NEOGENOMICS INC
Form 10KSB
April 02, 2007

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20459

FORM 10-KSB

(X) Annual Report Under Section 13 or 15(d) of the Securities Exchange Act of 1934.

For the Year Ended December 31, 2006

( ) Transition Report Under Section 13 or 15(d) of the Securities Exchange Act of 1934.

For the transition period from _____ to _____.

Commission File Number: 333-72097

NEOGENOMICS, INC.
(Name of small business issuer)

NEVADA	**74-2897368**
(State or other jurisdiction of incorporation or organization)	(IRS Employer I.D. No.)

12701 Commonwealth Drive, Suite 9, Fort Myers, FL 33913
Address of Principal Executive Offices:

(239) 768-0600
Issuers telephone number

Securities registered pursuant to Section 12(b) of the Act:
NONE

Securities registered pursuant to Section 12(g) of the Act:
NONE

Check whether the issuer (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. X Yes __ No

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by referencing Part III of this Form 10-KSB or any amendment to this Form 10-KSB. X

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). _ Yes X No

The issuer's revenues for the most recent fiscal year were approximately $6,476,000.

The aggregate market value of the voting stock held by non-affiliates of the registrant at March 29, 2007 was approximately $23,227,159 (Based on 14,889,205 shares held by non-affiliates and a closing share price of $1.56/share on March 29, 2007). Shares of common stock held by each officer and director and by each person who owns more than 10% of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 29, 2007, 27,695,984 shares of common stock were outstanding.

Transitional small business disclosure format. _ Yes X No

PART I

FORWARD-LOOKING STATEMENTS

This Form 10-KSB contains “forward-looking statements” relating to NeoGenomics, Inc., a Nevada corporation (referred to individually as the “Parent Company” or collectively with all of its subsidiaries as “NeoGenomics” or the “Company” in this Form 10-KSB), which represent the Company’s current expectations or beliefs including, but not limited to, statements concerning the Company’s operations, performance, financial condition and growth. For this purpose, any statements contained in this Form 10-KSB that are not statements of historical fact are forward-looking statements. Without limiting the generality of the foregoing, words such as “may”, “anticipation”, “intend”, “could”, “estimat or “continue” or the negative or other comparable terminology are intended to identify forward-looking statements. These statements by their nature involve substantial risks and uncertainties, such as credit losses, dependence on management and key personnel, variability of quarterly results, and the ability of the Company to continue its growth strategy and competition, certain of which are beyond the Company’s control. Should one or more of these risks or uncertainties materialize or should the underlying assumptions prove incorrect, actual outcomes and results could differ materially from those indicated in the forward-looking statements.

Any forward-looking statement speaks only as of the date on which such statement is made, and the Company undertakes no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time and it is not possible for management to predict all of such factors, nor can it assess the impact of each such factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

ITEM 1. DESCRIPTION OF BUSINESS

NeoGenomics, Inc., a Nevada corporation (referred to individually as the "Parent Company" or collectively with all of its subsidiaries as "NeoGenomics" or the "Company" in this Form 10-KSB) is the registrant for SEC reporting purposes. Our common stock is listed on the NASDAQ Over-The-Counter Bulletin Board (the "OTCBB") under the symbol "NGNM."

NeoGenomics operates cancer-focused testing laboratories that specifically target the rapidly growing genetic and molecular testing segment of the medical laboratory industry. Headquartered in Fort Myers, Florida, the Company's growing network of laboratories currently offers the following types of testing services to pathologists, oncologists, urologists, hospitals, and other laboratories throughout the United States:

a) cytogenetics testing, which analyzes human chromosomes;
b) Fluorescence In-Situ Hybridization (FISH) testing, which analyzes abnormalities at the chromosomal and gene levels;
c) flow cytometry testing, which analyzes gene expression of specific markers inside cells and on cell surfaces; and
d) molecular testing which involves analysis of DNA and RNA to diagnose and predict the clinical significance of various genetic sequence disorders.

All of these testing services are widely utilized in the diagnosis and prognosis of various types of cancer.

The genetic and molecular testing segment of the medical laboratory industry is the most rapidly growing niche of the market. Approximately six years ago, the World Health Organization reclassified cancers as genetic anomalies. This growing awareness of the genetic root behind most cancers combined with advances in technology and genetic research, including the complete sequencing of the human genome, have made possible a whole new set of tools to diagnose and treat diseases. This has opened up a vast opportunity for laboratory companies that are positioned to address this growing market segment.

The medical testing laboratory market can be broken down into three primary segments:

• clinical lab testing,
• anatomic pathology testing, and
• genetic and molecular testing.

Clinical laboratories are typically engaged in high volume, highly automated, lower complexity tests on easily procured specimens such as blood and urine. Clinical lab tests often involve testing of a less urgent nature, for example, cholesterol testing and testing associated with routine physical exams. This type of testing yields relatively low average revenue per test. Anatomic pathology ("AP") testing involves evaluation of tissue, as in surgical pathology, or cells as in cytopathology. The most widely performed AP procedures include the preparation and interpretation of pap smears, skin biopsies, and tissue biopsies. The higher complexity AP tests typically involve more labor and are more technology intensive than clinical lab tests. Thus AP tests generally result in higher average revenue per test than clinical lab tests.

Genetic and molecular testing typically involves analyzing chromosomes, genes or base pairs of DNA or RNA for abnormalities. Genetic and molecular testing have become important and highly accurate diagnostic tools over the last five years. New tests are being developed at an accelerated pace, thus this market niche continues to expand rapidly. Genetic and molecular testing requires highly specialized equipment and credentialed individuals (typically MD or PhD level) to certify results and typically yields the highest average revenue per test of the three market segments. The following chart shows the differences between the genetic and molecular niche and other segments of the medical laboratory industry. Up until approximately five years ago, the genetic and molecular testing niche was considered to be part of the Anatomic Pathology segment, but given its rapid growth, it is now more routinely broken out and accounted for as its own segment.

COMPARISON OF THE MEDICAL LABORATORY MARKET SEGMENTS (1)

Attributes	**Clinical**	**Anatomic Pathology**	**Genetic/Molecular**
Testing Performed On	Blood, Urine	Tissue/Cells	Chromosomes/Genes/DNA
Testing Volume	High	Low	Low
Physician Involvement	Low	High - Pathologist	Low - Medium
Malpractice Ins. Required	Low	High	Low
Other Professionals Req.	None	None	Cyto/Molecular geneticist
Level of Automation	High	Low-Moderate	Moderate
Diagnostic in Nature	Usually Not	Yes	Yes
Types of Diseases Tested	Many Possible	Primarily to Rule out Cancer	Rapidly Growing
Typical per Price/Test	$5 - $35/Test	$25 - $500/Test	$200 - $1,000/Test
Estimated Size of Market	$25 - $30 Billion	$10 - $12 Billion	$4 - $5 Billion (2)
Estimated Annual Growth Rate	4% -5%	6% - 7%	25+%
Established Competitors	Quest Diagnostics LabCorp Bio Reference Labs DSI Laboratories Hospital Labs Regional Labs	Quest Diagnostics LabCorp Genzyme Genetics Ameripath Local Pathologists	Genzyme Genetics Quest Diagnostics LabCorp Major Universities

(1) Derived from industry analyst reports

(2) Includes flow cytometry testing, which historically has been classified under anatomic pathology.

NeoGenomics', primary focus is to provide high complexity laboratory testing for the community-based pathology and oncology marketplace. Within these key market segments, we currently provide our services to pathologists and oncologists in the United States that perform bone marrow and/or peripheral blood sampling for the diagnosis of liquid tumors (leukemias and lymphomas) and archival tissue referral for analysis of solid tumors such as breast cancer. A secondary strategic focus targets community-based urologists, due to the availability of UroVysion®, a FISH-based test for the initial diagnosis of bladder cancer and early detection of recurrent disease. We focus on community-based practitioners for two reasons: First, academic pathologists and associated clinicians tend to have their testing needs met within the confines of their university affiliation. Secondly, most of the cancer care in the United States is administered by community based practitioners, not in academic centers, due to ease of local access,. Moreover, within the community-based pathologist segment it is not our intent to willingly compete with our customers for testing services that they may seek to perform themselves. Fee-for-service pathologists for example, derive a significant portion of their annual revenue from the interpretation of biopsy specimens. Unlike other larger laboratories, which strive to perform 100% of such testing services themselves, we do not intend to compete with our customers for such specimens. Rather, our high complexity cancer testing focus is a natural extension of and complementary to many of the services that our community-based customers often perform within their own practices. As such, we believe our relationship as a non-competitive consultant, empowers these physicians to expand their testing breadth and provide a menu of services that matches or exceeds the level of service found in academic centers of excellence around the country.

We continue to make progress growing our testing volumes and revenue beyond our historically focused effort in Florida due to our expanding field sales footprint. As of March 31, 2007, NeoGenomics' sales organization totaled 9 individuals. Recent, key hires included our Vice President of Sales & Marketing, and various sales managers and representatives in the Northeastern, Southeastern, and Western states. We intend to continue adding sales representatives on a quarterly basis throughout the year As more sales representatives are added, the base of our business outside of Florida will continue to grow and ultimately eclipse that which is generated within the state.

We are successfully competing in the marketplace based on the quality and comprehensiveness of our test results, and our innovative flexible levels of service, industry-leading turn-around times, regionalization of laboratory operations and ability to provide after-test support to those physicians requesting consultation. 2006 saw the introduction of our Genetic Pathology Solutions (GPS) product that provides summary interpretation of multiple testing platforms all in one consolidated report. Response from clients has been very favorable and provides another option for those customers that require a higher degree of customized service.

Another important service was initiated in December 2006 when we became the first laboratory to offer technical-component only (tech-only) FISH testing to the key community-based pathologist market segment. NeoFISH has been enthusiastically received and has provided our sales team with another differentiating product to meet the needs of our target community-based pathologists. With NeoFISH these customers are able to retain a portion of the overall testing revenue from such FISH specimens themselves, which serves to much better align their interests with those of NeoGenomics than what might otherwise be possible with larger laboratory competitors.

We believe NeoGenomics average 3-5 day turn-around time for our cytogenetics services remains an industry-leading benchmark. The timeliness of results continues to increase the usage patterns of cytogenetics and act as a driver for other add-on testing requests by our referring physicians. Based on anecdotal information, we believe that typical cytogenetics labs have 7-14 day turn-around times on average with some labs running as high as 21 days. Traditionally, longer turn-around times for cytogenetics tests have resulted in fewer tests being ordered since there is an increased chance that the test results will not be returned within an acceptable diagnostic window when other adjunctive diagnostic test results are available. We believe our turn-around times result in our referring physicians requesting more of our testing services in order to augment or confirm other diagnostic tests, thereby giving us a significant competitive advantage in marketing our services against those of other competing laboratories.

In 2006 we began an aggressive campaign to form new laboratories around the country that will allow us to regionalize our operations to be closer to our customers. High complexity laboratories within the cancer testing niche have frequently operated a core facility on one or both coasts to service the needs of their customers around the country. Informal surveys of customers and prospects uncovered a desire to do business with a laboratory with national breadth but with a more local presence. In such a scenario, specimen integrity, turnaround-time of results, client service support, and interaction with our medical staff are all enhanced. In 2006, NeoGenomics achieved the milestone of opening two other laboratories to complement our headquarters in Fort Myers, Florida. NeoGenomics facilities in Nashville, Tennessee and Irvine, California received the appropriate state and CLIA licensure and are now receiving live specimens. As situations dictate and opportunities arise, we will continue to develop and open new laboratories, seamlessly linked together by our optimized Laboratory Information System (LIS), to better meet the regionalized needs of our customers.

2006 also saw the initial establishment of the NeoGenomics Contract Research Organization ("CRO") division based at our Irvine, CA facility. This division was created to take advantage of our core competencies in genetic and molecular high complexity testing and act as a vehicle to compete for research projects and clinical trial support contracts in the biotechnology and pharmaceutical industries. The CRO division will also act as a development conduit for the validation of new tests which can then be transferred to our clinical laboratories and be offered to our clients. We envision the CRO as a way to infuse some intellectual property into the mix of our services and in time create a more "vertically integrated" laboratory that can potentially offer additional clinical services of a more proprietary nature.

As NeoGenomics grows, we anticipate offering additional tests that broaden our focus from genetic and molecular testing to more traditional types of anatomic pathology testing that are complementary to our current test offerings. At no time do we expect to intentionally compete with fee-for-service pathologists for services of this type and Company sales efforts will operate under a strict "right of first refusal" philosophy that supports rather than undercuts the practice of community-based pathology. We believe that by adding additional types of tests to our product offering we will be able to capture increases in our testing volumes through our existing customer base as well as more easily attract new customers via the ability to package our testing services more appropriately to the needs of the market.

Historically, the above approach has borne out well for the Company. For most of FY 2004, the Company only performed one type of test in-house, cytogenetics, which resulted in only one test being performed per customer requisition for most of the year and an average revenue per requisition of approximately $490. With the subsequent addition of FISH testing in FY 2005 and flow cytometry to our pre-existing cytogenetics testing in FY 2006, our average revenue/requisition increased by 35.6% in FY 2005 to approximately $632 and a further 7% in FY 2006 to approximately $677/requisition. We believe with focused sales and marketing efforts and the recent launch of GPS reporting, NeoFISH tech-only FISH services, and the future addition of additional testing platforms, the Company can continue to increase our average revenue per customer requisition.

		FY 2006		**FY 2005**	**% Inc (Dec)**
Customer Requisitions Rec'd (Cases)		9,563		2,982	220.7%
Number of Tests Performed		12,838		4,082	214.5%
Average Number of Tests/Requisition		1.34		1.37	(2.1%)
Total Testing Revenue	$	6,475,996	$	1,885,324	243.5%
Average Revenue/Requisition	$	677.19	$	632.23	7.1%
Average Revenue/Test	$	504.44	$	461.86	9.2%

We believe this bundled approach to testing represents a clinically sound practice. In addition, as the average number of tests performed per requisition increases, this should drive large increases in our revenue and afford the Company significant synergies and efficiencies in our operations and sales and marketing activities. For instance, initial testing for many hematologic cancers may yield total revenue ranging from approximately $1,800 - $3,600/requisition and is generally comprised of a combination of some or all of the following tests: cytogenetics, fluorescence in-situ hybridization (FISH), flow cytometry and, per client request, morphology testing. Whereas in FY 2004, we only addressed approximately $500 of this potential revenue per requisition; in FY 2005 we addressed approximately $1,200 - $1,900 of this potential revenue per requisition; and in FY 2006, we could address this revenue stream (see below), dependent on medical necessity criteria and guidelines:

		Average Revenue/Test
Cytogenetics	$	400-$500
Fluorescence In Situ Hybridization (FISH)		
- Technical component	$	300-$1000
- Professional component	$	200-$500
Flow cytometry		
- Technical component	$	400-$700
- Professional component	$	100-$200
Morphology	$	400-$700
Total	$	1,800-$3,600

Business of NeoGenomics

Services

We currently offer four primary types of testing services: cytogenetics, flow cytometry, FISH testing and molecular testing.

Cytogenetics Testing. Cytogenetics testing involves analyzing chromosomes taken from the nucleus of cells and looking for abnormalities in a process called karyotyping. A karyotype evaluates the entire 46 human chromosomes by number and banding patterns to identify abnormalities associated with disease. In cytogenetics testing, we typically analyze the chromosomes of 20 different cells. Examples of cytogenetics testing include bone marrow aspirate or peripheral blood analysis to diagnose various types of leukemia and lymphoma, and amniocentesis testing of pregnant women to diagnose genetic anomalies such as Down syndrome in a fetus.

Cytogenetics testing by large national reference laboratories and other competitors has historically taken anywhere from 10-14 days on average to obtain a complete diagnostic report. We believe that as a result of this timeframe, many practitioners have refrained to some degree from ordering such tests because the results traditionally were not returned within an acceptable diagnostic window. NeoGenomics has designed our laboratory operations in order to complete cytogenetics tests for most types of biological samples, produce a final diagnostic report and make it available via fax or online viewing within 3-5 days. These turnaround times are among the best in the industry and we believe that, with further demonstration of our consistency in generating results, more physicians will incorporate cytogenetics testing into their diagnostic regimens and thus drive incremental growth in our business.

Flow Cytometry Testing. Flow cytometry testing analyzes clusters of differentiation on cell surfaces. Gene expression of many cancers creates protein-based clusters of differentiation on the cell surfaces that can then be traced back to a specific lineage or type of cancer. Flow cytometry is a method of separating liquid specimens or disaggregated tissue into different constituent cell types. This methodology is used to determine which of these cell types is abnormal in a patient specific manner. Flow cytometry is important in developing an accurate diagnosis, defining the patient's prognosis, and clarifying what treatment options may be optimal. Flow cytometry testing is performed using sophisticated lasers and will typically analyze over 100,000 individual cells in an automated fashion. Flow cytometry testing is highly complementary with cytogenetics and the combination of these two testing methodologies allows the results from one test to complement the findings of the other methodology, which can lead to a more accurate snapshot of a patient's disease state.

FISH Testing. As an adjunct to traditional chromosome analysis, we offer Fluorescence In Situ Hybridization (FISH) testing to extend our capabilities beyond routine cytogenetics. FISH testing permits identification of the most frequently occurring numerical chromosomal abnormalities in a rapid manner by looking at specific genes that are implicated in cancer. FISH was originally used as an additional staining methodology for metaphase analysis (cells in a divided state after they have been cultured), but the technique is now routinely applied to interphase analysis (non-dividing quiescent cells). During the past 5 years, FISH testing has begun to demonstrate its considerable diagnostic potential. The development of molecular probes by using DNA sequences of differing sizes, complexity, and specificity, coupled with technological enhancements (direct labeling, multicolor probes, computerized signal amplification, and image analysis) make FISH a powerful investigative and diagnostic tool.

Molecular Testing. Molecular testing primarily involves the analysis of DNA to screen for and diagnose single gene disorders such as cystic fibrosis and Tay-Sachs disease as well as abnormalities in liquid and solid tumors. There are approximately 1.0 - 2.0 million base pairs of DNA in each of the estimated 25,000 genes located across the 46 chromosomes in the nucleus of every cell. Molecular testing allows us to look for variations in this DNA that are associated with specific types of diseases. Today there are molecular tests for about 500 genetic diseases. However, the majority of these tests remain available under the limited research use only designation and are only offered on a restricted basis to family members of someone who has been diagnosed with a genetic condition. About 50 molecular tests are now available for the diagnosis, prognosis or monitoring of various types of cancers and physicians are becoming more comfortable ordering such adjunctive tests. We currently provide these tests on an outsourced basis. We anticipate in the near future performing some of the more popular tests within our facilities as the number of requests continues to increase. Although reimbursement rates for these new molecular tests still need to improve, we believe that molecular testing is an important and growing market segment with many new diagnostic tests being developed every year. We are committed to providing the latest and most accurate testing to clients and we will invest accordingly when market demand warrants.

Distribution Methods

The Company currently performs its testing services at each of its' three main clinical laboratory locations: Fort Myers, FL, Nashville, TN and Irvine, CA, and then produces a report for the requesting physician. The Company currently out sources all of its molecular testing to third parties, but expects to validate some of this testing in-house during the next several years to meet client demand.

Competition

We are engaged in segments of the medical testing laboratory industry that are highly competitive. Competitive factors in the genetic and molecular testing business generally include reputation of the laboratory, range of services offered, pricing, convenience of sample collection and pick-up, quality of analysis and reporting and timeliness of delivery of completed reports.

Our competitors in the United States are numerous and include major medical testing laboratories and biotechnology research companies. Many of these competitors have greater financial resources and production capabilities. These companies may succeed in developing service offerings that are more effective than any that we have or may develop and may also prove to be more successful than we are in marketing such services. In addition, technological advances or different approaches developed by one or more of our competitors may render our products obsolete, less effective or uneconomical.

We estimate that the United States market for genetics and molecular testing is divided among approximately 300 laboratories. However, approximately 80% of these laboratories are attached to academic institutions and only provide clinical services to their affiliate university hospitals. We further believe that less than 20 laboratories market their services nationally. We believe that the industry as a whole is still quite fragmented, with the top 20 laboratories accounting for approximately 50% of market revenues.

We intend to continue to gain market share by offering industry leading turnaround times, a broad service menu, high-quality test reports, and enhanced post-test consultation services. In addition, we have a fully integrated and interactive virtual Laboratory Information System that enables us to report real time results to customers in a secure environment.

Suppliers

The Company orders its laboratory and research supplies from large national laboratory supply companies such as Fisher Scientific, Inc., Invitrogen and Beckman Coulter and does not believe any disruption from any one of these suppliers would have a material effect on its business. The Company orders the majority of its FISH probes from Abbott Laboratories and as a result of their dominance of that marketplace and the absence of any competitive alternatives, if they were to have a disruption and not have inventory available it could have a material effect on our business. This risk cannot be completely offset due to the fact that Abbott Laboratories has patent protection which limits other vendors from supplying these probes.

Dependence on Major Customers

We currently market our services to pathologists, oncologists, urologists, hospitals and other clinical laboratories. During 2006, we performed 12,838 individual tests. Ongoing sales efforts have decreased dependence on any given source of revenue. Notwithstanding this fact, several key customers still account for a disproportionately large case volume and revenues. In 2005, four customers accounted for 65% of our total revenue. For 2006, 3 customers represented 61% of our revenue with each party representing greater than 15% of such revenues. However, as a result of our rapid increase in revenues from other customers, these 3 customers only represented 41% of our monthly revenue in December 2006. Given the substantial increase in customers in the first quarter of 2007, we expect this percentage to continue to decline. In the event that we lost one of these customers, we would potentially lose a significant percentage of our revenues.

Trademarks

The “NeoGenomics” name and logo has been trademarked with the United States Patent and Trademark Office.

Number of Employees

As of December 31, 2006, we had 48 full-time employees. In addition, our Acting Principal Financial Officer and a pathologist serve as consultants to the Company on a part-time basis. On December 31, 2005, we had 23 employees. Our employees are not represented by any union and we believe our employee relations are good.

Government Regulation

Our business is subject to government regulation at the federal, state and local levels, some of which regulations are described under "Clinical Laboratory Operations," "Anti-Fraud and Abuse Laws," “The False Claims Act,” "Confidentiality of Health Information," and "Food and Drug Administration" below.

Clinical Laboratory Operations

Genetics and Molecular Testing. The Company operates clinical laboratories in Fort Myers, FL, Nashville, TN, and Irvine, CA. All locations have obtained CLIA certification under the federal Medicare program, the Clinical Laboratories Improvement Act of 1967 and the Clinical Laboratory Amendments of 1988 (collectively “CLIA ‘88”) as well as state licensure as required in FL, TN, and CA**.** CLIA ‘88 provides for the regulation of clinical laboratories by the U.S. Department of Health and Human Services (“HHS”). Regulations promulgated under the federal Medicare guidelines, CLIA ’88 and the clinical laboratory licensure laws of the various states affect our genetics laboratories.

The federal and state certification and licensure programs establish standards for the operation of clinical laboratories, including, but not limited to, personnel and quality control. Compliance with such standards is verified by periodic inspections by inspectors employed by federal or state regulatory agencies. In addition, federal regulatory authorities require participation in a proficiency testing program approved by HHS for many of the specialties and subspecialties for which a clinical laboratory seeks approval from Medicare or Medicaid and certification under CLIA `88. Proficiency testing programs involve actual testing of specimens that have been prepared by an entity running an approved program for testing by a clinical laboratory.

Information Regarding the Reference Asset

The MSCI EAFE® Index

We have derived all information contained in this pricing supplement regarding the MSCI EAFE® Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information, including Bloomberg. The information reflects the policies of, and is subject to change by MSCI Inc., which we refer to as "MSCI." MSCI has no obligation to continue to publish, and may discontinue publication of, the MSCI EAFE® Index. The consequences of MSCI discontinuing publication of the Reference Asset are discussed in the section of the accompanying product prospectus supplement entitled "General Terms of the Notes — Unavailability of the Level of the Reference Asset."

The MSCI EAFE® Index is a stock index calculated, published and disseminated daily by MSCI through numerous data vendors, on the MSCI website and in real time on Bloomberg and Reuters Limited.

The MSCI EAFE® Index is a free float adjusted market capitalization index and is part of the MSCI Global Investable Market Indices, the methodology of which is described below. The index is considered a "standard" index, which means it consists of all eligible large capitalization and mid-capitalization stocks, as determined by MSCI, in the relevant market. Additional information about the MSCI Global Investable Market Indices is available on the following website: msci.com/index-methodology. Daily closing price Information for the MSCI EAFE® Index is available on the following website:

msci.com

We are not incorporating by reference these websites or any material they include in this pricing supplement.

The MSCI EAFE® Index is intended to provide performance benchmarks for the developed equity markets in Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom. The constituent stocks of the MSCI EAFE® Index are derived from the constituent stocks in the 21 MSCI standard single country indices for the developed market countries listed above. The MSCI EAFE® Index has a base date of December 31, 1969.

Index Stock Weighting by Country
as of November 30, 2018:

Country:	**Percentage (%)***
Japan	24.76%
United Kingdom	17.30%
France	10.94%
Germany	8.88%
Switzerland	8.72%
Other	29.41%

* Information provided by MSCI. Percentages may not sum to 100% due to rounding.

MSCI divides the companies included in the MSCI EAFE® Index into eleven Global Industry Classification Sectors: Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Real Estate, Telecommunication Services and Utilities.

Index Stock Weighting by Sector as of November 30, 2018:

Sector**	**Percentage (%)***
Financials	19.74%
Industrials	14.35%
Consumer Discretionary	11.96%
Health Care	11.68%
Consumer Staples	11.47%
Materials	7.32%
Information Technology	6.61%
Energy	5.79%
Telecommunication Services	3.99%
Real Estate	3.58%
Utilities	3.51%

* Information provided by MSCI. Percentages may not sum to 100% due to rounding.

** Sector designations are determined by the MSCI using criteria it has selected or developed. Index sponsors may use very different standards for determining sector designations. In addition, many companies operate in a number of sectors, but are listed in only one sector and the basis on which that sector is selected may also differ. As a result, sector comparisons between indices with different index sponsors may reflect differences in methodology as well as actual differences in the sector composition of the indices. As of the close of business on September 21, 2018, MSCI and S&P Dow Jones Indices LLC updated the Global Industry Classification Sector structure. Among other things, the update broadened the Telecommunications Services sector and renamed it the Communication Services sector. The renamed sector includes the previously existing Telecommunication Services Industry group, as well as the Media Industry group, which was moved from the Consumer Discretionary sector and renamed the Media & Entertainment Industry group. The Media & Entertainment Industry group contains three industries: Media, Entertainment and Interactive Media & Services. The Media industry continues to consist of the Advertising, Broadcasting, Cable & Satellite and Publishing sub-industries. The Entertainment industry contains the Movies & Entertainment sub-industry (which includes online entertainment streaming companies in addition to companies previously classified in such industry prior to September 21, 2018) and the Interactive Home Entertainment sub-industry (which includes companies previously classified in the Home Entertainment Software sub-industry prior to September 21, 2018 (when the Home Entertainment Software sub-industry was a sub-industry in the Information Technology sector), as well as producers of interactive gaming products, including mobile gaming applications). The Interactive Media & Services industry and sub-industry includes companies engaged in content and information creation or distribution through proprietary platforms, where revenues are derived primarily through pay-per-click advertisements, and includes search engines, social media and networking platforms, online classifieds and online review companies. The Global Classification Sector structure changes were implemented in the reference asset in connection with the November 2018 semi-annual index review.

Construction of the MSCI Indices

MSCI undertakes an index construction process, which involves: (i) defining the equity universe; (ii) determining the market investable equity universe for each market; (iii) determining market capitalization size segments for each market; (iv) applying index continuity rules for the standard index; (v) creating style segments within each size segment within each market; and (vi) classifying securities under the Global Industry Classification Standard. The index construction methodology differs in some cases depending on whether the relevant market is considered a developed market or an emerging market. The MSCI EAFE® Index is a developed market index. The MSCI EAFE® Index is a standard index, meaning that only securities that would qualify for inclusion in a large cap index or a mid cap index will be included as described below.

Defining the Equity Universe

(i) Identifying Eligible Equity Securities: The equity universe initially looks at securities listed in any of the countries in the MSCI global index series, which will be classified as either “developed markets” or “emerging markets.” All listed equity securities, including real estate investment trusts and certain income trusts in Canada are eligible for inclusion in the equity universe. Limited partnerships, limited liability companies and business trusts, which are listed in the U.S. and are not structured to be taxed as limited partnerships, are likewise eligible for inclusion in the equity universe. Conversely, mutual funds, exchange traded funds, equity derivatives and most investment trusts are not eligible for inclusion in the equity universe. Preferred shares that exhibit characteristics of equity securities are eligible.

(ii) Country Classification of Eligible Securities: Each company and its securities (i.e., share classes) are classified in one and only one country, which allows for a distinctive sorting of each company by its respective country.

Determining the Market Investable Equity Universes

A market investable equity universe for a market is derived by (1) identifying eligible listings for each security in the equity universe; and (2) applying investability screens to individual companies and securities in the equity universe that are classified in that market. A market is generally equivalent to a single country. The global investable equity universe is the aggregation of all market investable equity universes.

Identifying Eligible Listings: A security may have a listing in the country where it is classified (a "local listing") and/or in a different country (a "foreign listing"). A security may be represented by either a local listing or a foreign listing (including a depositary receipt) in the global investable equity universe. A security may be represented by a

(1) foreign listing only if the security is classified in a country that meets the foreign listing materiality requirement (as described below), and the security's foreign listing is traded on an eligible stock exchange of a developed market country if the security is classified in a developed market country or, if the security is classified in an emerging market country, an eligible stock exchange of a developed market country or an emerging market country.

In order for a country to meet the foreign listing materiality requirement, MSCI determines all securities represented by a foreign listing that would be included in the country's MSCI Country Investable Market Index if foreign listings were eligible from that country. The aggregate free-float adjusted market capitalization for all such securities should represent at least (i) 5% of the free float-adjusted market capitalization of the relevant MSCI Country Investable

Market Index and (ii) 0.05% of the free-float adjusted market capitalization of the MSCI ACWI Investable Market Index. If a country does not meet the foreign listing materiality requirement, then securities in that country may not be represented by a foreign listing in the global investable equity universe.

(2) Applying Investability Screens: The investability screens used to determine the investable equity universe in each market are:

(i) Equity Universe Minimum Size Requirement: This investability screen is applied at the company level. In order to be included in a market investable equity universe, a company must have the required minimum full market capitalization. The equity universe minimum size requirement applies to companies in all markets and is derived as follows:

· First, the companies in the developed market equity universe are sorted in descending order of full market capitalization and the cumulative coverage of the free float-adjusted market capitalization of the developed market equity universe is calculated for each company. Each company's free float-adjusted market capitalization is represented by the aggregation of the free float-adjusted market capitalization of the securities of that company in the equity universe.

· Second, when the cumulative free float-adjusted market capitalization coverage of 99% of the sorted equity universe is achieved, by adding each company's free float-adjusted market capitalization in descending order, full market capitalization of the company that reaches the 99% threshold defines the equity universe minimum size requirement.

· The rank of this company by descending order of full market capitalization within the developed market equity universe is noted, and will be used in determining the equity universe minimum size requirement at the next rebalance.

As of November 2017, the equity universe minimum size requirement was set at US$261,000,000. Companies with a full market capitalization below this level are not included in any market investable equity universe. The equity universe minimum size requirement is reviewed and, if necessary, revised at each semi-annual index review, described below.

(ii) Equity Universe Minimum Free Float-Adjusted Market Capitalization Requirement: This investability screen is applied at the individual security level. To be eligible for inclusion in a market investable equity universe, a security must have a free float-adjusted market capitalization equal to or higher than 50% of the equity universe minimum size requirement.

(iii) Minimum Liquidity Requirement: This investability screen is applied at the individual security level. To be eligible for inclusion in a market investable equity universe, a security must have at least one eligible listing that has adequate liquidity as measured by its twelve-month and three-month annualized traded value ratio. This measure attempts to mitigate the impact of extreme daily trading volumes and takes into account the free float-adjusted market capitalization of securities. A minimum liquidity level of 20% of the 3-month annualized traded value ratio and 90% of 3-month frequency of trading over the last 4 consecutive quarters, as well as 20% of the 12-month annualized traded value ratio, are required for inclusion of a security in a market investable equity universe of a developed market.

Only one listing per security may be included in the market investable equity universe. In instances where a security has two or more eligible listings that meet the above liquidity requirements, then the following priority rules are used to determine which listing will be used for potential inclusion of the security in the market investable equity universe:

(a) Local listing

(b) Foreign listing in the same geographical region (MSCI classifies markets into three main geographical regions: EMEA, Asia Pacific and Americas. If the security has several listings in the same geographical region, then the listing with the highest 3-month ATVR will be used).

(c) Foreign listing in a different geographical region (if the security has several listings in a different geographical region, then the listing with the highest 3-month ATVR will be used).

Due to liquidity concerns relating to securities trading at very high stock prices, a security that is currently not a constituent of a MSCI Global Investable Markets Index that is trading at a stock price above US$10,000 will fail the liquidity screening and will not be included in any market investable equity universe.

(iv) Global Minimum Foreign Inclusion Factor Requirement: This investability screen is applied at the individual security level. To determine the free float of a security, MSCI considers the proportion of shares of such security available for purchase in the public equity markets by international investors. In practice, limitations on the investment opportunities for international investors include: strategic stakes in a company held by private or public shareholders whose investment objective indicates that the shares held are not likely to be available in the market; limits on the proportion of a security's share capital authorized for purchase by non-domestic investors; or other foreign investment restrictions which materially limit the ability of foreign investors to freely invest in a particular equity market, sector or security.

MSCI will then derive a "foreign inclusion factor" for the company that reflects the proportion of shares outstanding that is available for purchase in the public equity markets by international investors. MSCI will then "float-adjust" the weight of each constituent company in an index by the company's foreign inclusion factor. Typically, securities with a free float adjustment ratio of less than 0.15 will not be eligible for inclusion in the MSCI EAFE® Index.

Once the free float factor has been determined for a security, the security's total market capitalization is then adjusted by such free float factor, resulting in the free float-adjusted market capitalization figure for the security.

(v) Minimum Length of Trading Requirement: This investability screen is applied at the individual security level. For an initial public offering to be eligible for inclusion in a market investable equity universe, the new issue must have started trading at least three months before the implementation of a semi-annual index review. This requirement is applicable to small new issues in all markets. Large initial public offerings are not subject to the minimum length of trading requirement and may be included in a market investable equity universe and a standard index, such as the MSCI EAFE® Index, outside of a quarterly or semi-annual index review.

(vi) Minimum Foreign Room Requirement: This investability screen is applied at the individual security level. For a security that is subject to a foreign ownership limit to be eligible for inclusion in a market investable equity universe, the proportion of shares still available to foreign investors relative to the maximum allowed (referred to as "foreign room") must be at least 15%.

Defining Market Capitalization Size Segments for Each Market

Once a market investable equity universe is defined, it is segmented into the following size-based indices:

- Investable Market Index (Large Cap + Mid Cap + Small Cap)
- Standard Index (Large Cap + Mid Cap)
- Large Cap Index
- Mid Cap Index
- Small Cap Index

Creating the size segment indices in each market involves the following steps: (i) defining the market coverage target range for each size segment; (ii) determining the global minimum size range for each size segment; (iii) determining the market size segment cutoffs and associated segment number of companies; (iv) assigning companies to the size segments; and (v) applying final size-segment investability requirements. For developed market indices, the market coverage for a standard index is 85%. As of November 2017, the global minimum size range for a developed market standard index is a full market capitalization of USD 3.05 billion to USD 7.02 billion.

Index Continuity Rules for Standard Indices

In order to achieve index continuity, as well as provide some basic level of diversification within a market index, notwithstanding the effect of other index construction rules, a minimum number of five constituents will be maintained for a developed market standard index and a minimum number of three constituents will be maintained for an emerging market standard index, and involves the following steps:

- If after the application of the index construction methodology, a developed market standard index contains fewer than five securities or an emerging market standard index contains fewer than three securities, then the largest securities by free float-adjusted market capitalization are added to the index in order to reach the minimum number of required constituents.
- At subsequent index reviews, if the minimum number of securities described above is not met, then after the market investable equity universe is identified, the securities are ranked by free float-adjusted market capitalization, however, in order to increase stability the free float-adjusted market capitalization of the existing index constituents (prior to review) is multiplied by 1.50, and securities are added until the desired minimum number of securities is reached.

“Constituent Index” means any of the developed equity market country indices comprising the MSCI EAFE® Index.
Creating Style Indices within Each Size Segment

All securities in the investable equity universe are classified into value or growth segments. The classification of a security into the value or growth segment is used by MSCI to construct additional indices.

Classifying Securities under the Global Industry Classification Standard

All securities in the global investable equity universe are assigned to the industry that best describes their business activities. The Global Industry Classification Standard classification of each security is used by MSCI to construct additional indices.

Calculation Methodology for the MSCI EAFE® Index

The performance of the MSCI EAFE® Index is a free float weighted average of the U.S. dollar values of its component securities.

Prices used to calculate the component securities are the official exchange closing prices or prices accepted as such in the relevant market. In the case of a market closure, or if a security does not trade on a specific day or during a specific period, MSCI carries forward the previous day's price (or latest available closing price). In the event of a market outage resulting in any component security price to be unavailable, MSCI will generally use the last reported price for such component security for the purpose of performance calculation unless MSCI determines that another price is more appropriate based on the circumstances. Closing prices are converted into U.S. dollars, as applicable, using the closing spot exchange rates calculated by WM/Reuters at 4:00 P.M. London Time.

Maintenance of the MSCI EAFE® Index

In order to maintain the representativeness of the MSCI EAFE® Index, structural changes to the index as a whole may be made by adding or deleting component securities. Currently, such changes in the MSCI EAFE® Index may generally only be made on four dates throughout the year: after the close of the last business day of each February, May, August and November.

Each country index is maintained with the objective of reflecting, on a timely basis, the evolution of the underlying equity markets. In maintaining each component country index, emphasis is also placed on its continuity, continuous investability of constituents and replicability of the index and on index stability and minimizing turnover.

MSCI classifies index maintenance in three broad categories. The first consists of ongoing event related changes, such as mergers and acquisitions, which are generally implemented in the country indices in which they occur. The second category consists of quarterly index reviews, aimed at promptly reflecting other significant market events. The third category consists of semi-annual index reviews that systematically re-assess the various dimensions of the equity universe.

Ongoing event-related changes to the country indices are the result of mergers, acquisitions, spin-offs, bankruptcies, reorganizations and other similar corporate events. They can also result from capital reorganizations in the form of rights issues, stock bonus issues, public placements and other similar corporate actions that take place on a continuing basis. MSCI will remove from the index as soon as practicable securities of companies that file for bankruptcy or other protection from their creditors, that are suspended and for which a return to normal business activity and trading is unlikely in the near future, or that fail stock exchange listing requirements with a delisting announcement. Securities may also be considered for early deletion in other significant cases, such as decreases in free float and foreign ownership limits, or when a constituent company acquires or merges with a non-constituent company or spins-off another company. In practice, when a constituent company is involved in a corporate event which results in a significant decrease in the company's free float-adjusted market capitalization or the company decreases its foreign inclusion factor to below 0.15, the securities of that constituent company are considered for early deletion from the indices simultaneously with the event unless, in either case, it is a standard index constituent with a minimum free float-adjusted market capitalization that is not at least two-thirds of one-half of the standard index interim size segment cut-off. Share conversions may also give rise to an early deletion. All changes resulting from corporate events are announced prior to their implementation, provided all necessary information on the event is available.

MSCI's quarterly index review process is designed to ensure that the country indices continue to be an accurate reflection of evolving equity markets. This goal is achieved by timely reflecting significant market driven changes that were not captured in each index at the time of their actual occurrence and that should not wait until the semi-annual index review due to their importance. These quarterly index reviews may result in additions and deletions of

component securities from a country index (or a security being removed from one country listing and represented by a different country listing) and changes in “foreign inclusion factors” and in number of shares. Additions and deletions to component securities may result from: the addition of large companies that did not meet the minimum size criterion for inclusion at the time of their initial public offering or secondary offering; the replacement of companies which are no longer suitable industry representatives; the deletion of securities whose overall free float has fallen to less than 15% and that do not meet specified criteria; the deletion of securities that have become very small or illiquid; and the addition or deletion of securities as a result of other market events. Significant changes in free float estimates and corresponding changes in the foreign inclusion factor for component securities may result from: block sales, block buys, secondary offerings and transactions made by way of immediate book-building that did not meet the requirements for implementation at the time of such event; corporate events that should have been implemented at the time of such event but could not be reflected immediately due to lack of publicly available details at the time of the event; exercise of IPO over-allotment options which result in an increase in free float; increases in foreign ownership limits; decreases in foreign ownership limits which did not require foreign investors to immediately sell shares in the market; re-estimates of free float figures resulting from the reclassification of shareholders from strategic to non-strategic, and vice versa; the end of lock-up periods or expiration of loyalty incentives for non-strategic shareholders; conversion of a non-index constituent share class or an unlisted line of shares which has an impact on index constituents; and acquisition by shares of non-listed companies or assets. However, no changes in foreign inclusion factors are implemented for any of the above events if the change in free float estimate is less than 1%, except in cases of correction. Small changes in the number of shares resulting from, for example, exercise of options or warrants, conversion of convertible bonds or other instruments, conversion of a non-

index constituent share class or an unlisted line of shares which has an impact on index constituents, periodic conversion of a share class into another share class, exercise of over-allotment options, exercise of share buybacks, or the cancellation of shares, are generally updated at the quarterly index review rather than at the time of the event. The results of the quarterly index reviews are announced at least two weeks in advance of their effective implementation dates as of the close of the last business day of February and August. MSCI has noted that consistency is a factor in maintaining each component country index.

MSCI's semi-annual index review is designed to systematically reassess the component securities of the index. During each semi-annual index review, the universe of component securities is updated and the global minimum size range for the index is recalculated, which is based on the full market capitalization and the cumulative free float-adjusted market capitalization coverage of each security that is eligible to be included in the index. The following index maintenance activities, among others, are undertaken during each semi-annual index review: the list of countries in which securities may be represented by foreign listings is reviewed; the component securities are updated by identifying new equity securities that were not part of the index at the time of the previous quarterly index review; the minimum size requirement for the index is updated and new companies are evaluated relative to the new minimum size requirement; existing component securities that do not meet the minimum liquidity requirements of the index may be removed (or, with respect to any such security that has other listings, a determination is made as to whether any such listing can be used to represent the security in the market investable universe); and changes in "foreign inclusion factors" are implemented (provided the change in free float is greater than 1%, except in cases of correction). During a semi-annual index review, component securities may be added or deleted from a country index for a range of reasons, including the reasons discussed with respect to component securities changes during quarterly index reviews as discussed above. Foreign listings may become eligible to represent securities only from the countries that met the foreign listing materiality requirement during the previous semi-annual index review (this requirement is applied only to countries that do not yet include foreign listed securities). Once a country meets the foreign listing materiality requirement at a given semi-annual index review, foreign listings will remain eligible for such country even if the foreign listing materiality requirements are not met in the future.

The results of the semi-annual index reviews are announced at least two weeks in advance of their effective implementation date as of the close of the last business day of May and November.

Index maintenance also includes monitoring and completing adjustments for share changes, stock splits, stock dividends, and stock price adjustments due to company restructurings or spin-offs.

These guidelines and the policies implementing the guidelines are the responsibility of, and, ultimately, subject to adjustment by, MSCI.

License Agreement

The MSCI indices are the exclusive property of MSCI. MSCI and the MSCI index names are service mark(s) of MSCI or its affiliates and have been licensed for use for certain purposes by TD. The Notes referred to herein are not sponsored, endorsed, or promoted by MSCI, and MSCI bears no liability with respect to any such Notes. No purchaser, seller or holder of Notes, or any other person or entity, should use or refer to any MSCI trade name, trademark or service mark to sponsor, endorse, market or promote the Notes without first contacting MSCI to determine whether MSCI's permission is required. Under no circumstances may any person or entity claim any affiliation with MSCI without the prior written permission of MSCI.

Historical Information

The graph below shows the daily historical Closing Levels of the Reference Asset from December 27, 2008 through December 27, 2018. The dotted line represents the Buffer Level of 1,476.615, which is equal to 87.50% of the Closing Level of the Reference Asset on December 27, 2018.

We obtained the information regarding the historical performance of the Reference Asset in the graph below from Bloomberg. Currently, Bloomberg reports the closing level of the Reference Asset to fewer decimal places than the Index Sponsor.

We have not independently verified the accuracy or completeness of the information obtained from Bloomberg. Bloomberg reports the level of the Reference Asset to fewer decimal places than MSCI, the Index Sponsor. The historical performance of the Reference Asset should not be taken as an indication of its future performance, and no assurance can be given as to the Final Level of the Reference Asset. We cannot give you assurance that the performance of the Reference Asset will result in any positive return on your initial investment.

PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.

Supplemental Discussion of U.S. Federal Income Tax Consequences

The U.S. federal income tax consequences of your investment in the Notes are uncertain. No statutory, regulatory, judicial or administrative authority directly discusses how the Notes should be treated for U.S. federal income tax purposes. Some of these tax consequences are summarized below, but we urge you to read the more detailed discussion under "Supplemental Discussion of U.S. Federal Income Tax Consequences" in the product prospectus supplement and discuss the tax consequences of your particular situation with your tax advisor. This discussion is based upon the Internal Revenue Code of 1986, as amended (the "Code"), final, temporary and proposed U.S. Treasury Department (the "Treasury") regulations, rulings and decisions, in each case, as available and in effect as of the date hereof, all of which are subject to change, possibly with retroactive effect. Tax consequences under state, local and non-U.S. laws are not addressed herein. No ruling from the U.S. Internal Revenue Service (the "IRS") has been sought as to the U.S. federal income tax consequences of your investment in the Notes, and the following discussion is not binding on the IRS.

U.S. Tax Treatment. Pursuant to the terms of the Notes, TD and you agree, in the absence of a statutory or regulatory change or an administrative determination or judicial ruling to the contrary, to characterize your Notes as prepaid derivative contracts with respect to the Reference Asset. If your Notes are so treated, you should generally recognize gain or loss upon the taxable disposition of your Notes in an amount equal to the difference between the amount you receive at such time and the amount you paid for your Notes. Such gain or loss should generally be long-term capital gain or loss if you have held your Notes for more than one year (otherwise such gain or loss should be short-term capital gain or loss if held for one year or less). The deductibility of capital losses is subject to limitations.

Based on certain factual representations received from us, our special U.S. tax counsel, Cadwalader, Wickersham & Taft LLP, is of the opinion that it would be reasonable to treat your Notes in the manner described above. However, because there is no authority that specifically addresses the tax treatment of the Notes, it is possible that your Notes could alternatively be treated for tax purposes as a single contingent payment debt instrument, or pursuant to some other characterization, such that the timing and character of your income from the Notes could differ materially and adversely from the treatment described above.

Except to the extent otherwise required by law, TD intends to treat your Notes for U.S. federal income tax purposes in accordance with the treatment described above and under "Supplemental Discussion of U.S. Federal Income Tax Consequences" of the product prospectus supplement, unless and until such time as the Treasury and the IRS determine that some other treatment is more appropriate.

Section 1297. We will not attempt to ascertain whether any of the Reference Asset Constituent Issuers would be treated as a "passive foreign investment company" ("PFIC") within the meaning of Section 1297 of the Code. If any such entity were so treated, certain adverse U.S. federal income tax consequences might apply upon the taxable disposition of a Note. You should refer to information filed with the SEC or the equivalent governmental authority by such entities and consult your tax advisor regarding the possible consequences to you if any such entity is or becomes a PFIC.

Notice 2008-2. In 2007, the IRS released a notice that may affect the taxation of holders of the Notes. According to Notice 2008-2, the IRS and the Treasury are actively considering whether a holder of an instrument such as the Notes should be required to accrue ordinary income on a current basis, and they are seeking taxpayer comments on the subject. It is not possible to determine what guidance they will ultimately issue, if any. It is possible, however, that under such guidance, holders of the Notes will ultimately be required to accrue income currently and this could be applied on a retroactive basis. The IRS and the Treasury are also considering other relevant issues, including whether additional gain or loss from such instruments should be treated as ordinary or capital, whether non-U.S. holders of such instruments should be subject to withholding tax on any deemed income accruals, and whether the special "constructive ownership rules" of Section 1260 of the Code should be applied to such instruments. Both U.S. and

non-U.S. holders are urged to consult their tax advisors concerning the significance, and the potential impact, of the above considerations on their investments in the Notes.

Medicare Tax on Net Investment Income. U.S. holders that are individuals, estates, and certain trusts are subject to an additional 3.8% tax on all or a portion of their "net investment income," or "undistributed net investment income" in the case of an estate or trust, which may include any income or gain with respect to the Notes, to the extent of their net investment income or undistributed net investment income (as the case may be) that when added to their other modified adjusted gross income, exceeds $200,000 for an unmarried individual, $250,000 for a married taxpayer filing a joint return (or a surviving spouse), $125,000 for a married individual filing a separate return or the dollar amount at which the highest tax bracket begins for an estate or trust. The 3.8% Medicare tax is determined in a different manner than the regular income tax. You should consult your tax advisor as to the consequences of the 3.8% Medicare tax to your investment in the Notes.

Specified Foreign Financial Assets. Certain U.S. holders that own "specified foreign financial assets" in excess of an applicable threshold may be subject to reporting obligations with respect to such assets with their tax returns, especially if such assets are held outside the custody of a U.S. financial institution. You are urged to consult your tax advisor as to the application of this legislation to your ownership of the Notes.

Non-U.S. Holders. This section applies only if you are a non-U.S. holder. For these purposes, you are a non-U.S. holder if you are the beneficial owner of the Notes and are, for U.S. federal income tax purposes:

- a non-resident alien individual;
- a non-U.S. corporation; or
- an estate or trust that, in either case, is not subject to U.S. federal income tax on a net income basis on income or gain from the Notes.

If you are a non-U.S. holder, subject to Section 871(m) of the Code and FATCA, as discussed below, you should generally not be subject to U.S. withholding tax with respect to payments on your Notes or to generally applicable information reporting and backup withholding requirements with respect to payments on your Notes if you comply with certain certification and identification requirements as to your non-U.S. status including providing us (and/or the applicable withholding agent) a properly executed and fully completed applicable IRS Form W-8. Subject to Section 871(m) of the Code, as discussed below, gain from the taxable disposition of the Notes generally should not be subject to U.S. tax unless (i) such gain is effectively connected with a trade or business conducted by you in the U.S., (ii) you are a non-resident alien individual and are present in the U.S. for 183 days or more during the taxable year of such taxable disposition and certain other conditions are satisfied or (iii) you have certain other present or former connections with the U.S.

Section 871(m). A 30% withholding tax (which may be reduced by an applicable income tax treaty) is imposed under Section 871(m) of the Code on certain "dividend equivalents" paid or deemed paid to a non-U.S. holder with respect to a "specified equity-linked instrument" that references one or more dividend-paying U.S. equity securities or indices containing U.S. equity securities. The withholding tax can apply even if the instrument does not provide for payments that reference dividends. Treasury regulations provide that the withholding tax applies to all dividend equivalents paid or deemed paid on specified equity-linked instruments that have a delta of one ("delta-one specified equity-linked instruments") issued after 2016 and to all dividend equivalents paid or deemed paid on all other specified equity-linked instruments issued after 2018. However, the IRS has issued guidance that states that the Treasury and the IRS intend to amend the effective dates of the Treasury regulations to provide that withholding on dividend equivalents paid or deemed paid will not apply to specified equity-linked instruments that are not delta-one specified equity-linked instruments and are issued before January 1, 2021.

Based on our determination that the Notes are not "delta-one" with respect to the Reference Asset or any U.S. Reference Asset Constituent, our counsel is of the opinion that the Notes should not be delta-one specified equity-linked instruments and thus should not be subject to withholding on dividend equivalents. Our determination is not binding on the IRS, and the IRS may disagree with this determination. Furthermore, the application of Section 871(m) of the Code will depend on our determinations made upon issuance of the Notes. If withholding is required, we will not make payments of any additional amounts.

Nevertheless, after issuance, it is possible that your Notes could be deemed to be reissued for tax purposes upon the occurrence of certain events affecting the Reference Asset, any Reference Asset Constituent or your Notes, and following such occurrence your Notes could be treated as delta-one specified equity-linked instruments that are subject to withholding on dividend equivalents. It is also possible that withholding tax or other tax under Section 871(m) of the Code could apply to the Notes under these rules if you enter, or have entered, into certain other transactions in respect of the Reference Asset, any Reference Asset Constituent or the Notes. If you enter, or have entered, into other transactions in respect of the Reference Asset, any Reference Asset Constituent or the Notes, you should consult your tax advisor regarding the application of Section 871(m) of the Code to your Notes in the context

of your other transactions.

Because of the uncertainty regarding the application of the 30% withholding tax on dividend equivalents to the Notes, you are urged to consult your tax advisor regarding the potential application of Section 871(m) of the Code and the 30% withholding tax to an investment in the Notes.

As discussed above, alternative characterizations of the Notes for U.S. federal income tax purposes are possible. Should an alternative characterization of the Notes cause payments with respect to the Notes to become subject to withholding tax, we (or the applicable withholding agent) will withhold tax at the applicable statutory rate and we will not make payments of any additional amounts.

Foreign Account Tax Compliance Act. The Foreign Account Tax Compliance Act ("FATCA") was enacted on March 18, 2010, and imposes a 30% U.S. withholding tax on "withholdable payments" (i.e., certain U.S.-source payments, including interest (and original issue discount), dividends, other fixed or determinable annual or periodical income, and the gross proceeds from a disposition of property of a type that can produce U.S.-source interest or dividends) and "passthru payments" (i.e., certain payments attributable to withholdable payments) made to certain foreign financial institutions (and certain of their affiliates) unless the payee foreign financial institution agrees (or is required), among other things, to disclose the identity of any U.S. individual with an account at the institution (or the relevant affiliate) and to annually report certain information about such account. FATCA also requires withholding agents making withholdable payments to certain foreign entities that do not disclose the name, address, and taxpayer identification number of any substantial U.S. owners (or do not certify that they do not have any substantial U.S. owners) to withhold tax at a rate of 30%. Under certain circumstances, a holder may be eligible for refunds or credits of such taxes.

Pursuant to final and temporary Treasury regulations and other IRS guidance, the withholding and reporting requirements under FATCA will generally apply to certain "withholdable payments" made on or after July 1, 2014, will not apply to gross proceeds on a sale or disposition, and will apply to certain foreign passthru payments only to the extent that such payments are made after the date that is two years after final regulations defining the term "foreign passthru payment" are published. If withholding is required, we (and/or the applicable withholding agent) will not be required to pay additional amounts with respect to the amounts so withheld. Foreign financial institutions and non-financial foreign entities located in jurisdictions that have an intergovernmental agreement with the U.S. governing FATCA may be subject to different rules.

Investors should consult their tax advisors about the application of FATCA, in particular if they may be classified as financial institutions (or if they hold their Notes through a non-U.S. entity) under the FATCA rules.

Proposed Legislation. In 2007, legislation was introduced in Congress that, if it had been enacted, would have required holders of Notes purchased after the bill was enacted to accrue interest income over the term of the Notes despite the fact that there will be no interest payments over the term of the Notes.

Furthermore, in 2013, the House Ways and Means Committee released in draft form certain proposed legislation relating to financial instruments. If it had been enacted, the effect of this legislation generally would have been to require instruments such as the Notes to be marked to market on an annual basis with all gains and losses to be treated as ordinary, subject to certain exceptions.

It is impossible to predict whether any similar or identical bills will be enacted in the future, or whether any such bill would affect the tax treatment of your Notes. You are urged to consult your tax advisor regarding the possible changes in law and their possible impact on the tax treatment of your Notes.

Both U.S. and non-U.S. holders are urged to consult their tax advisors regarding the U.S. federal income tax consequences of an investment in the Notes, as well as any tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction (including that of TD and those of the Reference Asset Constituent Issuers).

Supplemental Plan of Distribution (Conflicts of Interest)

We have appointed TDS, an affiliate of TD, as the agent for the sale of the Notes. Pursuant to the terms of a distribution agreement, TDS will purchase the Notes from TD at the public offering price less any underwriting discount set forth on the cover page of this pricing supplement for distribution to other registered broker-dealers, or has offered the Notes directly to investors. TD will reimburse TDS for certain expenses in connection with its role in the offer and sale of the Notes, and TD will pay TDS a fee in connection with its role in the offer and sale of the Notes.

Delivery of the Notes will be made against payment for the Notes on January 4, 2019, which is the fifth (5th) Business Day following the Pricing Date (this settlement cycle being referred to as "T+5"). Under Rule 15c6-1 of the Securities Exchange Act of 1934, as amended, trades in the secondary market generally are required to settle in two Business Days ("T+2"), unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Notes more than two Business Days prior to the Issue Date will be required to specify alternative settlement arrangements to prevent a failed settlement.

Conflicts of Interest. TDS is an affiliate of TD and, as such, has a ''conflict of interest'' in this offering within the meaning of Financial Industry Regulatory Authority, Inc. ("FINRA") Rule 5121. In addition, TD will receive the net proceeds from the initial public offering of the Notes, thus creating an additional conflict of interest within the meaning of FINRA Rule 5121. Consequently, the offering is being conducted in compliance with the provisions of FINRA Rule 5121. TDS is not permitted to sell Notes in this offering to an account over which it exercises discretionary authority without the prior specific written approval of the account holder.

We, TDS or any of our affiliates, may use this pricing supplement in the initial sale of the Notes. In addition, we, TDS or any of our affiliates may use this pricing supplement in a market-making transaction in a Note after its initial sale. ***If a purchaser buys the Notes from us, TDS or any of our affiliates, this pricing supplement is being used in a market-making transaction unless we, TDS or any of our affiliates informs such purchaser otherwise in the confirmation of sale.***

Prohibition of Sales to EEA Retail Investors

The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("EEA"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU, as amended ("MiFID II"); (ii) a customer within the meaning of Directive 2002/92/EC, as amended, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Directive 2003/71/EC, as amended. Consequently no key information document required by Regulation (EU) No 1286/2014, as amended (the "PRIIPs Regulation"), for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

Events of Default

The indenture provides holders of Notes with remedies if we fail to perform specific obligations, such as making payments on the Notes, or if we become bankrupt. Holders should review the applicable provisions and understand which of our actions would trigger an event of default and which actions would not.

Under the indenture, “event of default” means any of the following:

- we default in the payment of the principal of or interest on, as applicable, any note of that series and, in each case, the default continues for a period of 30 Business Days; or
- we become insolvent or bankrupt or subject to the provisions of the Winding-up and Restructuring Act (Canada), or any statute hereafter enacted in substitution therefor, as such act, or substituted act, may be amended from time to time, (ii) we go into liquidation, either voluntary or under an order of a court of competent jurisdiction or (iii) we pass a resolution for our winding-up, liquidation or dissolution (with certain exceptions).

The indenture permits the issuance of notes in one or more series, and, in many cases, whether an event of default has occurred is determined on a series by series basis. For purposes of this section, with respect to notes issued on or after September 23, 2018, “series” refers to notes having identical terms, except as to issue date, principal amount and, if applicable, the date from which interest begins to accrue.

The indenture provides that:

- if an event of default due to the default in payment of principal of or, if applicable, any premium or interest on, any series of senior notes issued under the indenture, or due to any event of default referred to in the last bullet above applicable to the senior notes of that series but not applicable to all outstanding senior notes issued under the indenture, occurs and is continuing, either the trustee or the holders of not less than 25% in aggregate principal amount of the outstanding senior notes of each affected series, voting as a single class, by notice in writing to TD, may declare the principal of (or such other amount as may be specified) all senior notes of each affected series and, if applicable, interest accrued thereon to be due and payable immediately; and
- if an event of default due to specified events of bankruptcy, insolvency, winding up or liquidation of TD, occurs and is continuing, either the trustee or the holders of not less than 25% in aggregate principal amount of all outstanding senior notes issued under the senior debt indenture, treated as one class, by notice in writing to TD may declare the principal of (or such other amount as may be specified) all those senior notes and, if applicable, interest accrued thereon to be due and payable immediately.

Annulment of Acceleration and Waiver of Defaults.

In some circumstances, if any and all events of default under the indenture, other than the non-payment of the principal of the securities that has become due as a result of an acceleration, have been cured, waived or otherwise remedied, then the holders of a majority in aggregate principal amount of all series of outstanding senior notes affected, voting as one class, may annul past declarations of acceleration of or waive past defaults of the senior notes.

Differences in Events of Default

Notes issued by us prior to September 23, 2018, such as the Series A notes and the Series B notes, contain events of default that are different from those set forth above. In particular, the events of default applicable to the Series A notes and the Series B notes do not provide for a 30-business-day cure period with respect to any failure by us to pay the principal of or, if applicable, interest on those senior notes. Accordingly, if we fail to pay the principal of any series of Series A notes or Series B notes when due, the holders of such notes would be entitled to declare their securities due and payable following a 7-day cure period, whereas holders of Series C notes, Series D notes or Series E notes would not be entitled to accelerate the notes until 30 Business Days after our failure to pay the principal of the notes. In addition, if we fail to pay, if applicable, interest on any series of Series A notes or Series B notes when due, the

holders of such notes would be entitled to declare their securities due and payable following a 30-calendar day cure period, whereas holders of Series C notes, Series D notes or Series E notes would not be entitled to accelerate the notes until 30 Business Days after our failure to pay, if applicable, the interest on the notes.

Validity of the Notes

In the opinion of Cadwalader, Wickersham & Taft LLP, as special products counsel to TD, when the Notes offered by this pricing supplement have been executed and issued by TD and authenticated by the trustee pursuant to the indenture and delivered, paid for and sold as contemplated herein, the Notes will be valid and binding obligations of TD, enforceable against TD in accordance with their terms, subject to applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium, receivership or other laws relating to or affecting creditors' rights generally, and to general principles of equity (regardless of whether enforcement is sought in a proceeding at law or in equity). This opinion is given as of the date hereof and is limited to the laws of the State of New York. Insofar as this opinion involves matters governed by Canadian law, Cadwalader, Wickersham & Taft LLP has assumed, without independent inquiry or investigation, the validity of the matters opined on by McCarthy Tétrault LLP, Canadian legal counsel for TD, in its opinion expressed below. In addition, this opinion is subject to customary assumptions about the trustee's authorization, execution and delivery of the indenture and, with respect to the Notes, authentication of the Notes and the genuineness of signatures and certain factual matters, all as stated in the opinion of Cadwalader, Wickersham & Taft LLP dated May 31, 2016 which has been filed as Exhibit 5.3 to the registration statement on form F-3 filed by the Bank on May 31, 2016.

In the opinion of McCarthy Tétrault LLP, the issue and sale of the Notes has been duly authorized by all necessary corporate action on the part of TD, and when this pricing supplement has been attached to, and duly notated on, the master note that represents the Notes, the Notes will have been validly executed and issued and, to the extent validity of the Notes is a matter governed by the laws of the Province of Ontario, or the laws of Canada applicable therein, will be valid obligations of TD, subject to the following limitations: (i) the enforceability of the indenture is subject to bankruptcy, insolvency, reorganization, arrangement, winding up, moratorium and other similar laws of general application limiting the enforcement of creditors' rights generally; (ii) the enforceability of the indenture is subject to general equitable principles, including the fact that the availability of equitable remedies, such as injunctive relief and specific performance, is in the discretion of a court; (iii) courts in Canada are precluded from giving a judgment in any currency other than the lawful money of Canada; and (iv) the enforceability of the indenture will be subject to the limitations contained in the Limitations Act, 2002 (Ontario), and such counsel expresses no opinion as to whether a court may find any provision of the indenture to be unenforceable as an attempt to vary or exclude a limitation period under that Act. This opinion is given as of the date hereof and is limited to the laws of the Provinces of Ontario and the federal laws of Canada applicable thereto. In addition, this opinion is subject to: (i) the assumption that the senior indenture has been duly authorized, executed and delivered by, and constitutes a valid and legally binding obligation of, the trustee, enforceable against the trustee in accordance with its terms; and (ii) customary assumptions about the genuineness of signatures and certain factual matters all as stated in the letter of such counsel dated May 31, 2016, which has been filed as Exhibit 5.2 to the registration statement on form F-3 filed by TD on May 31, 2016.