VIRCO MFG CORPORATION
Form 11-K
June 29, 2011
Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 11-K

(Mark One)

x **ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES AND EXCHANGE ACT OF 1934 [FEE REQUIRED]**
For the fiscal year ended December 31, 2010

OR

¨ **TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES AND EXCHANGE ACT OF 1934 [NO FEE REQUIRED]**
For the transition period from to

Commission File Number 1-8777

Virco Mfg. Corporation 401(k) Plan

Virco Mfg. Corporation

2027 Harpers Way

Torrance, California 90501

Table of Contents

INTRODUCTION

Virco Mfg. Corporation, a Delaware corporation, has established the 401(k) Plan (the Plan). The Plan includes a cash or deferred arrangement plan intended to qualify under Sections 401(a) and 401(k) of the Internal Revenue Code of 1986, as amended.

REQUIRED INFORMATION

ITEM 1. Not applicable.

ITEM 2. Not applicable.

ITEM 3. Not applicable.

ITEM 4. Financial statements and exhibits

(a) Financial statements and supplemental schedules:
Financial statements and supplemental schedules prepared in accordance with the financial reporting requirements of ERISA filed hereunder are listed in the Index to Financial Statements in lieu of the requirements of Items 1 to 3 above.

(b) Exhibit:
Consents of Independent Registered Public Accounting Firms

2

Table of Contents

INDEX TO FINANCIAL STATEMENTS AND SUPPLEMENTAL SCHEDULES

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities and Exchange Act of 1934, Virco Mfg. Corporation as Plan Administrator has duly caused this Annual Report on Form 11-K for the year ended December 31, 2010, to be signed on its behalf by the undersigned hereunto duly authorized.

Virco Mfg. Corporation 401(k) Plan

Date: June 28, 2011

By: /s/ Robert E. Dose
Robert E. Dose

Vice President Finance

4

Table of Contents

Report of Independent Registered Public Accounting Firm

To Virco Mfg. Corporation

as Plan Administrator of the

Virco Mfg. Corporation 401(k) Plan:

We have audited the accompanying statement of net assets available for benefits of Virco Mfg. Corporation 401(k) Plan as of December 31, 2010, and the related statement of changes in net assets available for benefits for the year ended December 31, 2010. These financial statements are the responsibility of the Plan s management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Plan s internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan at December 31, 2010, and the changes in its net assets available for benefits for the year ended December 31, 2010, in conformity with US generally accepted accounting principles.

Our audit was performed for the purpose of forming an opinion on the financial statements taken as a whole. The accompanying supplemental schedule of assets (held at end of year) as of December 31, 2010 and schedule of delinquent participant contributions for the year ended December 31, 2010, are presented for purposes of additional analysis and are not a required part of the financial statements but are supplementary information required by the Department of Labor s Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. These supplemental schedules are the responsibility of the Plan s management. The supplemental schedules have been subjected to the auditing procedures applied in our audit of the financial statements and, in our opinion, are fairly stated in all material respects in relation to the financial statements taken as a whole.

/s/ Kieckhafer Schiffer & Company LLP

Irvine, California

June 28, 2011

Table of Contents

Report of Independent Registered Public Accounting Firm

Virco Mfg. Corporation

as Plan Administrator of the

Virco Mfg. Corporation 401(k) Plan

We have audited the accompanying statement of net assets available for benefits of Virco Mfg. Corporation 401(k) Plan as of December 31, 2009. This financial statement is the responsibility of the Plan s management. Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Plan s internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statement referred to above presents fairly, in all material respects, the net assets available for benefits of the Plan at December 31, 2009, in conformity with US generally accepted accounting principles.

/s/ Ernst & Young LLP

Los Angeles, California

June 29, 2010

Table of Contents

Virco Mfg. Corporation 401(k) Plan

Statements of Net Assets Available for Benefits

	December 31	
	2010	**2009**
Assets		
Investments, at fair value:		
Money market funds	**$ 1,730,213**	$ 1,508,479
Mutual funds	**13,931,399**	12,265,589
Common stocks	**2,069,238**	2,900,399
	17,730,850	16,674,467
Receivables:		
Notes receivable from participants	**1,104,125**	801,390
Participants contributions receivable	**17,528**	44,326
Accrued income	**1,601**	
	1,123,254	845,716
Cash	**3,992**	
Total assets	**18,858,096**	17,520,183
Liabilities		
Accounts payable	**1,600**	657
Refund of excess contributions	**29,446**	43,165
Total liabilities	**31,046**	43,822
Net assets available for benefits	**$ 18,827,050**	$ 17,476,361

See accompanying notes to the financial statements.

7

Table of Contents

Virco Mfg. Corporation 401(k) Plan

Statement of Changes in Net Assets Available for Benefits

		Year Ended December 31 2010
Additions to (deductions from) net assets attributed to:		
Participant contributions	**$**	**1,475,169**
Net investment income:		
Interest and dividends		**264,541**
Net appreciation in fair value of investments		**554,054**
Total net investment income		**818,595**
Interest on notes receivable from participants		**45,347**
Benefits paid to participants		**(988,422)**
Net increase		**1,350,689**
Net assets available for plan benefits:		
Beginning of year		**17,476,361**
End of year	**$**	**18,827,050**

See accompanying notes to the financial statements.

8

Virco Mfg. Corporation 401(k) Plan

Notes to Financial Statements

December 31, 2010

1. Plan Description

The following description of the Virco Mfg. Corporation 401(k) Plan provides only general information. Participants should refer to the Plan agreement for a more complete description of the Plan s provisions.

General

Virco Mfg. Corporation (the Company) established the Virco Mfg. Corporation Employee Stock Ownership Plan (ESOP) effective as of April 1, 1993, as a leveraged employee stock ownership plan. In January 2002, the Company amended and renamed the ESOP as the Virco Mfg. Corporation 401(k) Plan (the Plan). Under the amended Plan, the leverage feature that allowed the Plan to obtain advances from the bank to purchase Company common stock was discontinued. While the Plan continues to offer the Company common stock as one of the investment options, the amended Plan no longer operates as a leveraged employee stock ownership plan.

The Plan was designed to comply with section 401(a) of the Internal Revenue Code (the IRC) as a profit sharing plan, and is subject to the applicable provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA). The Plan is designed to enable employees to save for retirement and defer payment of income taxes on the amount saved. A Plan committee comprising of at least two persons appointed by the Company s Board of Directors administers the Plan.

The Plan s assets are held and managed by Wilmington Trust Company (Wilmington Trust). As trustee, Wilmington Trust invests cash received, interest and dividend income, and makes distributions to participants.

Eligibility

Employees of the Company excluding leased employees, non-resident aliens or employees covered by a collective bargaining agreement not expressly providing inclusion in the Plan, are eligible to participate in the Plan if they have attained at least 18 years of age and have completed six months of eligible service providing they worked at least 500 hours during such plan year.

Table of Contents

Contributions

Eligible employees may defer from 1% to 50% of basic compensation on a before-tax basis, limited to $16,500 in 2010 as prescribed by the IRC. Participants who have attained age 50 before the end of the Plan year are eligible to make additional catch-up contributions.

The Company may, at its sole discretion, make a matching contribution as a percentage of elective deferrals made by the participant on the last day of the Plan year. The Company may also make an employer contribution to the Plan at its sole discretion. Any contribution may be made in cash or in shares of Company common stock. The total amount of Company contributions cannot exceed the amount deductible by the Company for federal income tax purposes. The Company elected not to make any contributions during the year ended December 31, 2010.

Participant Accounts

Participants can direct their investments into a variety of investments offered by Wilmington Trust, including Virco Mfg. Corporation common stock. Individual accounts are maintained for each of the Plan s participants to reflect the participant s contributions, the Company s contributions, if any, and an allocation of the Plan s earnings (losses). The benefit to which a participant is currently entitled is the benefit that can be provided from the participant s vested account.

Payment of Benefits

Upon reaching retirement age, termination of service or death, a participant/beneficiary may elect to receive a lump-sum amount equal to the participant s vested account balance. Company stock held in the participant s account may be distributed in stock unless the participant requests the distribution in cash in lieu of stock. Participants eligible for distributions may elect that their vested balance be rolled over into another eligible retirement plan. Account balances less than $1,000 can be distributed in a single lump-sum cash payment to the participant or beneficiary at the discretion of the Company.

Hardship Withdrawals

Upon certain conditions, participants, while still employed by the Company, are permitted to withdraw, in a single sum, a portion of their vested account as a result of an immediate and heavy financial need. These conditions include unreimbursed medical expenses, the purchase of the participant s principal residence, the payment of post-secondary education tuition, the payment of burial or funeral costs of immediate family members, the payment of natural disaster clean-up on the participant s principal residence or to prevent eviction or foreclosure from the participant s principal residence. A participant s right to make deferrals to the Plan will be suspended for six months after the receipt of a hardship withdrawal.

Vesting

Table of Contents

The participant is immediately 100% vested in the value of his or her contributions and earnings thereon. Additionally, a participant is automatically 100% vested in the value of all employer contributions on the participant s 65th birthday, death, or if the participant becomes permanently disabled while still employed by the Company. However, if employment terminates before the age of 65 for a reason other than death or disability, the participant s vesting in the value of any matching or other Company contributions will be based upon the participant s years of vesting service and in accordance with the following schedule:

Years of Service	Vested Interest
Less than 2	0%
2	20%
3	40%
4	60%
5	80%
6 or more	100%

The amount to which the participant is not vested is subject to forfeiture in accordance with the provisions of the Plan. Forfeitures may be used to pay administrative expenses or to reduce matching contributions. There were no amounts held in the forfeiture account at December 31, 2010 and 2009.

Voting Rights

All shares of Company common stock allocated to participant accounts are voted by Wilmington Trust in accordance with the participant s instructions. Allocated shares not voted by participants are voted pro rata by Wilmington Trust based on votes actually cast by participants.

Notes Receivable From Participants

Participants may borrow the lesser of $50,000 or 50% of their vested account balance, subject to a $1,000 minimum and certain other restrictions. Loans are secured by the vested account balance of the participant. Loans are repayable through payroll deductions over periods ranging up to five years, unless the loan is used to acquire a principal residence, in which case the loan term may be extended. Participant loans bear interest at the prime rate plus 1% per annum collateralized by the participant s vested interest. Interest rates on outstanding loans at December 31, 2010 range from 4.25% to 9.25% per annum, and loans mature through 2017.

2. Summary of Significant Accounting Policies

Basis of Accounting

The accompanying financial statements have been prepared on an accrual basis of accounting in conformity with U.S. generally accepted accounting principles.

Accounting Standards Codification

Table of Contents

The Plan follows accounting standards set by the Financial Accounting Standards Board (the FASB), which establishes generally accepted accounting principles (GAAP) that are followed in reporting net assets available for benefits and changes therein. References to GAAP issued by the FASB in these notes are to the FASB Accounting Standards Codification, referred to as the Codification or ASC.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management of the Plan to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 4 for discussion of fair value measurements.

Net appreciation in fair value of investments consists of the net change in unrealized gains or losses during the year and the realized gain or loss on investments sold during the year.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis, and dividends are recorded on the ex-dividend date.

Payment of Benefits

Benefits are recorded when paid.

Expenses

Substantially all expenses of the Plan are paid by the Plan Sponsor. During 2010, the Company paid expenses related to the Plan of approximately $45,000. Certain indirect expenses are included in the transaction prices of the investments bought and sold and are not separately identified in the statement of changes in net assets available for benefits.

New Accounting Pronouncements

In January 2010, the FASB issued guidance related to fair value measurements and disclosures, adding new disclosure requirements for Levels 1 and 2, separate disclosures of purchases, sales, issuances, and settlements relating to Level 3 measurements and clarification of existing fair value disclosures. The guidance is effective for periods beginning after December 15, 2009, except for the requirement to provide Level 3 activity of purchases, sales, issuances, and settlements on a gross basis, which will be effective for fiscal years beginning after December 15, 2010. The Plan adopted the guidance for the year ended December 31, 2010. Such adoption did not have a material impact on the financial statements.

Table of Contents

In September 2010, the FASB issued guidance clarifying the classification and measurement of participant loans held by defined contribution pension plans. That guidance requires that participant loans be classified as notes receivable from participants, which are segregated from plan investments and measured at their unpaid principal balance, plus any accrued but unpaid interest. The Plan adopted this guidance on a retrospective basis during the year ended December 31, 2010. Net assets of the Plan were not affected by the adoption of this guidance.

In May 2011, the FASB issued Accounting Standards Update (ASU) 2011-04 *Fair Value Measurement (Topic 820),* which requires additional disclosures and clarifies measurements for certain instruments. The guidance is effective for periods beginning after December 15, 2011. Management does not expect a material impact on the financial statements from the required adoption of this ASU due to the nature of the Plan s investments.

Reclassifications

Certain prior year amounts have been reclassified to conform to the current year presentation.

3. Investments

Plan assets are held by Wilmington Trust. Upon enrollment in the Plan, a participant may direct employee contributions among any or all of the investment options.

Participants may change investment choices any business day by transferring a percentage from one investment alternative to another effective as of the end of any business day. The investments in shares of the investment are valued at the closing net asset value per share as determined by the appropriate fund portfolio on a daily basis.

The fair values of individual investments that represent 5% or more of the Plan s net assets at December 31 are as follows:

	2010	2009
Investments at fair value:		
American Money Market Fund A	$ 1,610,841	1,388,429
Alliance Growth & Income Fund	1,230,729	1,029,503
Bond Fund of America	1,664,281	1,531,141
Capital World Growth & Income	1,146,622	977,980
DWS S&P 500 Index Fund-A	2,359,131	2,179,122
American Euro Pacific Growth Fund	986,513	970,494
Growth Fund of America	2,087,150	1,821,436
Income Fund of America	1,444,814	1,286,326
Virco Mfg. Corporation common stock	2,069,238	2,900,399

Investments held by the Plan (including investments bought, sold, as well as held during the period) appreciated (depreciated) as follows during the year ended December 31, 2010:

13

Table of Contents

	2010
Mutual funds	$ 1,266,157
Common stock	(712,103)
	$ 554,054

Unallocated balances held in the Wilmington Trust money market funds were $119,372 and $120,050 at December 31, 2010 and 2009, respectively.

4. Fair Value Measurements

ASC 820 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy under ASC 820 are described below:

Level 1 Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2 Inputs to the valuation methodology include:

Quoted prices for similar assets or liabilities in active markets;

Quoted prices for identical or similar assets or liabilities in inactive markets;

Inputs other than quoted prices that are observable for the asset or liability;

Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset s or liability s fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2010 and 2009.

Money market funds: Valued at the net asset value (NAV) of the fund at year end. The funds are reported based on the quoted market price as of the reporting date.

Table of Contents

Mutual funds: Valued at the NAV of shares held by the Plan at year end. NAV represents the sum of the underlying investments which are traded on active markets.

Virco Mfg. Corporation common stock: Valued at the closing price reported in the active market.

The following table sets forth by level, within the fair value hierarchy, the Plan s investment assets at fair value as of December 31, 2010 and 2009:

	Investment Assets at Fair Value as of December 31, 2010			
	Level 1	Level 2	Level 3	Total
Interest-bearing cash	$ 1,730,213	$	$	$ 1,730,213
Common stock	2,069,238			2,069,238
Allocation funds	2,173,780			2,173,780
Blend funds	4,228,088			4,228,088
Bond funds	1,664,281			1,664,281
Growth funds	2,087,150			2,087,150
Target date funds	421,413			421,413
Value funds	1,779,799			1,779,799
World stock funds	1,146,622			1,146,622
Other funds	430,266			430,266
Total investment assets at fair value	$ 17,730,850	$	$	$ 17,730,850

	Investment Assets at Fair Value as of December 31, 2009			
	Level 1	Level 2	Level 3	Total
Interest-bearing cash	$ 1,508,479	$	$	$ 1,508,479
Common stock	2,900,399			2,900,399
Allocation funds	1,711,772			1,711,772
Blend funds	3,862,334			3,862,334
Bond funds	1,531,141			1,531,141
Growth funds	1,821,436			1,821,436
Target date funds	307,232			307,232
Value funds	1,687,375			

You Must Rely on Your Own Evaluation of the Merits of an Investment Linked to the Reference Stock — In the ordinary course of their business, our affiliates may have expressed views on expected movement in the Reference Stock or the equity securities that they represent, and may do so in the future. These views or reports may be communicated to our clients and clients of our affiliates. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to the Reference Stock may at any time have significantly different views from those of our affiliates. For these reasons, you are encouraged to derive information concerning the Reference Stock from multiple sources, and you should not rely solely on views expressed by our affiliates.

- The Reference Stock and its Underlying Index Are Different — The performance of the Reference Stock may not exactly replicate the performance of its underlying index, because the Reference Stock will reflect transaction costs and fees that are not included in the calculation of its underlying index. It is also possible that the performance of the Reference Stock may not fully replicate or may in certain circumstances diverge significantly from the performance of its underlying index due to the temporary unavailability of certain securities in the secondary market, the performance of any derivative instruments contained in such Reference Stock or due to

RBC Capital Markets, LLC

Auto-Callable Contingent Coupon Barrier Notes
Royal Bank of Canada

other circumstances. The Reference Stock may use futures contracts, options, swap agreements, currency forwards and repurchase agreements in seeking performance that corresponds to its underlying index and in managing cash flows.

During periods of market volatility, securities underlying the Reference Stock may be unavailable in the secondary market, market participants may be unable to calculate accurately the net asset value per share of the Reference Stock and the liquidity of the Reference Stock may be adversely affected. This kind of market volatility may also disrupt the ability of market participants to create and redeem shares of the Reference Stock. Further, market volatility may adversely affect, sometimes materially, the prices at which market participants are willing to buy and sell shares of the Reference Stock. As a result, under these circumstances, the market value of shares of such Reference Stock may vary substantially from the net asset value per share of such Reference Stock. For all of the foregoing reasons, the performance of the Reference Stock may not correlate with the performance of its underlying index as well as the net asset value per share of such Reference Stock, which could materially and adversely affect the value of the Notes in the secondary market and/or reduce any payment under the Notes.

- Management Risk — The Reference Stock is not managed according to traditional methods of ‘‘active’’ investment management, which involve the buying and selling of securities based on economic, financial and market analysis and investment judgment. Instead, the Reference Stock, utilizing a ‘‘passive’’ or indexing investment approach, attempts to approximate the investment performance of its underlying index by investing in a portfolio of securities that generally replicate its underlying index. Therefore, unless a specific security is removed from its underlying index, the Reference Stock generally would not sell a security because the security’s issuer was in financial trouble. In addition, the Reference Stock is subject to the risk that the investment strategy of its investment advisor may not produce the intended results.
- Our Business Activities May Create Conflicts of Interest — We and our affiliates expect to engage in trading activities related to the Reference Stock or the securities held by the Reference Stock that are not for the account of holders of the Notes or on their behalf. These trading activities may present a conflict between the holders’ interests in the Notes and the interests we and our affiliates will have in their proprietary accounts, in facilitating transactions, including options and other derivatives transactions, for their customers and in accounts under their management. These trading activities, if they influence the prices of the Reference Stock, could be adverse to the interests of the holders of the Notes. We and one or more of our affiliates may, at present or in the future, engage in business with XBI or the issuers of the securities held by XBI, including making loans to or providing advisory services. These services could include investment banking and merger and acquisition advisory services. These activities may present a conflict between our or one or more of our affiliates’ obligations and your interests as a holder of the Notes. Moreover, we and our affiliates may have published, and in the future expect to publish, research reports with respect to the Reference Stock. This research is modified from time to time without notice and may express opinions or provide recommendations that are inconsistent with purchasing or holding the Notes. Any of these activities by us or one or more of our affiliates may affect the price of the Reference Stock, and, therefore, the market value of the Notes.
- The Initial Estimated Value of the Notes Will Be Less than the Price to the Public – The initial estimated value set forth on the cover page of this terms supplement and that will be set forth in the final pricing supplement for the Notes does not represent a minimum price at which we, RBCCM or any of our affiliates would be willing to purchase the Notes in any secondary market (if any exists) at any time. If you attempt to sell the Notes prior to maturity, their market value may be lower than the price you paid for them and the initial estimated value. This is due to, among other things, changes in the price of the Reference Stock, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to the public of the underwriting discount and the estimated costs relating to our hedging of the Notes. These factors, together with various credit, market and economic factors over the term of the Notes, are expected to reduce the price at which you may be able to sell the Notes in any secondary market and will affect the value of the Notes in complex and unpredictable ways. Assuming no change in market conditions or any other relevant factors, the price, if any, at which you may be able to sell your Notes prior to maturity may be less than

your original purchase price, as any such sale price would not be expected to include the underwriting discount and the hedging costs relating to the Notes. In addition to bid-ask spreads, the value of the Notes determined for any secondary market price is expected to be based on the secondary rate rather than the internal funding rate used to price the Notes and determine the initial estimated value. As a result, the secondary price will be less than if the internal funding rate was used. The Notes are not

RBC Capital Markets, LLC

designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.

- The Initial Estimated Value of the Notes on the Cover Page of this Terms Supplement and that We Will Provide in the Final Pricing Supplement Are Estimates Only, Calculated as of the Time the Terms of the Notes Are Set –The initial estimated value of the Notes will be based on the value of our obligation to make the payments on the Notes, together with the mid-market value of the derivative embedded in the terms of the Notes. See "Structuring the Notes" below. Our estimates are based on a variety of assumptions, including our credit spreads, expectations as to dividends, interest rates and volatility, and the expected term of the Notes. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Notes or similar securities at a price that is significantly different than we do.

The value of the Notes at any time after the Trade Date will vary based on many factors, including changes in market conditions, and cannot be predicted with accuracy. As a result, the actual value you would receive if you sold the Notes in any secondary market, if any, should be expected to differ materially from the initial estimated value of your Notes.

- Market Disruption Events and Adjustments – The payment at maturity, each Observation Date, and the Valuation Date are subject to adjustment as described in the product prospectus supplement. For a description of what constitutes a market disruption event as well as the consequences of that market disruption event, see "General Terms of the Notes—Market Disruption Events" in the product prospectus supplement.
- The Securities Composing the Underlying Index of the XBI Are Concentrated in One Sector — All of the securities included in the underlying index of the XBI are issued by companies in the biotechnology industry. As a result, the securities that will determine the performance of the XBI and the level of the underlying index, which the XBI seeks to replicate, are concentrated in one sector. Although an investment in the Notes will not give holders any ownership or other direct interests in the securities composing the underlying index, the return on an investment in the Notes will be subject to certain risks associated with a direct equity investment in companies in this market sector. Accordingly, by investing in the Notes, you will not benefit from the diversification which could result from an investment linked to companies that operate in multiple sectors.
- An Investment in the Notes Is Subject to Risks Associated with the Biotechnology Sector — All of the stocks held by the XBI and included in its underlying index are issued by companies whose primary lines of business are directly associated with the biotechnology sector. The profitability of these companies is largely dependent on, among other things, demand for the companies' products, safety of the companies' products, regulatory influences on the biotechnology market (including receipt of regulatory approvals and compliance with complex regulatory requirements), pricing and reimbursement from third party payors, continued innovation, talent attraction and retention, maintaining intellectual property rights and intense industry competition. Any negative developments affecting the biotechnology sector could affect negatively the price of the XBI and, in turn, could have an adverse effect on the value of the Notes and the payments on the Notes.

Auto-Callable Contingent Coupon Barrier Notes
Royal Bank of Canada

INFORMATION REGARDING THE REFERENCE STOCK

Information provided to or filed with the SEC relating to the XBI under the Securities Exchange Act of 1934, as amended, and the Investment Company Act of 1940, as amended, can be obtained through the SEC's website at http://www.sec.gov. In addition, information regarding the Reference Stock may be obtained from other sources including, but not limited to, press releases, newspaper articles and other publicly disseminated documents. We have not participated in the preparation of, or verified, such publicly available information. None of the forgoing documents or filings are incorporated by reference in, and should not be considered part of, this document.

The following information regarding the Reference Stock is derived from publicly available information.

We have not independently verified the accuracy or completeness of reports filed by the Reference Stock with the SEC, information published by it on its website or in any other format, information about it obtained from any other source or the information provided below.

The Notes are not sponsored, endorsed, sold or promoted by the investment adviser. The investment adviser makes no representations or warranties to the owners of the Notes or any member of the public regarding the advisability of investing in the Notes. The investment adviser has no obligation or liability in connection with the operation, marketing, trading or sale of the Notes.

We obtained the information regarding the historical performance of the Reference Stock set forth below from Bloomberg Financial Markets.

We have not independently verified the accuracy or completeness of the information obtained from Bloomberg Financial Markets. The historical performance of the Reference Stock should not be taken as an indication of its future performance, and no assurance can be given as to the market price of the Reference Stock on any Observation Date or on the Valuation Date. We cannot give you assurance that the performance of the Reference Stock will not result in the loss of all or part of your investment.

The SPDR® S&P® Biotech ETF ("XBI")

The XBI is an investment portfolio maintained and managed by SSgA Funds Management, Inc. ("SSFM"). SSFM is the investment advisor to separate investment portfolios, including the Reference Stock. The XBI seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P® Biotechnology Select Industry® Index (the "underlying index"). The underlying index represents the biotechnology sub-industry portion of the Standard & Poor's ("S&P") Total Market Index ("S&P TMI"), an index that measures the performance of the U.S. equity market. The XBI is composed of companies that are in the biotechnology sector. The XBI trades on NYSE Arca under the ticker symbol "XBI."

The XBI utilizes a "replication" investment approach in attempting to track the performance of the underlying index. The XBI typically invests in substantially all of the securities which comprise the underlying index in approximately the same proportions as the underlying index. The XBI will normally invest at least 80% of its total assets in the common stocks that comprise the underlying index.

The S&P® Biotechnology Select Industry® Index

This underlying index is an equal-weighted index that is designed to measure the performance of the applicable portion of the S&P TMI. The S&P TMI includes all U.S. common equities listed on the New York Stock Exchange (the "NYSE") (including NYSE Arca), the NYSE American, the Nasdaq Global Select Market, and the Nasdaq Capital Market. Each of the component stocks in the underlying index is a constituent company within the biotechnology sub-industry portion of the S&P TMI.

To be eligible for inclusion in the underlying index, companies must be in the S&P TMI and must be included in the relevant Global Industry Classification Standard (GICS) sub-industry. The GICS was developed to establish a global standard for categorizing companies into sectors and industries. In addition to the above, companies must satisfy one of the three following combined size and liquidity criteria:

- float-adjusted market capitalization above US$500 million and float-adjusted liquidity ratio above 90%;
-

float-adjusted market capitalization above US$400 million and float-adjusted liquidity ratio above 150%; or

- for current constituents, float-adjusted market capitalization above US$300 million and float-adjusted liquidity ratio greater than or equal to 50%.

All U.S. companies satisfying these requirements are included in the underlying index. The total number of companies in the underlying index should be at least 35. If there are fewer than 35 stocks, stocks from a supplementary list of highly correlated sub-industries that meet the market capitalization and liquidity thresholds above are included in order of their float-adjusted market capitalization to reach 35 constituents. Minimum market capitalization requirements may be relaxed to ensure there are at least 22 companies in the underlying index as of each rebalancing effective date.

RBC Capital Markets, LLC

Auto-Callable Contingent Coupon Barrier Notes
Royal Bank of Canada

Eligibility factors include:

- Market Capitalization: Float-adjusted market capitalization should be at least US$400 million for inclusion in the underlying index. Existing index components must have a float-adjusted market capitalization of US$300 million to remain in the underlying index at each rebalancing.
- Liquidity: The liquidity measurement used is a liquidity ratio, defined as dollar value traded over the previous 12-months divided by the float-adjusted market capitalization as of the underlying index rebalancing reference date. Stocks having a float-adjusted market capitalization above US$500 million must have a liquidity ratio greater than 90% to be eligible for addition to the underlying index. Stocks having a float-adjusted market capitalization between US$400 and US$500 million must have a liquidity ratio greater than 150% to be eligible for addition to the underlying index. Existing index constituents must have a liquidity ratio greater than 50% to remain in the underlying index at the quarterly rebalancing. The length of time to evaluate liquidity is reduced to the available trading period for IPOs or spin-offs that do not have 12 months of trading history.
- Takeover Restrictions: At the discretion of S&P, constituents with shareholder ownership restrictions defined in company bylaws may be deemed ineligible for inclusion in the underlying index. Ownership restrictions preventing entities from replicating the index weight of a company may be excluded from the eligible universe or removed from the underlying index.
- Turnover: S&P believes turnover in index membership should be avoided when possible. At times, a company may appear to temporarily violate one or more of the addition criteria. However, the addition criteria are for addition to the underlying index, not for continued membership. As a result, an index constituent that appears to violate the criteria for addition to the underlying index will not be deleted unless ongoing conditions warrant a change in the composition of the underlying index.

RBC Capital Markets, LLC

Auto-Callable Contingent Coupon Barrier Notes
Royal Bank of Canada

The graph below illustrates the performance of the Reference Stock from January 1, 2009 to January 18, 2019 assuming an Initial Stock Price of $83.38, which was the closing price of the Reference Stock on January 18, 2019. The red line represents a hypothetical Coupon Barrier and Trigger Price of $58.37, which is equal to 70% of the closing price on January 18, 2019, rounded to two decimal places. The actual Coupon Barrier and Trigger Price will be based on the closing price of the Reference Stock on the Trade Date.

RBC Capital Markets, LLC

Auto-Callable Contingent Coupon Barrier Notes
Royal Bank of Canada

SUPPLEMENTAL DISCUSSION OF
U.S. FEDERAL INCOME TAX CONSEQUENCES

The following disclosure supplements, and to the extent inconsistent supersedes, the discussion in the product prospectus supplement under “Supplemental Discussion of U.S. Federal Income Tax Consequences.”

Under Section 871(m) of the Code, a “dividend equivalent” payment is treated as a dividend from sources within the United States. Such payments generally would be subject to a 30% U.S. withholding tax if paid to a non-U.S. holder. Under U.S. Treasury Department regulations, payments (including deemed payments) with respect to equity-linked instruments (“ELIs”) that are “specified ELIs” may be treated as dividend equivalents if such specified ELIs reference an interest in an “underlying security,” which is generally any interest in an entity taxable as a corporation for U.S. federal income tax purposes if a payment with respect to such interest could give rise to a U.S. source dividend. However, the IRS has issued guidance that states that the U.S. Treasury Department and the IRS intend to amend the effective dates of the U.S. Treasury Department regulations to provide that withholding on dividend equivalent payments will not apply to specified ELIs that are not delta-one instruments and that are issued before January 1, 2021. Based on our determination that the Notes are not delta-one instruments, non-U.S. holders should not be subject to withholding on dividend equivalent payments, if any, under the Notes. However, it is possible that the Notes could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the Reference Stock or the Notes, and following such occurrence the Notes could be treated as subject to withholding on dividend equivalent payments. Non-U.S. holders that enter, or have entered, into other transactions in respect of the Reference Stock or the Notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable withholding agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

The accompanying product prospectus supplement notes that FATCA withholding on payments of gross proceeds from a sale or redemption of Notes will only apply to payments made after December 31, 2018. That discussion is modified to reflect regulations proposed by the U.S. Treasury Department in December 2018 indicating an intent to eliminate the requirement under FATCA of withholding on gross proceeds of the disposition of financial instruments. The U.S. Treasury Department has indicated that taxpayers may rely on these proposed regulations pending their finalization. Prospective investors are urged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in the Notes.

SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

We expect that delivery of the Notes will be made against payment for the Notes on or about January 31, 2019, which is the second (2^{nd}) business day following the Trade Date (this settlement cycle being referred to as “T+2”).

For additional information as to the relationship between us and RBCCM, please see the section “Plan of Distribution—Conflicts of Interest” in the prospectus.

In the initial offering of the Notes, they will be offered to investors at a purchase price equal to par, except with respect to certain accounts as indicated on the cover page of this document.

The value of the Notes shown on your account statement may be based on RBCCM’s estimate of the value of the Notes if RBCCM or another of our affiliates were to make a market in the Notes (which it is not obligated to do). That estimate will be based upon the price that RBCCM may pay for the Notes in light of then prevailing market conditions, our creditworthiness and transaction costs. For a period of approximately three months after the issue date of the Notes, the value of the Notes that may be shown on your account statement may be higher than RBCCM’s estimated value of the Notes at that time. This is because the estimated value of the Notes will not include the underwriting discount and our hedging costs and profits; however, the value of the Notes shown on your account statement during that period may initially be a higher amount, reflecting the addition of RBCCM’s underwriting discount and our estimated costs and profits from hedging the Notes. This excess is expected to decrease over time until the end of this period. After this period, if RBCCM repurchases your Notes, it expects to do so at prices that reflect their estimated value.

We may use this terms supplement in the initial sale of the Notes. In addition, RBCCM or another of our affiliates may use this terms supplement in a market-making transaction in the Notes after their initial sale. Unless we or our agent informs the purchaser otherwise in the confirmation of sale, this terms supplement is being used in a market-making transaction.

STRUCTURING THE NOTES

The Notes are our debt securities, the return on which is linked to the performance of the Reference Stock. As is the case for all of our debt securities, including our structured notes, the economic terms of the Notes reflect our actual or perceived creditworthiness at the time of pricing. In addition, because structured notes result in increased operational, funding and liability management costs to us, we typically borrow the funds under these Notes at a rate that is more favorable to us than the rate that we might pay for a conventional fixed or floating rate debt security of comparable maturity. Using this relatively lower implied borrowing rate rather than the secondary market rate, is a factor that is likely to reduce the initial estimated value of the Notes at the time their terms are set. Unlike the estimated value included in this terms supplement or in the final pricing supplement, any value of the Notes determined for purposes of a secondary market transaction may be based on a different funding rate, which may result in a lower value for the Notes than if our initial internal funding rate were used.

In order to satisfy our payment obligations under the Notes, we may choose to enter into certain hedging arrangements (which may include call options, put options or other derivatives) on the issue date with RBCCM or one of our other subsidiaries. The terms of these hedging arrangements take into account a number of factors, including our creditworthiness, interest rate movements, the volatility of the Reference Stock, and the tenor of the Notes. The economic terms of the Notes and their initial estimated value depend in part on the terms of these hedging arrangements.

The lower implied borrowing rate is a factor that reduces the economic terms of the Notes to you. The initial offering price of the Notes also reflects the underwriting commission and our estimated hedging costs. These factors result in the initial estimated value for the Notes on the Trade Date being less than their public offering price. See "Selected Risk Considerations—The Initial Estimated Value of the Notes Will Be Less than the Price to the Public" above.