Asian Bond Outlook

Frankfurt, February 2017

Bryan Collins, CFA
Portfolio Manager, Fidelity International
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A Snapshot of Asian Bond Markets
Global fixed income markets
Asia, an asset class global investors can no longer ignore

Size of different credit markets (USD tn)

US aggregate, USD 23 tn
- Governments: 69%
- Corporates: 31%

Western Europe aggregate, USD 21 tn
- Governments: 58%
- Corporates: 42%

Asia aggregate, USD 14 tn
- Governments: 64%
- Corporates: 36%

EM ex Asia, USD 6 tn
- Governments: 73%
- Corporates: 27%

Source: Fidelity estimates, Bloomberg, notional amount outstanding, as of January 2017.
Asian fixed income market
A USD 14 trillion space

Breakdown by main markets
Onshore RMB dominates

Local Currency breakdown (ex RMB)

Government vs Corporates split by currency

Source: Fidelity estimates, Bloomberg, notional amount outstanding as of January 2017.
Asian Bond Outlook

Chinese onshore bond market
With USD9tn, already in the world’s top 3 but more work to do

World’s largest bond markets
Debt securities outstanding

Onshore Rating*
>2/3 of bonds are not rated

*China onshore ratings are not consistent with international ratings, which might generally be 6-10 notches lower than onshore ratings.
Asian USD bond markets

Significant growth and comparatively attractive metrics

#### Asia bond market growth

![Chart of Asia bond market growth from 2000 to 2017 showing market value and number of issues (RHS).](chart)

#### Market characteristics and comparisons

<table>
<thead>
<tr>
<th>Index</th>
<th>Yield (%)</th>
<th>Spread (bps)</th>
<th>Duration</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian IG</td>
<td>ADIG</td>
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<td>US IG</td>
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<td>European IG</td>
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<td>Asian HY</td>
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<td>Asian Equities</td>
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Source: Fidelity International, Asia Bond market value and issues represented by BofA Merrill Lynch ADOL index; other markets represented by BofA Merrill Lynch Indices as noted, equity market yields represented by Bloomberg estimated annual dividends divided by current price, all data as of February 8, 2017.
Who buys Asian bonds?

Breakdown of new issues

**Breakdown by region:** Asia now account for ~80% of new issues

**Breakdown by investor type:** The role of banks is growing

Source: Fidelity International, JPMorgan, as of December 2016.
Key Macro Themes
US Fed action

Trajectory may vary but trend is clear

Fed Funds Rate – implied path and revised forecasts

US trade protectionism – a threat or boon for Asia?

Asia – not as sensitive as in the past

Asia exports to the World (% GDP)

- Asia’s dependence on the US for growth is usually overrated
- International trade agreements such as TPP can be replaced with regional networks (ex: One Belt, One Road)
- Capital market evolution and structural improvements over the last couple decades have left Asian economies in stronger positions, less exposed to exogenous shocks

Source: World Bank, US Census Bureau, as of December 2015. For reference, China’s 2015 nominal GDP was ~11.2 USD trillion.
Commodity price rebound and inflation
Asia – not as sensitive as in the past

Commodity prices – A solid recovery

- Inflation, not a major concern in Asia
  - Most Asian central banks can remain accommodative

- Energy subsidies, mostly removed
  - Higher energy prices will not constrain fiscal policies as in the past

- Trade volumes, relatively stable
  - Rising prices will lead to higher export value

Current inflation vs target inflation:
Asia has a natural cushion

Source: Fidelity International, Bloomberg, as of December 2016.
Asia benefits from China’s onshore bond market

Costs of funding significantly reduced as an alternative market emerges

Global HY corporate spreads and duration

Source: Fidelity International, BofA Merrill Lynch Indices: HUC0 for USHY; HQ0C for EHY; Q490 for Fidelity’s customised AHY approach - Blended Index: ACCY, 20% sector Level 4 Cap, 3% issuer cap; IP00 for EM Bonds; ER00 for European IG; C0A0 for US IG; ADIG for Asian IG, ACYC for China HY, as of December 2016.
**Asian Bond Outlook**

**Cost of funding improving**

Average borrowing costs steadily and meaningfully declining

**Asian market weighted avg. coupons**

As an illustration, Star Energy issued its old bond at 11.5% yield in 2010 and subsequently a new bond at 6.125% in 2013. Reference in this document to specific securities should not be construed as a recommendation to buy or sell these securities; it is included for the purposes of illustration only.

**Examples of lowering coupons**

High yield markets outperform

Return and volatility profiles favor HY bonds over equities

Asian equity vs. HY – annualised returns and volatilities

Asian premiums look attractive
Duration has shortened, spreads have tightened

Effective duration and yield

Source: Fidelity International, BofA Merrill Lynch Indices: HUC0 for USHY; HQ0C for EHY; Q490 for Fidelity’s customised AHY approach - Blended Index: ACCY, 20% sector Level 4 Cap, 3% issuer cap; IP00 for EM Bonds; ER00 for European IG; C0A0 for US IG; ADIG for Asian IG, as of December 2016.
Fundamentals, Valuations and Technicals
Asian countries benefit from a supportive macroeconomic backdrop

Sovereign rating changes over the past 10 years*

**China**: 4 times
- Dec 2010: from A+ upgraded to AA-
- Jul 2008: from A upgraded to A+
- Jul 2006: from A- upgraded to A
- Jul 2005: from BBB+ upgraded to A-

**India**: 2 times
- Jan 2007: from BB+ upgraded to BBB-
- Feb 2005: from BB upgraded to BB+

**South Korea**: 3 times
- Aug 2016: from AA- upgraded to AA
- Sept 2015: from A+ upgraded to AA-
- Sept 2012: from A upgraded to A+

**Hong Kong**: 4 times
- Dec 2010: from AA+ upgraded to AAA
- Jul 2008: from AA upgraded to AA+
- Jul 2006: from AA- upgraded to AA
- Jul 2005: from A+ upgraded to AA-

**Philippines**: 4 times
- May 2014: from BBB- upgraded to BBB
- May 2013: from BB+ upgraded to BBB-
- Apr 2012: from BB upgraded to BB+
- Nov 2010: from BB- upgraded to BB

**Indonesia**: 3 times
- Apr 2011: from BB upgraded to BB+
- Mar 2010: from BB- upgraded to BB
- Jul 2006: from B+ upgraded to BB-

*S&P Foreign Currency LT Debt rating.
Source: Fidelity International, Bloomberg, Standard & Poor's, as of December 2016.
Fundamentals
Domestic demand a primary business driver

- Fidelity Asia analysts assessed their respective coverage to determine the primary business drivers for each firm.
- A vast majority of companies revealed predominately exposure to local demand – approximately $\frac{2}{3}$ to domestic demand and $\frac{3}{4}$ to either domestic or regional demand.

Valuations

Recent spread tightening leads underlying fundamental improvements

Global default rates and spreads

Source: Moody’s, BofA Merrill Lynch, as of December 2016.
**Technicals**

Demand and supply dynamics both supportive

**Breakdown by region:** Asian investors now account for ~80% of new issues

**High issuance tempered by redemptions:** healthy demand now chasing falling supply

The yield dilemma is as present as ever

Central banks are forcing investors up the risk spectrum

Yields across asset classes

- Cash
- Government Bonds
- Inflation Linked
- Investment Grade Credit
- Hybrids
- High Yield
- Loans
- Emerging Market Debt
- Equities

Shaded areas = current yields  Pre-crisis: 29/06/2007

Source: Bloomberg, BofA Merrill Lynch Bond Indices (redemption yields), Equity Indices (dividend yields), as of January 2017.
# Asian bonds

## Major takeaways

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<th>Major takeaways</th>
<th>Details</th>
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<td><strong>Macro factors</strong></td>
<td>• Asian economies should be relatively resilient against macro forces be they US rate hikes, disruptions to trade or rising commodity prices</td>
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<td><strong>China’s impact</strong></td>
<td>• The ongoing maturation of China’s bond markets is having a profound effect on regional and global bond markets at large; we expect that trend to continue, ultimately resulting in more efficient capital markets</td>
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<td><strong>Fundamentals</strong></td>
<td>• Relatively strong balance sheets and stable outlook</td>
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<td><strong>Valuations</strong></td>
<td>• Spreads reflect underlying fundamental improvements</td>
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<td><strong>Technicals</strong></td>
<td>• Growing local demand provides strong technical support</td>
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<td><strong>Relative value</strong></td>
<td>• The global search for yield is still in force; Asian bond markets offer investors compelling risk:return tradeoffs</td>
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Asian Fixed Income

Asian USD bonds

IG/HY split

IG:
- USD 540bn
- 3.4% yield

HY:
- USD 145bn
- 6.1% yield

Country Split

- China: 43%
- India: 11%
- Hong Kong: 9%
- Indonesia: 11%
- South Korea: 13%
- Malaysia: 7%
- Singapore: 6%
- Philippines: 5%
- Macau: 3%
- Taiwan: 2%

Sector Split

- Quasi-Sov: 27%
- Financial: 25%
- Real Estate: 14%
- Oil & Gas: 9%
- Other: 7%
- Sovereign: 6%
- Diversified: 5%
- TMT: 4%
- Utilities: 3%
- Industrial: 3%
- Consumer: 3%
- Metals & Mining: 3%
- Transport: 2%
- Pulp & Paper: 2%
- Infrastructure: 2%

Source: Fidelity International, JPMorgan (JACI), as of November 2016.
Asian Investment Grade
JACI IG Index

- Market value of index USD 540bn
- Approximate yield 3.4%
- Approximate duration 5.3 years
- Government & quasi 32%
- Financials & corporates 68%

Government related and financials represent majority of universe

Greater China represent over 50%

Majority of credits rated in the BBB bucket

Source: Fidelity International, JPMorgan (JACI), as of November 2016.
Global investment grade markets

Defining features

Yield and duration

- **Asia IG**
- **European IG**
- **US IG**

Ratings

- **AAA**
- **AA**
- **A**
- **BBB**

Sectors

Source: Fidelity International, BofA Merrill Lynch Indices: ADIG for Asia IG, ER00 for European IG, C0A0 for US IG, as of November 2016.
Asian High Yield
JACI HY Index

- Market value of index ~USD 140bn
- Approximate yield 6.1%
- Duration 3.4 years
- Real Estate 35%
- Sovereigns, quasi’s and financials 27%

Diversity in industries outside of Real Estate

Good mix of different credit quality

Country diversification outside of China

Source: Fidelity International, JPMorgan (JACI), as of November 2016.
Global high yield markets

Defining features

Yield and duration

China onshore RMB bonds
> RMB 60 trillion (USD 9 trillion) market

**Sector**
- Financials: 25%
- Municipal: 17%
- Sovereign Bonds: 19%
- Commercial Paper: 4%
- Ministry Railway Bonds: 2%
- Medium Term Note: 7%
- Other: 21%

**Onshore Rating**
- Non-rated: CGB, Muni, PBoC, Policy banks: 54%
- Non-rated: Others: 20%
- AA and above (IG): 20%
- AA and below (HY): 6%

*China onshore ratings are not consistent with international ratings, which might generally be 6-10 notches lower than onshore ratings.
Source: Fidelity International, China Bond, WIND, as of November 2016.
China offshore RMB bonds

CNHJ Index

- Market value of index RMB 330bn (actual market 2x this)
- Approximate yield 4.77%
- Duration 1.96 years
- Broad range of sectors and international issuers
- Easy access for international investors

Good diversity in industries

- Many foreign issuers present

- Approximate yield 4.77%
- Duration 1.96 years
- Broad range of sectors and international issuers
- Easy access for international investors

Appendix – China
Reduced rate volatility post new reform
A stable SHIBOR enables efficient monetary policy transmission

**Historical short term SHIBOR**

Diversified funding channels via onshore market
Greater credit differentiation reflects more efficient pricing

Yields of onshore AA and offshore BB

Good performance from corporates; still some room to improve for A rated (onshore) bonds

Source: BofA Merrill Lynch, ChinaBond, Fidelity International, as of December 2016. HSBBSP5 for offshore BB spread; offshore BB yield is derived from adding 5 year US Treasury yield to offshore BB spread. CUCBR5 for onshore AA. *Fidelity international estimates.
CFETS CNY Index: a trade-weighted RMB index
Shifting to a basket-weighted approach

- The China Foreign Exchange Trading System (CFETS) launched the CNY NEER Index in December 2015.
- The PBoC is clearly emphasising its focus on a basket approach to managing its currency, away from a USD fixing.
- On a trade weighted basis, the RMB has not depreciated as significantly as the USDCNY fixing would suggest.

*Currency weights of the FIL traded weighted index are derived from CEIC trade data, which may deviate from CFETS’ currency weights.
Appendix – Credit Sector Views
Credit metrics softer overall but remain supportive

Overall Asian credit metrics

Overall Asian high yield credit metrics

Source: Bloomberg, J.P. Morgan estimates, Fidelity International estimates, as of August 2016.
Asian IG financial profiles have been preserved

Net leverage has come down

Debt servicing ratio remains stable

Chinese banks asset quality under pressure
Potential liquidity issue but large banks well capitalised

Credit cost rises with NPL coverage declines

SOE banks resilient in medium term (FIL est.)

Source: Fidelity International, as of September 2016.

China

Reforms and policy easing to sustain economic growth

△ Sustained growth amid reforms:
  Growth largely in line with government target; continued reforms to improve stability, efficiency and productivity

△ Leading indicators pointing to rebound:
  December services PMI at 17-month high and manufacturing PMI creeping higher

△ NPI growth has moderated:
  Several initiatives, such as “Debt to Equity” rolled out to address NPL situation

PMIs find stability, then improvement in 2016

▼ Capital outflow and RMB depreciation:
  Both outflows and depreciation against CFETS likely to persist

▼ Tightening property policy:
  Policy aimed at ensuring a sustainable property market may be near-term drag on economic growth

▼ Limited room for monetary easing:
  Rising inflation, RMB depreciation, and incomplete deleveraging limit PBoC headroom

Reserves drop as currency weakens

India

Government delivering on reforms while macro accounts stay solid

▲ Strong political mandate:
Market friendly government will to prioritize reforms and bring investment-led growth back to India

▲ External sector:
Current account to continue improving with increasing levels of FDI

▲ Limited inflationary pressure:
RBI able to maintain accommodative monetary policy and provide cash to SME and agriculture

▼ Short term disruption from demonetization:
Reduced household liquidity to impact short term growth, but long term benefits from increased tax revenue

▼ Weak banking system balance sheets:
Poor capitalisation and problematic loans but debt restructuring and bank recapitalisation plans supportive

▼ Uncertainty around immigration policy in U.S.:
Changes in visa policy could impact the skilled Indian workers in U.S., weighing on capital remittances

Improving current account and FX reserve

Tier 1 ratio improved amid recapitalisation

Source: Bloomberg, Fidelity International, LHS chart as of November 2016, RHS chart as of September 2016.
Indonesia

Reforms progressing as ruling party gains control

▲ Government spending to pick up in 2017: Jokowi’s recent high approval ratings provide foundation to ramp up reform agenda

▲ Subsidy reforms are on track: Reduction in fuel and electricity subsidies progressing smoothly, improving the fiscal strength of the country

▲ Tax amnesty law: Broader tax base following amnesty support fiscal policy

Lower tax/GDP limits fiscal spending

▲ Structurally low tax/GDP: Compared to its ASEAN peers, Indonesia’s structurally lower tax/GDP ratio limits fiscal easing options

▲ Potential capital outflows amid a stronger Dollar: A stronger Dollar could induce IDR volatility and capital outflows

▲ Limited headroom for monetary policy: Inflation pick-up (e.g., higher electricity tariff) and higher US rates limit ability to ease

Growth stabilizes as the economy develops

Source: Bloomberg, International Monetary Fund, Fidelity International, LHS chart as of December 2015, RHS chart as of September 2016.
Malaysia

Reasonable growth on the back of continued fiscal reforms

▲ Domestic demand driving local growth:
Private and government consumption driving growth as both household and public sector spending recover

▲ Decent growth with high credit rating:
Malaysia stands out at the higher end of growth amongst similarly rated EM peers

▲ Some room for monetary easing:
Inflation not an issue and policy rate cut would support household debt servicing without increasing leverage

Decent GDP growth among peers
(Real GDP % change 2017F)

▼ Political uncertainty:
PM Najib’s popularity is mixed, but his political control is still strong as the opposition remains fragmented

▼ Reliance on trade:
Uncertainty around trade policies to weigh on capital account; short term external debt coverage is low

▼ Weak labor market:
Unemployment rising throughout 2016 and household leverage elevated, pressuring consumption

FX reserve / short-term external debt (2017F)

Source: Bloomberg, Moody’s Statistical Handbook, as of November 2016.
Appendix
Strong fundamentals reflected in default rates
Asian high yield bonds have the lowest default rates vs US, EM and Latam


Recent increase in Asia HY is due to 2 issuers: 1) Rolta India, and 2) Harvest Operations Corp. Harvest Operations Corp is a wholly-owned subsidiary of Korea National Oil, operating in Canada. In the exchange offer, non-guaranteed bonds due in 2017 were exchanged for newly issued guaranteed bonds due in 2021, at 90% of par. Approx. 43.5% of investors accepted the exchange. Guarantees on the new notes are provided by Korea National Oil - guaranteed bonds are rated Aa2/AA-/NR.

Source: BofA-ML High Yield Default Rates, as of November 2016.
Asian USD bonds
A steadier ship in rough waters

Returns of Asian IG Bonds, US IG, and Asian equities

<table>
<thead>
<tr>
<th>Time Period*</th>
<th>Asian IG</th>
<th>US IG</th>
<th>Asian ex Japan Equities</th>
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</thead>
<tbody>
<tr>
<td>Euro Crisis</td>
<td>April 21, 2011 - Oct 6, 2011</td>
<td>0.3%</td>
<td>2.8%</td>
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<tr>
<td>Taper Tantrum</td>
<td>May 9, 2013 - June 25, 2013</td>
<td>-6.6%</td>
<td>-5.7%</td>
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<tr>
<td>RMB Fixing Change</td>
<td>April 27, 2015 - August 24, 2015</td>
<td>-1.5%</td>
<td>-2.2%</td>
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<tr>
<td>Global sell-off</td>
<td>December 25, 2015 - February 12, 2016</td>
<td>1.5%</td>
<td>0.2%</td>
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<tr>
<td>UK EU Referendum (Brexit)</td>
<td>June 23, 2016 - June 29, 2016</td>
<td>1.0%</td>
<td>1.3%</td>
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<tr>
<td>Volatility around U.S. election</td>
<td>October 24, 2016 - November 21, 2016</td>
<td>-3.0%</td>
<td>-3.3%</td>
</tr>
</tbody>
</table>

Asian IG Bonds have outperformed US IG during the last four bouts of Asian equity weakness

Asia has performed well in past hiking cycles

Asian total returns during Fed Funds hikes

<table>
<thead>
<tr>
<th>Policy Rate Change</th>
<th>Asian IG Total Return</th>
<th>Asian HY Total Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-June-1999 to 15-May-2000</td>
<td>+125 bps</td>
<td>+5.8%</td>
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<tr>
<td>1-June-2004 to 30-April-2006</td>
<td>+375 bps</td>
<td>+9.8%</td>
</tr>
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</table>

Source: Fidelity International, Bloomberg, as of February 2017. Asian IG is represented by BofA/Merrill Lynch Asia Dollar Investment Grade Index (ADIG) and Asia HY is represented by Q490 (Fidelity’s customised AHY approach) - Blended Index: ACCY, 20% sector Level 4 Cap, 3% issuer cap.
Fixed Income Organisation Structure

John Ford
Global CIO of Fixed Income, Multi Asset Implementation & Real Estate

Charles McKenzie
Chief Investment Officer, Fixed Income

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<th>Trading</th>
<th>Credit Research</th>
<th>Olivier Szwarcberg</th>
<th>Quantitative Research</th>
<th>Investment Directing</th>
<th>Analytics Team</th>
<th>Investment Operations</th>
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Location: London Hong Kong Tokyo India China Singapore Covers London & Covers Asia

The Asian fixed income team

John Ford
Global CIO of Fixed Income, Multi-Asset & Real Estate

Charles McKenzie
Chief Investment Officer – Fixed Income

Olivier Szwarcberg
Head of Asian Fixed Income

Portfolio Management
- Bryan Collins: Portfolio Manager
- Eric Wong: Portfolio Manager

Investment Directing
- Luc Froehlich: Head of Investment Directing
- Jenny Lee: Investment Director
- Kyle DeDionisio: Investment Director
- Kevin Loo: Associate Investment Director
- Stanley Shek: Investment Specialist
- Adrian Chan: Investment Graduate
- Isao Yashiro: Investment Director
- Ishido Yuichiro: Associate Investment Director
- Mansi Chauhan: Investment Fund Analyst
- Nitika Sharma: Investment Fund Analyst

Trading
- Freddy Wong: Trader
- Tae-Ho Ryu: Trader
- Juli Loh: Trader
- Young Choi: Investment Graduate

Credit Research
- Lili Fan: Senior Credit Analyst
- Nitesh Kathuria: Credit Analyst
- Akash Tillu: Investment Graduate
- Natalie Hak: Investment Graduate
- Ankit Gupta: Research Specialist
- Smriti Smriti: Associate Research Specialist
- Chris Ding: Credit Analyst
- Claire Xiao: Research Associate
- Alex Zhang: Associate Research Specialist
- Frank Huang: Associate Research Specialist

Investment Operations
- Maria Abbonizio: Head of Investment Operations
- Keith Lau: PMS & Initiatives (Assoc. Dir)
- Vincent Cheng: PMS Analyst
- Elaine Lo: Investment Co-ordinator
- Emily Lau: Investment Co-ordinator

Source: Fidelity International as of December 2016.
Low correlation offers greater diversification
Portfolios stand to benefit from combining varied asset classes

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