

MX

USX Options and U.S. Dollar Currency Exposure

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MX Options Instructor



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Agenda

Facts about the U.S. Dollar

Key Factors Affecting FX Rates

Hidden Impact of Currency Exposure on Returns

What Is the USX?

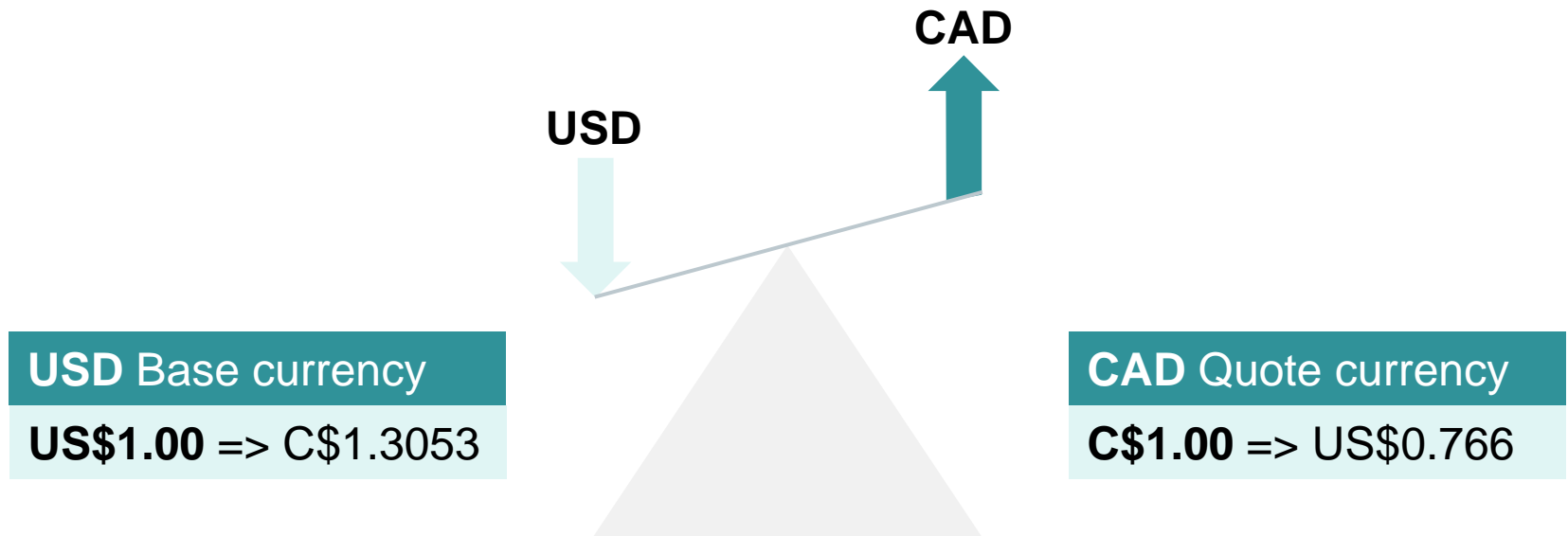
Strategy 1: Trading a Directional View on the US Dollar

Strategy 2: Hedging Currency Risk Using USX Options

Facts about the U.S. Dollar

Reading a currency quote

Pair	Last	Open	High	Low	Chg. (%)
USD/CAD	1.3053	1.3050	1.3060	1.3040	+0.20%



Key Factors Affecting Foreign Exchange Rates

Monetary policy

Central bank policy
on interest rates

Quantitative easing
and intervention

Influence of American
economy and monetary
policy on Canada



Macro drivers

Politics

Economic data

Capital flows and
foreign investment

Inflation

Political stability

Hidden Impact of Currency Exposure on Returns

The hidden impact of currency exposure on returns



January 2, 2014

Two investors:

Looking to purchase a high-dividend paying stock.

Their dilemma:

Should they buy the stock in the U.S. or Canada?

The hidden impact of currency exposure on returns

January 2, 2014



Two investors:

Both are looking at shares of TD Bank

U.S. dollar / Canadian dollar		1.0669
Ticker	Exchange	Price in local currency
TD	TSX (CAD)	C\$49.44
TD	NYSE (USD)	US\$46.29

January 2, 2014



Investor A: Canada

Purchases

100 shares of TD Bank

C\$4,944.00

(\$49.44)



Investor B: U.S.

Purchases

100 shares of TD Bank

US\$4,629.00

(\$46.29)

How well had their investments performed after 2 years?



Changes in TD.TO and TD.US in 2014 and 2015

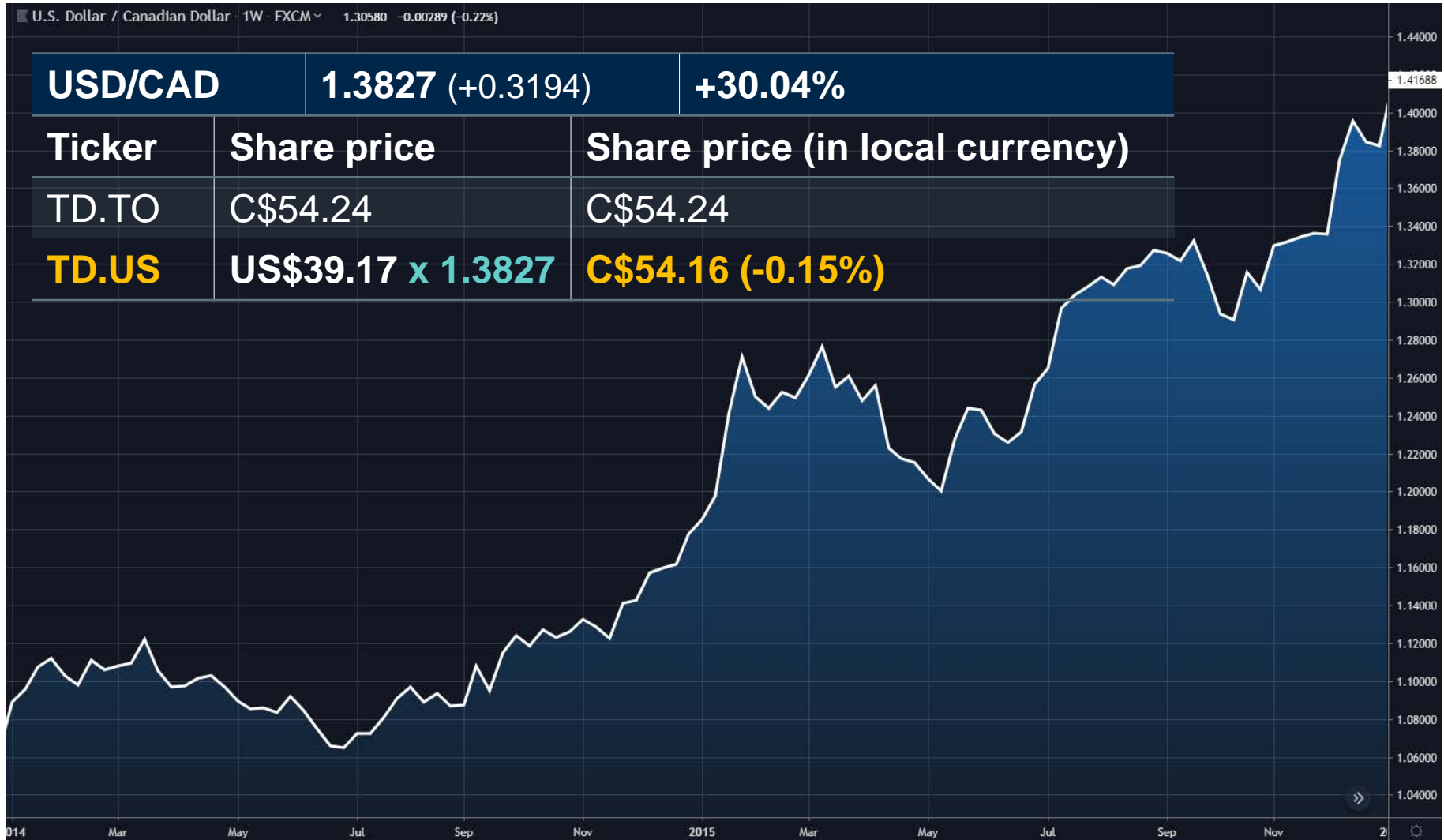
Example



Source: tradingview.com

Changes in USD/CAD in 2014 and 2015

Example



Source: tradingview.com

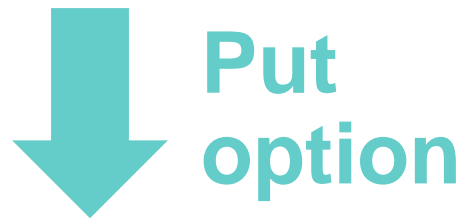
What Is the USX?

USX Options



U.S. dollar going up

Buying USX call options to secure the price against the **upside** potential of the U.S. dollar



U.S. dollar going down

Buying USX put options to secure the price against the **downside** potential of the U.S. dollar

Options



Option strike price

Price at which the option buyer participates in the currency price change and the option writer has the counterparty obligation



Expiration date

Date until which the option contract rights and obligations are valid

Options



American Style

Can be exercised at any time prior to the expiration date.



European Style

May be exercised only at the expiration date of the option.

USX: Contract specifications

Underlying	U.S. dollar
Trading unit	US\$10,000.00
Contract type	European
Trading hours	9:30 am – 4:00 pm ET
Premium quotation	Option premiums are quoted in Canadian cents Example: 1.25 Canadian cents = C\$0.0125 Price per option contract = C\$125.00
Last trading day	Trading ends at 12:30 p.m. ET on the third Friday of the contract month
Final settlement	Cash-settled in Canadian dollars. Based on the difference between the strike price and the exchange rate fixed by Bloomberg FX Fixings (BFIX) at 12:30 p.m. New York time on the expiration date.

USD/CAD from Sept. 2018 – July 2019



Source: tradingview.com



USX options chain

USX – Options on the US Dollar (130.53 USD/CAD)

← Same as C\$1.3053

Last update: July 4, 2019 at 5:15 p.m. (Data 15 minutes delayed)

Call	Bid price	Ask price	Last price	Strike	Put	Bid price	Ask price	Last price
Jul 19, 2019	0.82	0.93	0.93	130.00	Jul 19, 2019	0.33	0.44	0.44
Jul 19, 2019	0.54	0.65	0.65	130.50	Jul 19, 2019	0.55	0.66	0.66
Jul 19, 2019	0.32	0.43	0.43	131.00	Jul 19, 2019	0.84	0.95	0.95
Aug 16, 2019	1.13	1.20	1.20	130.00	Aug 16, 2019	0.70	0.77	0.77
Aug 16, 2019	0.87	0.94	0.94	130.50	Aug 16, 2019	0.94	1.01	1.01
Aug 16, 2019	0.65	0.72	0.72	131.00	Aug 16, 2019	1.22	1.29	1.29

USX Strategy 1: Trading a Directional View on the U.S. Dollar

Outlook:

Investor is bullish on the U.S. dollar



Investor expects the U.S. dollar to **rise**

Targets a move to 134.00 (\$1.34)

Believes the move will happen in the next 30 to 45 days

Seeks an exposure of US\$50,000

USX options chain

USX – Options on the US Dollar (130.53 USD/CAD)

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Aug 16, 2019	0.87	0.94	0.94	130.50	Aug 16, 2019	0.94	1.01	1.01
Aug 16, 2019	0.65	0.72	0.72	131.00	Aug 16, 2019	1.22	1.29	1.29

Outlook: Bullish on the U.S. dollar



Buys 5 USX 130.50 call options @ 0.94 cent CAD

# of calls	X Contract Multiplier	X Option Price	÷ Convert from cents to dollars	= Premium Paid
5	US\$10,000	0.94 cent CAD	100	C\$470

Long 5 USX calls US\$50,000.00 notional exposure

Potential outcomes on expiry



Long 5 USX 130.50 call options @ 0.94 cent CAD

USD/CAD BFIX	Option profit (BFIX – strike)	Net profit / loss	Profit/loss on 5 USX calls
134.00	3.50 (134-130.50)	2.56 (3.50 – 0.94)	C\$1,280.00
132.00	1.50	0.56	C\$280.00
130.50	0.00	-0.94	-C\$470.00
129.00	0.00	-0.94	-C\$470.00

USX options are European style. They can be sold back into the market. If held until expiration, options are settled in CAD dollars based on the BFIX rate at 12:30 pm ET.

Outlook:

Investor is bearish on the U.S. dollar



Investor expects the U.S. dollar to **decline**

Targets a move to 127.00 (\$1.27)

Believes that the move will happen in the next 30 to 45 days

Seeks an exposure of US\$50,000

USX options chain

USX – Options on the US Dollar (130.53 USD/CAD)

Last update: July 4, 2019 at 5:15 p.m. [Data 15 minutes delayed]

Call	Bid price	Ask price	Last price	Strike	Put	Bid price	Ask price	Last price
Jul 19, 2019	0.82	0.93	0.93	130.00	Jul 19, 2019	0.33	0.44	0.44
Jul 19, 2019	0.54	0.65	0.65	130.50	Jul 19, 2019	0.55	0.66	0.66
Jul 19, 2019	0.32	0.43	0.43	131.00	Jul 19, 2019	0.84	0.95	0.95
Aug 16, 2019	1.13	1.20	1.20	130.00	Aug 16, 2019	0.70	0.77	0.77
Aug 16, 2019	0.87	0.94	0.94	130.50	Aug 16, 2019	0.94	1.01	1.01
Aug 16, 2019	0.65	0.72	0.72	131.00	Aug 16, 2019	1.22	1.29	1.29

Outlook: Bearish on the U.S. dollar:



Buys 5 USX 130.50 put options @ 1.01 cents CAD

# of calls	X Contract Multiplier	X Option Price	÷ Convert from cents to dollars	= Premium Paid
5	US\$10,000	1.01 cent CAD	100	C\$505

Long 5 USX puts US\$50,000.00 notional exposure

Potential outcomes on expiry



Long 5 USX 130.50 put options @ 1.01 cents CAD

USD/CAD BFIX	Option profit (Strike - BFIX)	Net profit / loss	Profit/loss on 5 USX calls
132.00	0.00	-1.01	-C\$505.00
130.50	0.00	-1.01	-C\$505.00
129.00	1.50	0.49	C\$245.00
127.00	3.50 (130.50-127)	2.49 (3.50 – 1.01)	C\$1245.00

USX options are European style. They can be sold back into the market. If held until expiration, options are settled in CAD dollars based on the BFIX rate at 12:30 pm ET.

USX Strategy 2:
Hedging Currency
Risk Using USX Options

Hedging currency exposure using USX options



Investor wants to buy American stocks in an RRSP

Converts C\$130,530.00 into US\$100,000.00
(Rate: 1.3053)

Purchases American stocks with the proceeds

Hedging currency exposure using USX options



Investor is concerned that, after the upcoming FOMC* meeting, the Federal Reserve may announce a cut to interest rates that could send the U.S. dollar lower

Seeks to remove the FX risk

Considers purchasing USX put options

*Federal Open Market Committee

USX options chain

USX – Options on the US Dollar (130.53 USD/CAD)

Last update: July 4, 2019 at 5:15 p.m. [Data 15 minutes delayed]

Call	Bid price	Ask price	Last price	Strike	Put	Bid price	Ask price	Last price
Aug 16, 2019	1.78	1.85	1.85	129.00	Aug 16, 2019	0.36	0.43	0.43
Aug 16, 2019	1.43	1.50	1.50	129.50	Aug 16, 2019	0.51	0.58	0.58
Aug 16, 2019	1.13	1.20	1.20	130.00	Aug 16, 2019	0.70	0.77	0.77
Aug 16, 2019	0.87	0.94	0.94	130.50	Aug 16, 2019	0.94	1.01	1.01
Aug 16, 2019	0.65	0.72	0.72	131.00	Aug 16, 2019	1.22	1.29	1.29

Hedging currency exposure using USX options



U.S. dollar exposure

US\$100,000.00



Put options

Put option strike

130.50

Price

1.01 cents Canadian

Buy

10 contracts

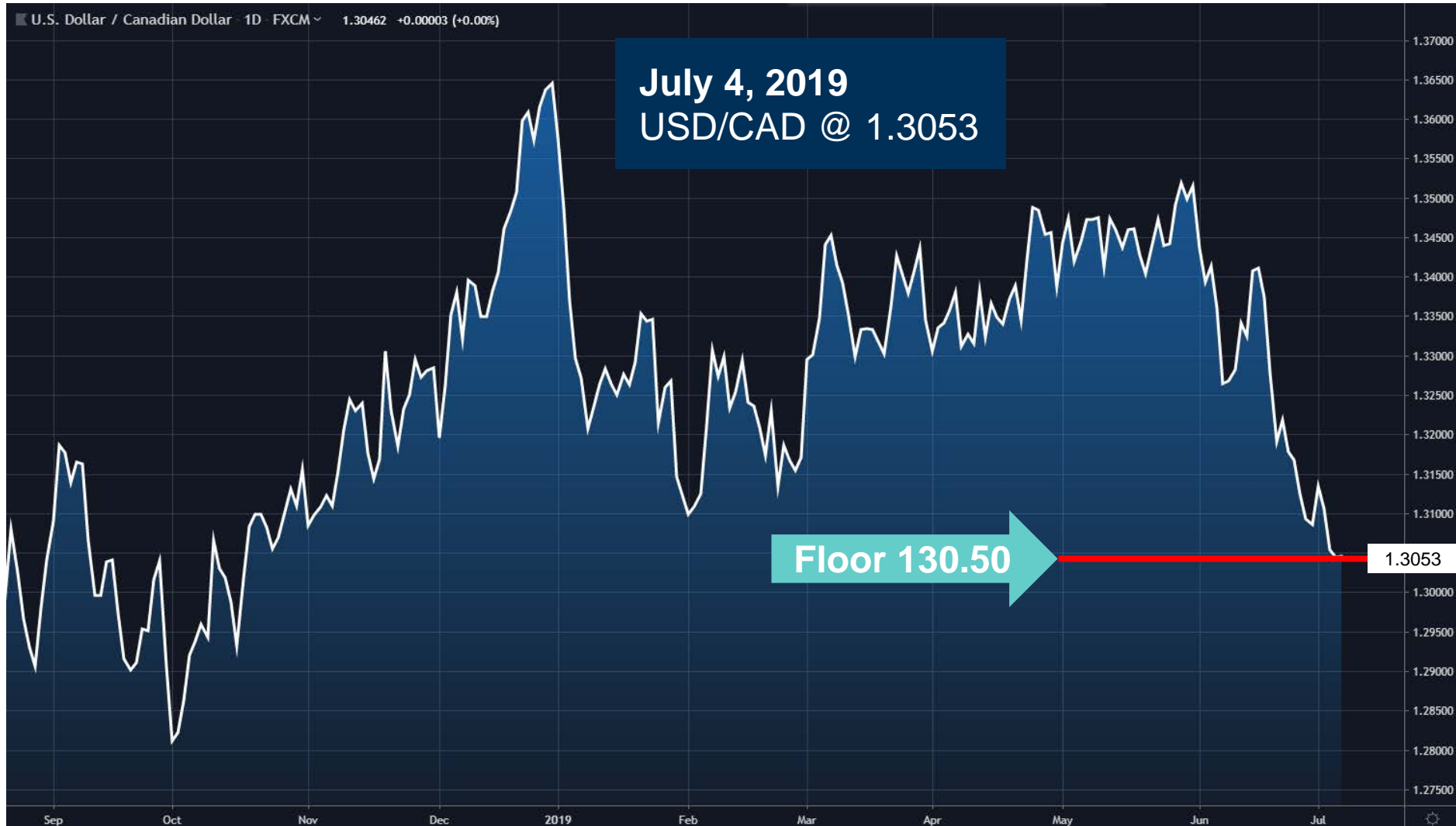
Insurance cost

C\$1,010 (0.77%)

1 USX option = US\$10,000 notional
10 USX options = US\$100,000 notional

Limiting the FX downside risk on owning U.S. stocks

Example



Hedging currency exposure using USX options



FOMC meeting was dovish and led to a rate cut

USD/CAD starts to drop to 1.27

What will happen to the USX hedge?

Hedging currency exposure using USX options



FX rate: USD/CAD at 127.00

USX profit: USX 130.50 put option is worth 3.50
(130.50 - 127 = 3.50)

Net profit: Profit (3.50 - 1.01) = 2.49

of contracts: $2.49 \times 10,000 / 100 \times 10$ contracts

Total profit: C\$2,940.00

USX options are European style. They can be sold back into the market. If held until expiration, options are settled in CAD dollars based on the BFIX rate at 12:30 pm ET.

Outcome of the currency hedge using USX options

Date	USD value	FX rate	CAD value
Start date	US\$100,000	1.3053	C\$130,530
End date	US\$100,000	1.2700	C\$127,000 (-C\$3,530)

Net profit from the USX put options: C\$2,490

Use the C\$2,490 to offset the C\$3,530 loss

Summary

USX	Option on the U.S dollar
Trading unit:	US\$10,000
Contract type:	European style
Reference price for settlement:	BFIX 12:30 pm NY time
Last trading day:	3 rd Friday of the contract month

Cash settled in Canadian dollars

Eligible for registered accounts

To learn more...

The Montréal Exchange provides e-learning tools:

Blog (optionmatters.ca)

Covered call screener

Videos and webinars

Options trading simulator

Trading guides & strategies

OptionsPlay[®]

Options calculator

Options on the US dollar: m-x.ca/USX

For more information, visit www.m-x.ca

www.m-x.ca/OptionsPlay



Montréal Exchange S&P/TSX COMPOSITE INDEX 16,363.09 +51.48 (0.32%) 1M Trend **Bullish** 6M Trend **Bullish** Market Closes In 01:00:37 Market Data Delayed 20 Minutes

Questions? Ask us! Richard Ho

Trade Ideas Watchlists

16 Ideas

Bullish **Bearish**

Small Cap Medium Cap Large Cap Mega Cap

All Sectors All Scans

Company Name	Price	Score	View
AGF.B	\$5.88	7	↗
AGF MANAGEMENT LIMITED CLA...	+\$0.17 (2.98%)		
AEM	\$58.16	9	↗
AGNICO EAGLE MINES LIMITED	-\$0.19 (0.33%)		
AGI	\$6.71	8	↗
ALAMOS GOLD INC.	-\$0.05 (0.74%)		
ATD.B	\$80.07	10	↗
ALIMENTATION COUCHE-TARD IN...	-\$0.05 (0.06%)		
CG	\$7.12	10	↗
CENTERRA GOLD INC.	-\$0.07 (0.97%)		
DRM	\$7.64	5	↗
DREAM UNLIMITED CORP. CLASS ...	-\$0.12 (1.55%)		
EFN	\$8.37	8	↗
ELEMENT FLEET MANAGEMENT C...	-\$0.10 (1.12%)		
EMA	\$50.56	10	↗
EMERA INCORPORATED	-\$0.07 (0.14%)		
ENB	\$49.38	8	↗
ENBRIDGE INC.	+\$0.14 (0.29%)		
MAG	\$13.55	10	↗
MAG SILVER CORP.	-\$0.06 (0.44%)		
NWH.UN	\$11.58	8	↗
NORTHWEST HEALTHCARE PROP...	-\$0.10 (0.86%)		

ATD.B ALIMENTATION COUCHE-TAR... 1M Trend **Bullish** 6M Trend **Bullish**

\$80.07 **-\$0.05 (0.06%)**

52 week range \$52.08 - \$80.13 Volume 459,533 P/E 17.30
Div / Yield 0.13 / 0.62% EPS 4.60 Beta -0.28

Charts News Feed < Hide Trade Panel

Technical Score 10 (Very Strong) Type 1m 3m 6m

Support \$77.33 -3.42% \$80.71 +0.80% Resistance \$73.58 -8.11%

Earnings: N/A Dividends: Quarterly \$0.12

CCI Dip In Bullish Trend: ALIMENTATION COUCHE-TARD INC. CLASS B SUBORDINATE VOTING SHARES is currently in a bullish trend and recently experienced a short-term price pullback providing a good buying opportunity.

Price Action: Alimentation Couche-Tard Inc. Class B Subordinate Voting Shares is near its 52-week high.

I'm Bullish I'm Bearish

Trade Income OptionsPlay.com

Buy 100 Shares	Buy 1 May 17 80 Call	Buy 1 May 17 80/84 Call Vertical
Strategy: Bullish Trade Cost: \$8,008 OptionsPlay Score: 102	Strategy: Bullish Trade Cost: \$181 OptionsPlay Score: 84	Strategy: Bullish Trade Cost: \$142 OptionsPlay Score: 105
Trade Modify	Trade Modify	Trade Modify

P&L Simulator

Buy 100 Shares	Buy 1 May 17 80 Call	Buy 1 May 17 80/84 Call Vertical
\$432.00 Profit +5.39% Return	\$259.00 Profit +143.09% Return	\$258.00 Profit +181.69% Return

This is your profit (or loss) for each strategy if the stock:

Goes to this price: \$84.40 \$72.03 \$88.97

By this date: 5/17/2019 Today Expiry

And volatility is: 15.43% 7.72% 23.15%



Thank you!

TMX

**THE FUTURE
IS YOURS TO SEE.**