Esperion Therapeutics (ESPR)

SMALL & MID CAP RESEARCH

Rating	**OUTPERFORM***
Price (03 Sep 13, US$)	16.12
Target price (US$)	(from 23.00) 26.00[1]
52-week price range	18.44 - 14.00
Market cap. (US$ m)	247.56
Enterprise value (US$ m)	169.25

**Stock ratings are relative to the coverage universe in each analyst's or each team's respective sector.*
[1]Target price is for 12 months.

Research Analysts
Jason Kantor, PhD
415 249 7942
jason.kantor@credit-suisse.com
Jeremiah Shepard, PhD
415 249 7933
jeremiah.shepard@credit-suisse.com
Ravi Mehrotra PhD
212 325 3487
ravi.mehrotra@credit-suisse.com
Lee Kalowski
212 325 9683
lee.kalowski@credit-suisse.com
Koon Ching PhD
212 325 6286
koon.ching@credit-suisse.com
James C. Chen, CFA
212 538 5173
james.c.chen@credit-suisse.com

Positive Results in Statin Add-on Study

The results of Study 007 are a significant positive for ESPR: (1) demonstrated efficacy on top of statins, (2) no new safety signals – drugs well tolerated in combination, (3) efficacy compares well to Zetia, and (4) drug profile favorable for future partnering/acquisitions. We are raising our TP to $26 from $23.

- **ETC-1002 lowers LDL-C by 22% on top of Lipitor:** In Study 007, ETC-1002 plus low dose Lipitor (10mg) lowered LDL-C by 22% vs. 0% for placebo (p<0.0001). Previously ESPR had guided that 20% would be clinically and commercially meaningful. This compares well to Zetia which showed a 16% LDL-C reduction on top of 10mg atorvastatin (Exhibit 1).
- **Safety was clean:** ESPR reported no increase in muscle toxicity (a statin toxicity), and no decrease in hemoglobin relative to placebo (a signal seen in other ETC-1002 trials). ESPR did report a modest increase in uric acid (seen in prior trials), and reported one discontinuation due to elevated liver enzymes, but this is likely an anomaly as this was at the lowest dose and has not been seen in other trials. There was a reported increase in atorvastatin blood levels (1.7x) at the highest dose of ETC-1002.
- **Larger market opportunity:** The primary target market for ETC-1002 is statin intolerant patients (~2M). The statin add-on market is much larger (~11M). Demonstrated efficacy and safety with statins are key for this drug to gain wider adoption and are important for attracting a partner or acquirer.
- **Valuation:** Our $26 target is based on a probability adjusted DCF, assuming a 55% probability of success in statin intolerant and 33% probability in statin add-on patients (up from 25%).

Financial and valuation metrics

Year	12/12A	12/13E	12/14E	12/15E
EPS (CS adj.) (US$)	-36.31	-3.12	-1.71	2.06
Prev. EPS (US$)	—	—	—	—
P/E (x)	-0.4	-5.2	-9.4	7.8
P/E rel. (%)	-2.7	-33.7	-67.7	62.0
Revenue (US$ m)	—	—	—	78.0
EBITDA (US$ m)	-10.1	-21.6	-30.2	42.1
OCFPS (US$)	-33.42	-2.12	-1.55	2.20
P/OCF (x)	—	-7.6	-10.4	7.3
EV/EBITDA (current)	-22.9	-10.7	-7.6	5.5
Net debt (US$ m)	16	-78	-127	-173
ROIC (%)	901.89	410.73	573.84	-799.96

Number of shares (m)	15.36	IC (current, US$ m)	-1.13
BV/share (Next Qtr., US$)	5.2	EV/IC (x)	-30.9
Net debt (Next Qtr., US$ m)	-84.9	Dividend (current, US$)	—
Net debt/tot cap (Next Qtr., %)	-106.6	Dividend yield (%)	—

Source: Company data, Credit Suisse estimates

Study 007 Overview

Study 007 tested ETC-1002 in patients who did not achieve their LDL-C goal while on stable statin therapy. The trial had a similar forced dose titration as Study 006 (in statin intolerant patients). In this trial, patients were treated with escalating doses of ETC-1002 on top of a 10mg dose of atorvastatin calcium (Lipitor), the most commonly prescribed dose.

All patients received low dose statin (10mg atorvastatin) for 4 weeks prior to starting either ETC-1002 or placebo. Patients in the ETC-1002 group started at 60mg for 2 weeks, and then escalated to 120mg, 180mg, and 240mg each for two weeks.

Our expectation ahead of the results was as follows:

> "We believe that the minimum meaningful effect would be an approximate 20% reduction in LDL-C on top of statins. Clearly, the bigger the drop, the better, when considering efficacy. A smaller effect would call into question the market opportunity in this indication."

ESPR provided only top-line data with some additional details provided on the call.

- 22% reduction in LDL-C vs. 0% for placebo (p<0.0001)
- A 15% reduction was achieved at the 120mg dose
- There was a trend in lower CRP, an important measure of inflammation
- There was no decrease in hemoglobin relative to placebo (as has been seen in other studies)
- There was an increase in blood levels of statin in patients treated with both drugs. The increase was 1.7x.

Exhibit 1: Study 007 Design

	Study 007
Stage	Ph 2a
# of pts	58 (3:1)
Patients	Hypcholesterolemia (residual risk)
Design	Forced titration
Duration	8 weeks
Doses	60, 120, 180, 240 mg
Results	22% reduction in LDL-C (p<0.0001)

Source: Company data, Credit Suisse estimates

Favorable Relative to Zetia

In statin intolerant patients, ETC-1002 has demonstrated a 30-40% LDL-C reduction compared to 15-20% for Zetia. In Study 007, ETC-1002 demonstrated a 22% reduction in LDL-C, which again was better than the 16% seen for Zetia in a similar population when combined with 10mg of atorvastatin.

Exhibit 2: Efficacy Compares Well to Zetia

TABLE 8: Response to ZETIA and Atorvastatin Initiated Concurrently in Patients with Primary Hyperlipidemia (Mean* % Change from Untreated Baseline†)

Treatment (Daily Dose)	N	Total-C	LDL-C	Apo B	Non-HDL-C	TG*	HDL-C
Placebo	60	+4	+4	+3	+4	-6	+4
ZETIA	65	-14	-20	-15	-18	-5	+4
Atorvastatin 10 mg	60	-26	-37	-28	-34	-21	+6
ZETIA + Atorvastatin 10 mg	65	-38	-53	-43	-49	-31	+9
Atorvastatin 20 mg	60	-30	-42	-34	-39	-23	+4
ZETIA + Atorvastatin 20 mg	62	-39	-54	-44	-50	-30	+9
Atorvastatin 40 mg	66	-32	-45	-37	-41	-24	+4
ZETIA + Atorvastatin 40 mg	65	-42	-56	-45	-52	-34	+5
Atorvastatin 80 mg	62	-40	-54	-46	-51	-31	+3
ZETIA + Atorvastatin 80 mg	63	-46	-61	-50	-58	-40	+7
Pooled data (All Atorvastatin Doses)‡	248	-32	-44	-36	-41	-24	+4
Pooled data (All ZETIA + Atorvastatin Doses)‡	255	-41	-56	-45	-52	-33	+7

* For triglycerides, median % change from baseline.
† Baseline - on no lipid-lowering drug.
‡ ZETIA + all doses of atorvastatin pooled (10-80 mg) significantly reduced total-C, LDL-C, Apo B, non-HDL-C, and TG, and increased HDL-C compared to all doses of atorvastatin pooled (10-80 mg).

Zetia provides 16% reduction in LDL-C over 10mg of atorvastatin

Source: Company data, Credit Suisse estimates

Phase IIb Plans: Larger, More Definitive Trials to Read out in H2:14

ESPR has significant Phase II data on which to design a large randomized trial, and the planned Phase IIb studies in statin intolerant patients and residual risk patients (statin add-on) are intended to provide the support needed to go to Phase III in 2015.

ESPR plans to initiate the Phase IIb trial in statin intolerant patients in Q4:13/Q1:14, with top-line results in H2:14. The two studies will be randomized, parallel group Phase IIb trials, testing at least two doses of ETC-1002 versus placebo.

- **Study 008** will treat 322-statin intolerant patients (failed two or more statins) at two or three doses of ETC-1002 for 12 weeks versus Zetia as a control. The exact size and design of the trial have not been disclosed, but the company expects to start the study in Q4:13.

- **Study 009** will evaluate residual risk patients treated with both a statin and ETC-1002 (likely two different doses). The exact size and design of the trial have not been disclosed, but the company expects to start the study in Q1:14.

The details of both trials have not been fully described. Our expectation is that ESPR will test the 120mg dose and potentially one higher dose in both trials.

Exhibit 3: ESPR Pipeline

Drug	Indication	Stage	Partner
ETC-1002	Hypercholesterolemia (statin intolerant)	Phase IIa (completed)	Proprietary
	Hypercholesterolemia (Type II diabetics)	Phase IIa (completed)	
	Hypercholesterolemia (statin add-on)	Phase IIa	
ESP41091	Type II diabetes and obesity	Preclinical	Proprietary
4WF	Low HDL	Preclinical	Proprietary

Source: Company data, Credit Suisse estimates

Exhibit 4: ESPR News Flow

Timing	Expected News Flow	Program
Residual risk (statin add-on)		
Q1:14	Start Phase IIb (Study-009 & 010)	ETC-1002
Q4:14	Phase IIb trial readout	ETC-1002
Statin intolerant program		
Oct. 2013	Start Phase IIb (Study-008)	ETC-1002
H2:14	Phase IIb data (Study-008)	ETC-1002
Pivotal program		
Mid-2015	Start Phase III study	ETC-1002
H2:16	Completion of Phase III efficacy study	ETC-1002
H1:17	Completion of Phase III safety study	ETC-1002
Regulatory		
Q1:15	End of Phase II meeting	ETC-1002
H2:14	2-year carc. study in animals	ETC-1002
H2:17	NDA filing	ETC-1002
H2:18	Approval and launch	ETC-1002

Source: Company data, Credit Suisse estimates

Exhibit 5: ESPR Earnings Model

	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Revenues											
Milestones and partnering revenue				78.0	4.0	56.5	59.0	4.0	4.0		
Royalty revenue							10.3	24.7	39.5	84.6	119.4
Total Net Revenues				78.0	4.0	56.5	69.3	28.7	43.5	84.6	119.4
Expenses											
R&D	8.0	14.9	20.9	24.6	25.8	27.1	28.5	29.9	31.4	33.0	34.6
G&A	2.2	6.7	9.3	11.3	11.9	12.5	13.1	13.7	14.4	15.1	15.9
Total Operating Expenses	10.2	21.6	30.2	35.9	37.7	39.6	41.6	43.6	45.8	48.1	50.5
Operating income (loss)	(10.2)	(21.6)	(30.2)	42.1	(33.7)	16.9	27.7	(14.9)	(2.3)	36.4	68.9
Total Other Income (Expense)	(1.5)	(2.9)	1.3	1.7	1.5	1.5	1.0	1.0	1.0	1.0	1.0
Pre Tax Income	(11.7)	(24.5)	(28.9)	43.8	(32.2)	18.4	28.7	(13.9)	(1.3)	37.4	69.9
Income tax expense (benefit)											24.5
Net Income	(11.7)	(24.5)	(28.9)	43.8	(32.2)	18.4	28.7	(13.9)	(1.3)	37.4	45.4
EPS - basic (proforma)	($36.31)	($3.12)	($1.71)	$2.09	($1.52)	$0.86	$1.34	($0.64)	($0.06)	$1.72	$2.07
EPS - diluted (proforma)	($36.31)	($3.12)	($1.71)	$2.06	($1.52)	$0.82	$1.27	($0.64)	($0.06)	$1.63	$1.97
Shares outstanding - basic (proforma)	0.32	7.86	16.85	20.98	21.19	21.40	21.51	21.61	21.72	21.83	21.94
Shares outstanding - diluted (proforma)	0.32	7.86	16.85	21.26	21.19	22.55	22.66	21.61	21.72	23.00	23.11

Product sales summary	2018E	2019E	2020E	2021E	2022E
US (prob adjusted)	46.4	101.0	147.1	289.9	409.5
Ex-US (prob adjusted)	12.4	40.4	78.5	193.3	273.0
Total (prob adjusted)	58.8	141.4	225.6	483.2	682.5
Royalty	10.3	24.7	39.5	84.6	119.4
US (unadjuted)	84.4	183.6	267.5	644.0	943.9
Ex-US (unadjusted)	22.5	73.4	142.7	429.3	629.3
Total (unadjusted)	106.9	257.1	410.2	1,073.4	1,573.2
Royalty	18.7	45.0	71.8	187.8	275.3

Source: Company data, Credit Suisse estimates

CREDIT SUISSE

Companies Mentioned *(Price as of 03-Sep-2013)*

Esperion Therapeutics (ESPR.OQ, $16.12, OUTPERFORM[V], TP $26.0)

Disclosure Appendix

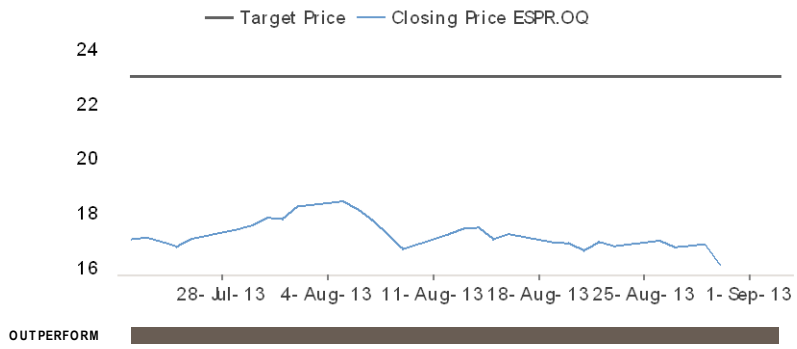
Important Global Disclosures

Jason Kantor, PhD, Ravi Mehrotra PhD and Lee Kalowski each certify, with respect to the companies or securities that the individual analyzes, that (1) the views expressed in this report accurately reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

3-Year Price and Rating History for Esperion Therapeutics (ESPR.OQ)

ESPR.OQ	Closing Price	Target Price	
Date	(US$)	(US$)	Rating
22-Jul-13	17.05	23.00	O *

** Asterisk signifies initiation or assumption of coverage.*



The analyst(s) responsible for preparing this research report received Compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's investment banking activities

As of December 10, 2012 Analysts' stock rating are defined as follows:

Outperform (O) : The stock's total return is expected to outperform the relevant benchmark*over the next 12 months.

Neutral (N) : The stock's total return is expected to be in line with the relevant benchmark* over the next 12 months.

Underperform (U) : The stock's total return is expected to underperform the relevant benchmark* over the next 12 months.

**Relevant benchmark by region: As of 10th December 2012, Japanese ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. As of 2nd October 2012, U.S. and Canadian as well as European ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. For Latin American and non-Japan Asia stocks, ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark; Australia, New Zealand are, and prior to 2nd October 2012 U.S. and Canadian ratings were based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe. For Australian and New Zealand stocks, 12-month rolling yield is incorporated in the absolute total return calculation and a 15% and a 7.5% threshold replace the 10-15% level in the Outperform and Underperform stock rating definitions, respectively. The 15% and 7.5% thresholds replace the +10-15% and -10-15% levels in the Neutral stock rating definition, respectively. Prior to 10th December 2012, Japanese ratings were based on a stock's total return relative to the average total return of the relevant country or regional benchmark.*

Restricted (R) : In certain circumstances, Credit Suisse policy and/or applicable law and regulations preclude certain types of communications, including an investment recommendation, during the course of Credit Suisse's engagement in an investment banking transaction and in certain other circumstances.

Volatility Indicator [V] : A stock is defined as volatile if the stock price has moved up or down by 20% or more in a month in at least 8 of the past 24 months or the analyst expects significant volatility going forward.

Analysts' sector weightings are distinct from analysts' stock ratings and are based on the analyst's expectations for the fundamentals and/or valuation of the sector* relative to the group's historic fundamentals and/or valuation:

Overweight : The analyst's expectation for the sector's fundamentals and/or valuation is favorable over the next 12 months.

Market Weight : The analyst's expectation for the sector's fundamentals and/or valuation is neutral over the next 12 months.

Underweight : The analyst's expectation for the sector's fundamentals and/or valuation is cautious over the next 12 months.

**An analyst's coverage sector consists of all companies covered by the analyst within the relevant sector. An analyst may cover multiple sectors.*

Credit Suisse's distribution of stock ratings (and banking clients) is:

Global Ratings Distribution

Rating	Versus universe (%)	Of which banking clients (%)
Outperform/Buy*	42%	(55% banking clients)
Neutral/Hold*	40%	(49% banking clients)
Underperform/Sell*	15%	(39% banking clients)
Restricted	3%	

**For purposes of the NYSE and NASD ratings distribution disclosure requirements, our stock ratings of Outperform, Neutral, and Underperform most closely correspond to Buy, Hold, and Sell, respectively; however, the meanings are not the same, as our stock ratings are determined on a relative basis. (Please refer to definitions above.) An investor's decision to buy or sell a security should be based on investment objectives, current holdings, and other individual factors.*

Credit Suisse's policy is to update research reports as it deems appropriate, based on developments with the subject company, the sector or the market that may have a material impact on the research views or opinions stated herein.

Credit Suisse's policy is only to publish investment research that is impartial, independent, clear, fair and not misleading. For more detail please refer to Credit Suisse's Policies for Managing Conflicts of Interest in connection with Investment Research: http://www.csfb.com/research and analytics/disclaimer/managing_conflicts_disclaimer.html

Credit Suisse does not provide any tax advice. Any statement herein regarding any US federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purposes of avoiding any penalties.

Price Target: (12 months) for Esperion Therapeutics (ESPR.OQ)

Method: Our $26 price target for ESPR is based on a probability adjusted DCF, assuming a very conservative 55% probability of success in statin intolerant and 33% probability in statin add-on patients. Additional data in 2013 and 2014 could increase our probabilities for both indications.

Risk: Risks to our $26 TP include factors that could decrease our probabilities of success for ETC-1002 in statin intolerant and statin add-on markets: 1) inability to remove the partial clinical hold, 2) lack of efficacy or any new toxicities in ongoing trials, 3) increased concern over known safety signals (decreases in hemoglobin and increases in uric acid), and 4) more stringent regulatory requirements (ie FDA requiring an outcome study for approval).

Please refer to the firm's disclosure website at www.credit-suisse.com/researchdisclosures for the definitions of abbreviations typically used in the target price method and risk sections.

See the Companies Mentioned section for full company names

The subject company (ESPR.OQ) currently is, or was during the 12-month period preceding the date of distribution of this report, a client of Credit Suisse.

Credit Suisse provided investment banking services to the subject company (ESPR.OQ) within the past 12 months.

Credit Suisse has managed or co-managed a public offering of securities for the subject company (ESPR.OQ) within the past 12 months.

Credit Suisse has received investment banking related compensation from the subject company (ESPR.OQ) within the past 12 months

Credit Suisse expects to receive or intends to seek investment banking related compensation from the subject company (ESPR.OQ) within the next 3 months.

As of the date of this report, Credit Suisse makes a market in the following subject companies (ESPR.OQ).

Important Regional Disclosures

Singapore recipients should contact Credit Suisse AG, Singapore Branch for any matters arising from this research report.

The analyst(s) involved in the preparation of this report have not visited the material operations of the subject company (ESPR.OQ) within the past 12 months

Restrictions on certain Canadian securities are indicated by the following abbreviations: NVS--Non-Voting shares; RVS--Restricted Voting Shares; SVS--Subordinate Voting Shares.

Individuals receiving this report from a Canadian investment dealer that is not affiliated with Credit Suisse should be advised that this report may not contain regulatory disclosures the non-affiliated Canadian investment dealer would be required to make if this were its own report.

For Credit Suisse Securities (Canada), Inc.'s policies and procedures regarding the dissemination of equity research, please visit http://www.csfb.com/legal_terms/canada_research_policy.shtml.

As of the date of this report, Credit Suisse acts as a market maker or liquidity provider in the equities securities that are the subject of this report.

Principal is not guaranteed in the case of equities because equity prices are variable.

CREDIT SUISSE

Commission is the commission rate or the amount agreed with a customer when setting up an account or at any time after that.

For Credit Suisse disclosure information on other companies mentioned in this report, please visit the website at www.credit-suisse.com/researchdisclosures or call +1 (877) 291-2683.

CREDIT SUISSE

References in this report to Credit Suisse include all of the subsidiaries and affiliates of Credit Suisse operating under its investment banking division. For more information on our structure, please use the following link: https://www.credit-suisse.com/who_we_are/en/This report may contain material that is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Credit Suisse AG or its affiliates ("CS") to any registration or licensing requirement within such jurisdiction. All material presented in this report, unless specifically indicated otherwise, is under copyright to CS. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior express written permission of CS. All trademarks, service marks and logos used in this report are trademarks or service marks or registered trademarks or service marks of CS or its affiliates. The information, tools and material presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. CS may not have taken any steps to ensure that the securities referred to in this report are suitable for any particular investor. CS will not treat recipients of this report as its customers by virtue of their receiving this report. The investments and services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about such investments or investment services. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. CS does not advise on the tax consequences of investments and you are advised to contact an independent tax adviser. Please note in particular that the bases and levels of taxation may change. Information and opinions presented in this report have been obtained or derived from sources believed by CS to be reliable, but CS makes no representation as to their accuracy or completeness. CS accepts no liability for loss arising from the use of the material presented in this report, except that this exclusion of liability does not apply to the extent that such liability arises under specific statutes or regulations applicable to CS. This report is not to be relied upon in substitution for the exercise of independent judgment. CS may have issued, and may in the future issue, other communications that are inconsistent with, and reach different conclusions from, the information presented in this report. Those communications reflect the different assumptions, views and analytical methods of the analysts who prepared them and CS is under no obligation to ensure that such other communications are brought to the attention of any recipient of this report. CS may, to the extent permitted by law, participate or invest in financing transactions with the issuer(s) of the securities referred to in this report, perform services for or solicit business from such issuers, and/or have a position or holding, or other material interest, or effect transactions, in such securities or options thereon, or other investments related thereto. In addition, it may make markets in the securities mentioned in the material presented in this report. CS may have, within the last three years, served as manager or co-manager of a public offering of securities for, or currently may make a primary market in issues of, any or all of the entities mentioned in this report or may be providing, or have provided within the previous 12 months, significant advice or investment services in relation to the investment concerned or a related investment. Additional information is, subject to duties of confidentiality, available on request. Some investments referred to in this report will be offered solely by a single entity and in the case of some investments solely by CS, or an associate of CS or CS may be the only market maker in such investments. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information, opinions and estimates contained in this report reflect a judgment at its original date of publication by CS and are subject to change without notice. The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments is subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments. Investors in securities such as ADR's, the values of which are influenced by currency volatility, effectively assume this risk. Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assuming the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility, and the credit quality of any issuer or reference issuer. Any investor interested in purchasing a structured product should conduct their own investigation and analysis of the product and consult with their own professional advisers as to the risks involved in making such a purchase. Some investments discussed in this report may have a high level of volatility. High volatility investments may experience sudden and large falls in their value causing losses when that investment is realised. Those losses may equal your original investment. Indeed, in the case of some investments the potential losses may exceed the amount of initial investment and, in such circumstances, you may be required to pay more money to support those losses. Income yields from investments may fluctuate and, in consequence, initial capital paid to make the investment may be used as part of that income yield. Some investments may not be readily realisable and it may be difficult to sell or realise those investments, similarly it may prove difficult for you to obtain reliable information about the value, or risks, to which such an investment is exposed. This report may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the report refers to website material of CS, CS has not reviewed any such site and takes no responsibility for the content contained therein. Such address or hyperlink (including addresses or hyperlinks to CS's own website material) is provided solely for your convenience and information and the content of any such website does not in any way form part of this document. Accessing such website or following such link through this report or CS's website shall be at your own risk. This report is issued and distributed in Europe (except Switzerland) by Credit Suisse Securities (Europe) Limited, One Cabot Square, London E14 4QJ, England, which is authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA. This report is being distributed in Germany by Credit Suisse Securities (Europe) Limited Niederlassung Frankfurt am Main regulated by the Bundesanstalt fuer Finanzdienstleistungsaufsicht ("BaFin"). This report is being distributed in the United States and Canada by Credit Suisse Securities (USA) LLC; in Switzerland by Credit Suisse AG; in Brazil by Banco de Investimentos Credit Suisse (Brasil) S.A or its affiliates; in Mexico by Banco Credit Suisse (México), S.A. (transactions related to the securities mentioned in this report will only be effected in compliance with applicable regulation); in Japan by Credit Suisse Securities (Japan) Limited, Financial Instruments Firm, Director-General of Kanto Local Finance Bureau (*Kinsho*) No. 66, a member of Japan Securities Dealers Association, The Financial Futures Association of Japan, Japan Investment Advisers Association, Type II Financial Instruments Firms Association; elsewhere in Asia/ Pacific by whichever of the following is the appropriately authorised entity in the relevant jurisdiction: Credit Suisse (Hong Kong) Limited, Credit Suisse Equities (Australia) Limited, Credit Suisse Securities (Thailand) Limited, having registered address at 990 Abdulrahim Place, 27 Floor, Unit 2701, Rama IV Road, Silom, Bangrak, Bangkok 10500, Thailand, Tel. +66 2614 6000, Credit Suisse Securities (Malaysia) Sdn Bhd, Credit Suisse AG, Singapore Branch, Credit Suisse Securities (India) Private Limited regulated by the Securities and Exchange Board of India (registration Nos. INB230970637; INF230970637; INB010970631; INF010970631), having registered address at 9th Floor, Ceejay House, Dr.A.B. Road, Worli, Mumbai - 18, India, T- +91-22 6777 3777, Credit Suisse Securities (Europe) Limited, Seoul Branch, Credit Suisse AG, Taipei Securities Branch, PT Credit Suisse Securities Indonesia, Credit Suisse Securities (Philippines) Inc., and elsewhere in the world by the relevant authorised affiliate of the above. Research on Taiwanese securities produced by Credit Suisse AG, Taipei Securities Branch has been prepared by a registered Senior Business Person. Research provided to residents of Malaysia is authorised by the Head of Research for Credit Suisse Securities (Malaysia) Sdn Bhd, to whom they should direct any queries on +603 2723 2020. This report has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (each as defined under the Financial Advisers Regulations) only, and is also distributed by Credit Suisse AG, Singapore branch to overseas investors (as defined under the Financial Advisers Regulations). By virtue of your status as an institutional investor, accredited investor, expert investor or overseas investor, Credit Suisse AG, Singapore branch is exempted from complying with certain compliance requirements under the Financial Advisers Act, Chapter 110 of Singapore (the "FAA"), the Financial Advisers Regulations and the relevant Notices and Guidelines issued thereunder, in respect of any financial advisory service which Credit Suisse AG, Singapore branch may provide to you. This research may not conform to Canadian disclosure requirements. In jurisdictions where CS is not already registered or licensed to trade in securities, transactions will only be effected in accordance with applicable securities legislation, which will vary from jurisdiction to jurisdiction and may require that the trade be made in accordance with applicable exemptions from registration or licensing requirements. Non-U.S. customers wishing to effect a transaction should contact a CS entity in their local jurisdiction unless governing law permits otherwise. U.S. customers wishing to effect a transaction should do so only by contacting a representative at Credit Suisse Securities (USA) LLC in the U.S. Please note that this research was originally prepared and issued by CS for distribution to their market professional and institutional investor customers. Recipients who are not market professional or institutional investor customers of CS should seek the advice of their independent financial advisor prior to taking any investment decision based on this report or for any necessary explanation of its contents. This research may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the PRA and regulated by the FCA and the PRA or in respect of which the protections of the PRA and FCA for private customers and/or the UK compensation scheme may not be available, and further details as to where this may be the case are available upon request in respect of this report. CS may provide various services to US municipal entities or obligated persons ("municipalities"), including suggesting individual transactions or trades and entering into such transactions. Any services CS provides to municipalities are not viewed as "advice" within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. CS is providing any such services and related information solely on an arm's length basis and not as an advisor or fiduciary to the municipality. In connection with the provision of the any such services, there is no agreement, direct or indirect, between any municipality (including the officials, management, employees or agents thereof) and CS for CS to provide advice to the municipality. Municipalities should consult with their financial, accounting and legal advisors regarding any such services provided by CS. In addition, CS is not acting for direct or indirect compensation to solicit the municipality on behalf of an unaffiliated broker, dealer, municipal securities dealer, municipal advisor, or investment adviser for the purpose of obtaining or retaining an engagement by the municipality for or in connection with Municipal Financial Products, the issuance of municipal securities, or of an investment adviser to provide investment advisory services to or on behalf of the municipality. If this report is being distributed by a financial institution other than Credit Suisse AG, or its affiliates, that financial institution is solely responsible for distribution. Clients of that institution should contact that institution to effect a transaction in the securities mentioned in this report or require further information. This report does not constitute investment advice by Credit Suisse to the clients of the distributing financial institution, and neither Credit Suisse AG, its affiliates, and their respective officers, directors and employees accept any liability whatsoever for any direct or consequential loss arising from their use of this report or its content. Principal is not guaranteed. Commission is the commission rate or the amount agreed with a customer when setting up an account or at any time after that.

Investment principal on bonds can be eroded depending on sale price or market price. In addition, there are bonds on which investment principal can be eroded due to changes in redemption amounts. Care is required when investing in such instruments.

When you purchase non-listed Japanese fixed income securities (Japanese government bonds, Japanese municipal bonds, Japanese government guaranteed bonds, Japanese corporate bonds) from CS as a seller, you will be requested to pay the purchase price only.