 2016 as part of a broader review associated with the Board and Committee self-evaluation process. The Investment Committee charter required additional edits in order to keep it consistent with other Gavi charters. The Investment Committee approved the editorial changes in August.

- The global economy sustained its growth trajectory into the second half of 2017 on the back of solid corporate earnings, low unemployment and improving consumer confidence levels. The IMF’s October 2017 World Economic Outlook publication lifted both its 2017 and 2018 forecasts of global economic growth by 0.1% to 3.6% and 3.7% respectively, well ahead of 3.2% achieved in 2016.

- After the 2008 financial crisis, major central banks pursued exceptionally loose monetary policy to encourage borrowing, increase risk appetite and raise asset prices. In addition, they purchased bonds to flood their economies with liquidity, which resulted in massive increases in their balance sheets. With economic recovery firmly in place, the major central banks have begun to increase rates and/or reduce monetary stimulus programmes. Since the last Gavi Alliance Board meeting in June, major central banks have announced the following:
  - The US Federal Reserve began to reduce its US$ 4.5 trillion balance sheet;
  - The European Central Bank will reduce the amount of its monthly bond purchases but also extend the duration of this QE programme;
  - The Bank of England increased interest rates by 0.25%, the first rise in a decade.

- The change in leadership of the US Federal Reserve in February 2018 is another development being closely watched by investors. The outgoing Federal Reserve chairwoman Janet Yellen and the incoming Federal
Reserve chairman Jerome Powell appear to have similar policymaking priorities, and markets have remained unperturbed. However, it will be the actual decisions and announcements coming out of the Fed when Mr Powell assumes his new role that will matter.

- The Investment Committee remains cautious on current market volatility levels that are near record lows and asset prices that are near historic highs. Investors who think the markets’ strength is primarily a reflection of the solid global economy see little to fear. However it is likely that “normal” market functioning is being suppressed by central bank flows which are now reducing. Thus far in 2017, financial markets have been immune to geopolitical or other normally market moving events. This indifference is not sustainable in the long term, particularly as positions have grown increasingly crowded as the rally has progressed. Investors such as Gavi should not become accustomed to such low volatility levels or indeed the extent and consistency of the returns which have been generated in the Long Term Portfolio this year.

- At the Investment Committee’s November meeting, the consultant NEPC presented an independent risk assessment of Gavi’s long-term investment portfolio. This has now become a valuable annual review. NEPC uses 3 methodologies (asset allocation-based, sensitivity-based, and portfolio-based) to evaluate overall portfolio risk. The conclusion was that current target allocations were still appropriate and NEPC made no structural recommendations. NEPC also performed a Value-at-Risk (VAR) analysis on the portfolio. VAR is a probability-based measure of potential loss. This showed a potential loss scenario of 8% in a one standard deviation event, which is meaningfully lower than that of a traditional 60% equity/40% fixed income institutional portfolio (13.3% loss). Furthermore, NEPC noted aspects of portfolio implementation cannot be fully configured into Value-at-Risk, so Gavi’s inclusion of investment managers that focus on downside risk should also help to buffer portfolio volatility. This was indeed the case in January 2016 when portfolio marked-to-market losses were well below what the models predicted.

- The Investments team conducts an annual risk rating of individual managers it oversees, and the outcomes determine due diligence priorities for the following calendar year. While the ability of a manager to deliver solid performance is a positive consideration, the team takes a comprehensive approach to evaluating managers across a dozen risk factors in order to assign an overall risk rating. Example of such factors include the complexity of the investment, senior management stability, internal controls assessment and quality of service. At the November 2017 meeting, the Investment Committee reviewed the risk rating analyses and endorsed the team’s findings.

- The Chair update includes year-to-date September 2017 performance figures for the long-term and short-term portfolios overseen by the Investments team. As a reminder, Gavi uses both active and passive investment strategies.
The total portfolio reported for this update is US$ 2.1 billion, of which US$ 1.1 billion is invested in the short-term portfolio, and the remaining US$ 1.0 billion in the long-term portfolio. As a reminder, these figures do not include the UNICEF Procurement Account or IFFIm assets.

The short-term portfolio includes donor contributions that will not be spent within the next 6 to 9 months as well as redemption proceeds (pending reinvestment) from the long-term portfolio. The short term portfolio is invested in high quality, liquid strategies such as ultra-low and short duration fixed income. The 2017 year-to-date return of the short-term portfolio is 1.0%.

The long-term portfolio has four major allocations: Fixed income, equity, tactical, and multi-exposure. The major theme of the last two annual asset allocation and risk reviews remain consistent: Reduce directional exposures given high current valuations in favour of the absolute return oriented multi-exposure category which provide tactical and managerial flexibility to invest across different asset classes. The portfolio remains modestly underweight relative to its target multi-exposure category, and the Investments team continues to make progress in closing the gap.

Year-to-date through September 2017, the long-term portfolio outperformed its policy benchmark, 9.3% versus 7.7%. Preliminary results for October show a further gain of 0.7%. October year-to-date investment income generated for GAVI amounts to approximately US$ 94.6 million.

The long-term portfolio has more than half of its allocation to fixed income given Gavi’s conservative risk profile. On a composite basis, the fixed income allocation delivered 5.7% despite the low interest rate environment. The strongest performing allocation was equities, which delivered a composite performance of 17.9%. The Tactical and Multi-exposure categories have also performed solidly this year and have delivered 10.3% and 11.9% respectively.

The Investment Committee Chair report is attached in the form of a presentation as Annex A.

Annexes

Annex A: Investment Committee Chair report
INVESTMENT COMMITTEE CHAIR REPORT

BOARD MEETING
Stephen Zinser
29-30 November 2017, Vientiane, Lao PDR
Summary

• Macro Environment and Market Commentary
• Portfolio and Performance Review
• Key Highlights of 2H2017
• Key 2018 Priorities
Market Sentiment: Mixed

A broad run-up in asset valuations has left little low hanging fruit: Signs of moderating risk appetite have emerged.

Economic growth remains solid in the US, Europe (ex-UK), China and Japan. Major central banks have begun to pare back monetary stimulus and/or raise interest rates: The change in leadership of the US Federal Reserve will be under close scrutiny.

Geopolitical risk continues to be a factor: Market enthusiasm swept aside political risk this year but markets are beginning to reassess implications.
Market Commentary

**Equity markets:** European and US markets have performed well this year. Emerging markets, however, was the biggest contributor to the global equity rally.

**Fixed income:** Emerging markets and high yield fixed income have enjoyed solid performance. Moderating risk appetite and tight spreads will cap further gains.

**Currencies:** US dollar weakness has been the big surprise this year, losing 10.7% against the euro

**Commodities:** Higher demand due to stronger global economic growth and compliance with OPEC’s supply cuts have produced tighter oil supplies and higher prices.
Current economic expansion is one of the longest.

US Economic Expansions

Duration of U.S. expansions since 1945 (months, trough to peak)

March 1991: 120 months
February 1961: 106 months
Current (June 2009): 99 months
November 1982: 92 months
November 2001: 73 months
Average (post-WWII): 58 months
March 1975: 58 months
October 1949: 45 months
May 1954: 39 months
October 1945: 37 months
November 1970: 36 months
April 1958: 24 months
July 1980: 12 months
Shiller’s Price Earning Ratio

Source: Shiller US Stock Markets 1871-Present and CAPE Ratio produced by Yale School of Management, Data as of October 2017

Current US equity valuations among historic highs

Annex A

Board meeting
29-30 November 2017
Low Equity Volatility - Globally

Data as of 13 November 2017
Source: Chicago Board of Exchange
## Portfolio Objectives

<table>
<thead>
<tr>
<th>Short-term</th>
<th>Long-term</th>
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</thead>
<tbody>
<tr>
<td>• Maintain <strong>liquidity</strong> to meet anticipated operating requirements.</td>
<td>• Generate a <strong>positive real (after inflation) return</strong>.</td>
</tr>
<tr>
<td>• Provide for prudent diversification of investments to minimize credit and market risk exposure.</td>
<td>• Generate income for current spending.</td>
</tr>
<tr>
<td>• Generate income.</td>
<td>• Provide a prudent degree of <strong>growth</strong> in assets to support future spending.</td>
</tr>
<tr>
<td></td>
<td>• Provide for <strong>prudent diversification</strong> of investments to minimise correlation among investment strategies.</td>
</tr>
<tr>
<td></td>
<td>• Maintain liquidity to meet unanticipated operating requirements.</td>
</tr>
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<td></td>
<td>• Maintain overall portfolio volatility within acceptable risk levels.</td>
</tr>
</tbody>
</table>
Gavi Portfolio Allocation (US$ 2.1 B)\(^1\)

- **Fixed Income**: $534 M (26%)
- **Equity**: $192 M (9%)
- **Tactical**: $63 M (3%)
- **Multi-Exposure**: $165 M (8%)
- **Cash, low & short duration**: $1000 M (49%)
- **Currency hedge collateral**: $97 M (5%)

**Short-term portfolio**: $1,097 M

**Long-term portfolio**: $954 M

Data as of 30 September 2017

\(^1\) Excludes UNICEF Procurement account of $383 M and IFFIm assets.

\(^2\) Excludes $42.2 M in operating cash.

Annex A

Board meeting
29-30 November 2017
Long-Term Portfolio: Asset Allocation Ranges

Data as of 30 September 2017 (internal estimates)

Annex A
Through September 2017, the total portfolio generated net investment income of US$ 87.9 M, and since inception, US$ 527 M.

The preliminary October performance estimate for the long-term portfolio is +0.7% which brings YTD investment income to US$ 94.6 M.

<table>
<thead>
<tr>
<th>Portfolio returns</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term portfolio</td>
<td>6.6%</td>
<td>2.9%</td>
<td>4.2%</td>
<td>-1.5%</td>
<td>6.4%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Short-term portfolio</td>
<td>0.9%</td>
<td>0.4%</td>
<td>0.2%</td>
<td>0.4%</td>
<td>0.9%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

Data as of 30 September 2017
Source: internal estimates, short-term portfolio figures based on strategies managed by the Investments team
## Comparison of Indices Returns

<table>
<thead>
<tr>
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</tr>
<tr>
<td>Global Fixed Income</td>
<td>20.9%</td>
<td>16.2%</td>
<td>3.8%</td>
<td>36.4%</td>
<td>16.8%</td>
<td>11.1%</td>
<td>16.4%</td>
<td>23.6%</td>
<td>9.0%</td>
<td>0.1%</td>
<td>11.8%</td>
<td>17.2%</td>
</tr>
<tr>
<td>World IL Bonds</td>
<td>7.2%</td>
<td>11.2%</td>
<td>2.1%</td>
<td>18.9%</td>
<td>14.3%</td>
<td>5.5%</td>
<td>6.6%</td>
<td>2.9%</td>
<td>4.2%</td>
<td>(1.1%)</td>
<td>10.2%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Cash</td>
<td>6.9%</td>
<td>9.2%</td>
<td>0.5%</td>
<td>9.3%</td>
<td>6.7%</td>
<td>4.0%</td>
<td>5.6%</td>
<td>0.1%</td>
<td>3.8%</td>
<td>(1.5%)</td>
<td>8.4%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Global Equities</td>
<td>4.9%</td>
<td>7.9%</td>
<td>(6.3%)</td>
<td>8.8%</td>
<td>5.8%</td>
<td>0.1%</td>
<td>4.8%</td>
<td>(2.2%)</td>
<td>0.5%</td>
<td>(2.2%)</td>
<td>6.4%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Commodities</td>
<td>2.1%</td>
<td>5.0%</td>
<td>(35.6%)</td>
<td>8.0%</td>
<td>5.4%</td>
<td>(7.9%)</td>
<td>0.1%</td>
<td>(5.5%)</td>
<td>0.0%</td>
<td>(3.3%)</td>
<td>2.8%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Gavi LTP</td>
<td>1.4%</td>
<td>2.7%</td>
<td>(42.3%)</td>
<td>0.2%</td>
<td>0.1%</td>
<td>(13.3%)</td>
<td>(1.1%)</td>
<td>(9.5%)</td>
<td>(17.0%)</td>
<td>(24.7%)</td>
<td>0.3%</td>
<td>-2.9%</td>
</tr>
</tbody>
</table>

Data as of 30 September 2017
Source: Bloomberg, internal estimates

Annex A
Long-Term Portfolio Performance

Data as of 30 September 2017
Source: Bloomberg, internal estimates
(1) Barclays Multiverse is a broad, global fixed income index.
(2) MSCI ACWI is a broad, global equity index.

Gavi - Barclays Multiverse\(^1\) - Global Equities\(^2\)

<table>
<thead>
<tr>
<th>Period</th>
<th>% Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTD</td>
<td>-0.8%</td>
</tr>
<tr>
<td>YTD</td>
<td>6.6%</td>
</tr>
<tr>
<td>3YR Annualised</td>
<td>4.6%</td>
</tr>
<tr>
<td>5YR Annualised</td>
<td>4.4%</td>
</tr>
<tr>
<td>10.4%</td>
<td></td>
</tr>
</tbody>
</table>

*Board meeting
29-30 November 2017*
## Long-Term Portfolio Returns

<table>
<thead>
<tr>
<th>Exposure vs. Benchmark</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barclays Multiverse¹</td>
<td>0.8%</td>
<td>3.4%</td>
<td>0.9%</td>
<td>6.0%</td>
<td>5.7%</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSCI ACWI IMI</td>
<td>23.6%</td>
<td>3.8%</td>
<td>(2.2%)</td>
<td>8.4%</td>
<td>17.2%</td>
</tr>
<tr>
<td><strong>Tactical</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BofA Merrill US 1-Year Treasury²</td>
<td>--</td>
<td>5.1%³</td>
<td>(10.3%)</td>
<td>16.0%</td>
<td>10.3%</td>
</tr>
<tr>
<td><strong>Multi-exposure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-Month LIBOR + 5%⁴</td>
<td>(0.7%)</td>
<td>4.4%</td>
<td>(4.3%)</td>
<td>4.7%</td>
<td>11.9%</td>
</tr>
<tr>
<td><strong>Long-term portfolio</strong></td>
<td>2.9%</td>
<td>4.2%</td>
<td>(1.6%)</td>
<td>6.4%</td>
<td><strong>9.3%</strong></td>
</tr>
</tbody>
</table>

---

(1) From 1 March 2014 to present
(2) From 1 October 2014
(3) Inception date 30 May 2014
(4) Multi-Exposure benchmark not implemented until March 2016

Data as of 30 September 2017 (internal estimates)

Annex A

Board meeting
29-30 November 2017
## Key Highlights of 2H2017

### Long-Term Portfolio Allocation

The Committee approved recommendations to reduce US equity exposure in favour of non-US exposure, lower the fixed income credit allocation, and continue to add less correlated strategies that dampen volatility and directionality in the portfolio.

**Update:** The Committee approved activity throughout 2017 and into 1Q 2018.

### Annual NEPC Risk Review

In November 2017, the Committee reviewed portfolio exposures using Value-at-Risk (probability-based measure of potential loss) and investment manager correlations.

**Update:** Risks reviewed are acceptable in light of Gavi’s objectives.

### Risk Monitoring

Completed the following reviews: Two sets of quarterly compliance questionnaires, one semi-annual Socially Responsible Investment screening, and the annual risk ratings.

**Update:** These reviews provide additional insights into our investment managers beyond performance, and help to set priorities for 2018 due diligence activities.
Key 2018 Priorities

Maintain focus on risk
Be prepared for higher levels of volatility. Finalise allocations into less directional strategies.

Maintain robust monitoring practices
Gavi retains a limited number of investment managers in order to conduct in-depth due diligence throughout the life of the relationship.

SRI Policy
The Committee will continue to update and fine tune the policy given the changing landscape and preferences in responsible investing.
THANK YOU
APPENDIX
Investment Policies

Investment Policy Statement
(Detailed investment objectives, portfolio asset compositions, and performance review practices)

Asset Allocation Statement
(Identify asset allocation ranges and risk management limits)

SRI* Policy
(Demonstrate mission-based investments restrictions and portfolio monitoring process)

*Socially Responsible Investment
Long-Term Portfolio Evolution

(1) Conservative, US centric, short-term fixed income

(2) Launch of IFFIm extended investment horizon; added inflation hedge assets

(3) Further diversification into less correlated assets

(4) Added multi-exposure in May 2016.
Long-Term Portfolio Liquidity

- Liquid (daily & monthly): 75%
- Semi-liquid (quarterly): 22%
- Illiquid (1 year or more): 4%

Data as of 30 September 2017
Stability and Solvency

Assets Must Be Greater Than Programme Liabilities

$ Billions

Liabilities

Assets

Advance Market Commitment (AMC)\(^1\)
IFFIm pledges\(^1\)
Short-term portfolio (direct donor pledges)\(^2\)
Long-term portfolio\(^2\)

(1) Assets managed by the World Bank Group.
(2) Assets managed by the Investments team with oversight by the Investment Committee
## Exposure Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Income (40% - 75%)</td>
<td>Capital preservation, income</td>
</tr>
<tr>
<td>Equity (15% - 25%)</td>
<td>Growth, inflation hedge (moderate)</td>
</tr>
<tr>
<td>Tactical (0% - 10%)</td>
<td>Less correlated assets lacking the typical characteristics of fixed income or equity</td>
</tr>
<tr>
<td>Multi-exposure (15%-30%)</td>
<td>Liquid, flexible, and risk diversified strategies</td>
</tr>
</tbody>
</table>
Asset Allocation: What to Consider

In assessing an appropriate mix of investments, the Investments team with the guidance of the Investment Committee and a strategic consultant considers the following:

1. Appetite for volatility/risk
2. Balancing liquidity of investments
3. Frequency and size of drawdowns (to pay liabilities)
4. Diversification (adding investments that will behave differently under various economic scenarios)
Definition:
A financial obligation from an issuer (e.g. a government) to the investor which typically includes:
1. Periodic interest (coupon) payments
2. Repayment of principal at maturity

Example:
$100, 3-year obligation with a fixed, annual coupon of 5%

Issuer receives: $100
Investor receives: $5, $5, $5+$100

Total return: At the end of 3 years, the investor receives $15 in coupon payments and his/her principal of $100
Equity

Definition:
A security that provides the investor with an equity or ownership stake in a company. The investor seeks to earn at least one of the following:

1. Dividends (profit distribution)
2. Capital gain (market value at sale – purchase price)

Stocks are not a short-term investment; in general they are appropriate for investors who have a time horizon greater than 5 years.
Tactical

Definition:
Investments that serve as diversifiers within the Gavi long-term portfolio. They do not share the typical characteristics of fixed income and equity. Examples include:

- Commodities
- Infrastructure
- Real estate investment trusts
Multi-Exposure

**Definition:**
Investing in a combination of various asset classes through the use of liquid, flexible strategies. It serves the goal of diversifying risk and mitigating volatility.

These strategies may include common asset classes such as:

- Equity
- Fixed Income
- Currencies
- Commodities
Socially Responsible Investment (SRI)

- Gavi SRI Policy requires semi-annual negative screening on investments in companies that produce tobacco products, weapons, landmines/cluster munitions and companies that have or are alleged to have material breaches of human rights and child labour standards.

- Gavi only screens individual company holdings, e.g. public equities and corporate bonds. Some corporate investments are not screened because the fund holdings are not transparent or in index funds.

- The value of noncompliant companies in each fund cannot exceed 2%. An internal evaluation will be initiated for a fund if it has breached the 2% limit for two consecutive screenings.
Thank you