

WITS-API USER GUIDE

VERSION 1.4

Version History

Date	Version	Comments
Apr-05-2016	1.0	Initial Version
Apr-19-2016	1.1	Update to the Data Structure Definition (DSD) to eliminate measure dimension (the last parameter) parameter on the SDMX tariff data request call.
Apr-22-2016	1.2	Appropriate HTTP Response Status Codes are returned for error message; Support for Details Parameter on SDMX query added.
May-05-2016	1.3	Trade Stats Dataset added
Feb-21-2017	1.4	JSON support added for SDMX data request and URL based data request

Table of Contents

Overview	3
UNCTAD TRAINS Data12	3
Limitation on Data Request	3
Basic Call structure.....	4
URL based structure Queries	4
SDMX Queries	4
Response Format	4
URL based structure request	5
Meta Data Request	5
<i>Reporter and Partner</i>	5
Nomenclature	7
Product.....	8
Data Availability	9
Error Response:.....	11
Tariff Data Request	11
Error Response:.....	13
SDMX Query Request.....	15
Meta Data Request	15
<i>Data Flow</i>	15
<i>Code List</i>	16
Data Structure Definition (DSD).....	17
Error Response:.....	18
Tariff Data Request	18
Error Response:.....	22
TRADE Stats Data	23
Limitation on Data Request	24
Basic Call structure.....	24
URL based structure Queries	24
SDMX Queries	24
Response Format	25
URL based structure request	26
Meta Data Request	26

<i>Reporter and Partner</i>	26
Nomenclature	27
Product.....	28
Indicator	30
Data Availability	31
Error Response:.....	34
Trade Stats Data Request.....	34
Error Response:.....	37
SDMX Query Request.....	38
Meta Data Request	39
<i>Data Flow</i>	39
<i>Code List</i>	40
Data Structure Definition (DSD).....	41
Error Response:.....	42
Trade Stats Data Request.....	42
Error Response:.....	48

Overview

Use WITS REST API to programmatically access databases in WITS. At present the UNCTAD TRAINS dataset and Trade Stats are available through our API module. We are planning to add more dataset in the near future. If you are interested in a specific dataset that are currently available through WITS, please let us know by email at wits@worldbank.org. The WITS API module supports two request format: [SDMX](#) and URL based structure. The data response structure for both the requests are identical and available currently in XML format.

UNCTAD TRAINS Data

Preferential and most-favored-nation (MFN) tariff rates are available in this dataset. Data are harmonized across the countries at 6-digit level of the Harmonized System. Tariff data (traded and non-traded tariff lines) can be downloaded by specifying values for the below dimensions:

Reporter: The Reporter ISO Country Code. Refer [metadata section](#) for list of Reporter Code and name

Partner: Country or group of countries to which the (preferential) tariff rate applies. Refer [metadata section](#) for list of single partner code and alpha-numeric code that represents a group of countries

Product Code: 6-digit HS code. Refer [metadata section](#) for list of Reporter Codes. Refer metadata section for list of product Codes and description

Year: Year in which the tariff was valid. Refer [metadata section](#) for available years

Data Type: Reported Tariff rate only or Reported tariff rate and all specific duty expression estimated using UNCTAD method.

Limitation on Data Request

In order to avoid server overload request for entire database is not possible in one query. The following are the options to request data

- All products tariff schedules can be requested for a single reporter, partner and year
- Tariff schedule for a single reporter, partner, and product can be requested for a range of years
- Tariff schedule for one or more reporters, one or more partners, one or more products can be requested for a single year
- Either *reported* or *AVE estimated* data type can be requested in a single request

Basic Call structure

The base URL to access WITS API is <http://wits.worldbank.org/API/V1>. The following section provides overview on call structure for URL based structure query request and SDMX query request. Note, Data Availability can be queried only in URL based structure request and not in SDMX Queries.

URL based structure Queries

To access [Meta data](#) and [data availability](#), the base URL is <http://wits.worldbank.org/API/V1/WITS>.

The [data availability](#) API's returns the available country periods in UNCTAD TRAINS tariff datasets. Also this API returns the available partner codes and whether estimated duty rate for specific duty expression are available for a specific country-period. Using the information available on data availability response, [tariff data request](#) can be framed.

The base URL for tariff data request is <http://wits.worldbank.org/API/V1/SDMX/V21/>. To obtain country and partner names, use [Reporter-Partner](#) API's. To obtain the nomenclature name and product description use the [nomenclature](#) API's and [Product](#) API's respectively. To obtain the tariff data in JSON format include `"?format=JSON"` on the data request query.

The access data for more than one value for a parameter, the use the delimiter “;” to separate the values.

SDMX Queries

The base URL to access [data flow](#), [codes list](#) and [Data Structure Definition \(DSD\)](#) is <http://wits.worldbank.org/API/V1/SDMX/V21/rest/>. The base URL to access trade and non-traded tariff data is <http://wits.worldbank.org/API/V1/SDMX/V21/rest/data>. To access tariff data for more than one value for a parameter, the use the delimiter “+” to separate the parameter values.

Response Format

Let's consider a sample request format for Reporter=840 (USA); Partner=000 (World); Product=020110; year=2000 and reported tariff only.

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/840/partner/000/product/020110/year/2000/datatype/reported>

Part of the response for the above request looks like below

```
<message:DataSetID>DF_WITS_TRAINS_BulkDownload_WB_WITS_2016-03-23T150641</message:DataSetID>
<message:Extracted>2016-03-23T15:06:41</message:Extracted>
</message:Header>
<message:DataSet ss:dataScope="DataStructure" xsi:type="ns1:DataSetType" ss:structureRef="WB_WITS_TARIFF_TRAINS_1_0" DATASOURCE="TRN"
  xmlns:ss="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/data/structurespecific">
  <Series FREQ="A" DATATYPE="Reported" MEASURE_DIM="SimpleAverage" REPORTER="840" PRODUCTCODE="020110" PARTNER="000">
  <Obs TIME_PERIOD="2000" OBS_VALUE="26.3999996185303" TARIFFTYPE="MFN" TOTALNOOFLINES="3" NBR_PREF_LINES="0" NBR_MFN_LINES="1" NBR_NA_LINES="2"
  SUM_OF_RATES="26.3999996185303" MIN_RATE="26.3999996185303" MAX_RATE="26.3999996185303" NOMENCODE="H1" />
  </Series>
</message:DataSet>
</message:StructureSpecificData>
```

The following measures are available on the response along with the requested dimension values

SimpleAverage: Simple average of ad valorem tariff rates from all national tariff lines within the corresponding HS 6-digit code. OBS_Value denotes the simple average on the response

TARIFFTYPE: Identifies whether the tariff rate is Preferential (PREF) or most-favored-nation (MFN).

TOTALNOOFLINES: Total number of national tariff lines within the corresponding HS 6-digit code.

NBR_PREF_LINES: Number of national tariff lines within the corresponding HS 6-digit code for which preferential rates are applicable.

NBR_MFN_LINES: Number of national tariff lines within the corresponding HS 6-digit code for which preferential rates are NOT applicable (so that MFN rates are used in the calculation of the simple average)

NBR_NA_LINES: Number of national tariff lines within the corresponding HS 6-digit code for which preferential rates are NOT in ad valorem form (so that the line is not included in the calculation of the simple average)

SUM_OF_RATES: Sum of ad valorem tariff rates from all national tariff lines within the corresponding HS 6-digit code

MIN_RATE: Lowest ad valorem tariff rates among all national tariff lines within the corresponding HS 6-digit code.

MAX_RATE: Highest ad valorem tariff rates among all national tariff lines within the corresponding HS 6-digit code

NOMENCODE: Revision of HS used (H0 = HS 1988/92, H1= HS 1996, H2 = HS 2002, H3 = HS 2007, H4 = HS 2012)

EXCLUDEDFROM: Country code of the country excluded from the application of the particular preferential rate for the corresponding product.

URL based structure request

There are two types of request: One request type is to retrieve the Meta data and other request type is to retrieve the tariff data.

Meta Data Request

This section helps to get data availability, country list, available partners for a given country period.

Reporter and Partner:

This API helps to obtain reporter and partner name, alpha numeric code, ISO3 code and other Meta data about the countries that are available in the UNCTAD TRAINS dataset

URL:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/country/ALL|:CountryCode|:CountryCodeList>

Method:

GET

URL Parameter:

ALL: To retrieve all countries/partners Meta data.

:CountryCode= Three letter alpha numeric country code

:CountryCodeList= List of three letter alpha numeric country codes separated by delimiter(,)

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information about the requested country/partner

- Country Code
- ISO3 Code
- Name
- Is the country code available as reporter?
- Is the country code available as partner?
- Is the country code group
- Group Type
- Notes

Sample Request:

To request all countries:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/country/ALL>

To request a specific country:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/country/004>

To request list of countries:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/country/004;840;G24>

Sample Response Format:

```
<wits:datasource xmlns:wits="http://wits.worldbank.org" datasourcecode="TRN" datasourcename="WITS - UNTCTAD TRAINS" language="en" page="1" pages="1" per_page="50" total="1">
  <wits:countries>
    <wits:country countrycode="840" isreporter="1" ispartner="1" isgroup="No" grouptype="N/A">
      <wits:iso3Code>USA</wits:iso3Code>
      <wits:name>United States</wits:name>
      <wits:notes/>
    </wits:country>
  </wits:countries>
</wits:datasource>
```

Nomenclature

This API helps to obtain information on nomenclatures that are available in the UNCTAD TRAINS dataset

URL:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/nomenclature/ALL|:nomenCode|:nomenCodeList>

Method:

GET

URL Parameter:

ALL: To retrieve all of nomenclature Meta data available in the dataset

: nomenCode = Two letter alpha numeric nomenclature code

: nomenCodeList = List of two letter alpha numeric nomenclature codes separated by delimiter(,)

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information about the requested nomenclature

- Nomenclature code
- Nomenclature description
- Nomenclature Name

Sample Request:

To request all classifications:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/nomenclature/>

To request a specific classification:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/nomenclature/H0>

To request list of classifications:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/nomenclature/H0;H4>

Sample Response Format:

```
▼<wits:datasource xmlns:wits="http://wits.worldbank.org" datasourcecode="TRN"
datasourcename="WITS - UNCTAD TRAINS" language="en" page="1" pages="1" per_page="50" total="2">
  ▼<wits:nomenclatures>
    <wits:nomenclature nomenclaturecode="H0" description="Harmonized System 1988/92">HS
    1988/92</wits:nomenclature>
    <wits:nomenclature nomenclaturecode="H4" description="Harmonized System 2012">HS
    2012</wits:nomenclature>
  </wits:nomenclatures>
</wits:datasource>
```

Product

This API helps to obtain information on the products that are available in the UNCTAD TRAINS dataset

URL:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/product/ALL|:productCode|>

:productCodeList

Method:

GET

URL Parameter:

ALL: To access all of the products metadata available in this dataset

: productCode = Six letter numeric product code

: productCodeList = List of six letter numeric product codes separated by delimiter(,)

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information about the product codes.

- Product code
- Product description
- Is the product code group?
- Product Group Type
- Notes

Sample Request:

To request all products:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/product/all>

To request a specific product:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/product/010110>

To request list of classification:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/product/010110;010120>

Sample Response Format:

```
▼<wits:datasource xmlns:wits="http://wits.worldbank.org" datasourcecode="TRN" datasourcename="WITS - UNCTAD TRAINS" language="en" page="1" pages="1" per_page="50" total="2">
  ▼<wits:products>
    ▼<wits:product productcode="010110" isgroup="No" nomenclaturecode="HS" grouptype="N/A">
      <wits:productdescription>(2002-2011) - Pure-bred breeding animals</wits:productdescription>
      <wits:notes/>
    </wits:product>
    ▼<wits:product productcode="010120" isgroup="No" nomenclaturecode="HS" grouptype="N/A">
      <wits:productdescription>(-2001) - Asses, mules and hinnies</wits:productdescription>
      <wits:notes/>
    </wits:product>
  </wits:products>
</wits:datasource>
```

Data Availability

This API helps to obtain data availability in the UNCTAD TRAINS dataset. This API provide the data availability of entire TRAINS dataset or data availability for one or more reporters or in given year(s) tariff available countries information.

URL:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/dataavailability>

<http://wits.worldbank.org/API/V1/wits/datasource/trn/dataavailability/country/ALL|:countryCode|:countryCodeList/year/ALL:year|:yearList>

Method:

GET

URL Parameter:

ALL: To access all available entries in this dataset.

:CountryCode= Three letter alpha numeric country code

:CountryCodeList= List of three letter alpha numeric country codes separated by delimiter(;

: year = {integer}

:yearList= List of years separated by delimiter(;

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information on data availability

- Country Information (Country name, code, iso3, Is group, group type)
- Year
- Reported Nomenclature
- Number of Preferential Agreement available
- Partner list
- Is the estimated tariff rate available for specific duty expression
- notes
- Last updated date

Sample Request:

To request entire (all country periods) data availability:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/dataavailability/>

To request a specific country and all years:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/dataavailability/country/840/year/all>

To request all countries and a specific year:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/dataavailability/country/all/year/2000>

To request list of countries and all years:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/dataavailability/country/840;918/year/a>

||

To request all countries and list of years:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/dataavailability/country/all/year/2000;2>

001

To request a specific country and a year:

<http://wits.worldbank.org/API/V1/wits/datasource/trn/dataavailability/country/840/year/2000>

Sample Response Format:

```
<wits:datasource xmlns:wits="http://wits.worldbank.org" datasourcecode="TRN" datasourcename="WITS - UNTCTAD TRAINS"
language="en" page="1" pages="1" per_page="50" total="1">
  <wits:dataavailability>
    <wits:reporter countrycode="156" iso3Code="CHN" isgroup="No" grouptype="N/A">
      <wits:name>China</wits:name>
      <wits:year>2000</wits:year>
      <wits:reporternomenclature reporternomenclaturecode="H1">Harmonized System 1996</wits:reporternomenclature>
      <wits:numberofpreferentialagreement>0</wits:numberofpreferentialagreement>
      <wits:partnerlist>000;</wits:partnerlist>
      <wits:isspecificdutyexpressionestimatedavailable>No</wits:isspecificdutyexpressionestimatedavailable>
      <wits:notes/>
      <wits:lastupdateddate>2014/08/04</wits:lastupdateddate>
    </wits:reporter>
  </wits:dataavailability>
</wits:datasource>
```

Error Response:

The following error response is obtained for invalid parameter values

WITS Message Code: 160

Content: Data not found

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  ▼<wits:message id="160" key="Data not found.">
    The provided parameter value is not valid or data not found.
  </wits:message>
</wits:error>
```

Tariff Data Request

This API helps to access the traded and non-traded tariff lines tariff data. This API offer variety of options to retrieve the tariff schedule. User can request for a country-period-partner, entire tariff schedule or country-partner-product tariff schedule over period of time.

URL:

[http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/{ALL|Reporter Code list }/partner/{ALL|Partner Code list }/product/{ALL|Product Code list }/year/{ALL|Year List }/datatype/{reported|aveestimated}\[/format=JSON\]](http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/{ALL|Reporter Code list }/partner/{ALL|Partner Code list }/product/{ALL|Product Code list }/year/{ALL|Year List }/datatype/{reported|aveestimated}[/format=JSON])

Method:

GET

URL Parameter:

Data Source: The value for UNCTAD TRAINS dataset is “TRN”

Data Type: The datatype parameter can have “reported” or “aveestimated” as the value.

Reporter: The reporter parameter can have the value of “All” or list of country codes from Reporter and Partner metadata request.

Product: The product parameter can the value of “All” or list of product codes, which can be obtained from Product Metadata request.

Partner: The partner parameter can have the value of “All” or list of partner codes obtained from data availability metadata request call.

Year: The year parameter can have the value of “All” or list of values obtained from data availability metadata request call.

Format: The format parameter can have the value of “JSON”. When a valid format parameter is specified, the data is returned in JSON format.

Response Format:

XML for JSON (when format=JSON present on the URL parameter)

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information on tariff data. For more information on this measure, refer [here](#).

- Simple Average
- Tariff type
- Total number of lines
- Number of preferential lines
- Number of MFN lines
- Number of Specific duty rate tariff lines
- Sum of rates
- Min Rate
- Max Rate
- Reported Nomenclature

Sample Request:

To request one reporter-one partner-one product- one year-reported tariff rate:

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/840/partner/000/product/020110/year/2000/datatype/reported>

To request one reporter-one partner-all product- one year-reported tariff rate:

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/840/partner/000/product/all/year/2000/datatype/reported>

To request one reporter-one partner-one product-all available years-reported tariff rate:

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/840/partner/000/product/020110/year/all/datatype/reported>

To request all reporters-one partner-one product-all available year-reported tariff rate:

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/all/partner/000/product/020110/year/2000/datatype/reported>

To request multiple reporters-all partners-one product-one year-reported tariff rate:

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/840;918/partner/all/product/020110/year/2000/datatype/reported>

To request multiple reporters-all partners-one product-all available years--reported tariff rate and estimated tariff rates:

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/840;918/partner/000/product/020110/year/all/datatype/aveestimated>

To request multiple reporters-all partners-one product-all available years--reported tariff rate and estimated tariff rates in JSON format:

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/TRN/reporter/840;918/partner/000/product/020110/year/all/datatype/aveestimated?format=JSON>

Sample Response Format:

```
<message:DataSetAction></message:DataSetAction>
<message:DataSetID>DF_WITS_TRAINS_BulkDownload_WB_WITS_2016-03-23T15:06:41</message:DataSetID>
<message:Extracted>2016-03-23T15:06:41</message:Extracted>
</message:Header>
<message:DataSet ss:dataScope="DataStructure" xsi:type="ns1:DataSetType" ss:structureRef="WB_WITS_TARIFF_TRAINS_1_0" DATASOURCE="TRN"
  xmlns:ss="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/data/structurespecific">
  <Series FREQ="A" DATATYPE="Reported" MEASURE_DIM="SimpleAverage" REPORTER="840" PRODUCTCODE="020110" PARTNER="000">
    <Obs TIME_PERIOD="2000" OBS_VALUE="26.3999996185303" TARIFFTYPE="MFN" TOTALNOOFLINES="3" NBR_PREF_LINES="0" NBR_MFN_LINES="1" NBR_NA_LINES="2"
      SUM_OF_RATES="26.3999996185303" MIN_RATE="26.3999996185303" MAX_RATE="26.3999996185303" NOMENCODE="H1" />
  </Series>
</message:DataSet>
</message:StructureSpecificData>
```

```
{
  "header": {
    "id": "DF_WITS_Tariff_TRAINS",
    "prepared": "2017-02-21T10:42:48",
    "test": false,
    "sender": {
      "id": "WBG_WITS",
      "name": "World Bank Group - WITS"
    }
  },
  "dataSets": [
    {
      "action": "Information",
      "attributes": [
        0
      ],
      "series": {
      }
    }
  ],
  "structure": {
    "name": "WITS - UNCTAD TRAINS Tariff Data",
    "description": "Data flow to access WITS - UNCTAD TRAINS Preferential and most-favored-nation (MFN) tariff rates",
    "dimensions": {
      "dataset": [],
      "series": [
      ],
      "observation": [
      ]
    },
    "attributes": {
    },
    "annotations": []
  }
}
```

Error Response:

The following error response are returned for invalid parameter values or when the data is too large to return

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid reporter code

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  ▼<wits:message id="150" key="Invalid Reporter Code.">
    The provided reporter parameter value is not valid.
  </wits:message>
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid partner code

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Partner Code.">The provided partner parameter value is not valid.</wits:message>
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid product code

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Product Code.">The provided product parameter value is not valid.</wits:message>
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid data type

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  ▼<wits:message id="150" key="Invalid Data Type Code.">
    The provided data type parameter value is not valid.
  </wits:message>
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid year

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Year.">The provided year parameter value is not valid.</wits:message>
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: The request yield large data to return.

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="130" key="Response too large due to client request.">The provided parameter values return large data.</wits:message>
</wits:error>
```

SDMX Query Request

There are two types of request: One request type is to retrieve the Meta data and other request type is to retrieve tariff data. The following two SDMX response format are supported.

SDMX-ML 2.1 generic schema: The response is provided by default

SDMX-ML 2.1 structure specific schema: The structure specific schema is more suited for processing of large data amounts. To get the response in this format, modify the HTTP request header field "Accept: application/vnd.sdmx.structurespecificdata+xml" on the SDMX query request. More information about SDMX-ML formats is available in document [SDMX guidelines for the use of web services](#)

JSON Format: To get the data in JSON format, modify the HTTP request header field "Accept: application/vnd.sdmx.data+json;version=1.0.0-wd" on the SDMX data query request

Meta Data Request

This section explains the call to get dataflow, code list and Data Structure Definition (DSD).

Data Flow

This API retrieves the unique dataset code for UNCTAD TRAINS dataset.

URL:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/dataflow/wbg_wits/

Method:

GET

URL Parameter:

None

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the data flow code to access the UNCTAD TRAINS traded and non-traded tariff lines tariff schedule

Sample Request:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/dataflow/wbg_wits/

Sample Response Format:

```
▼<Structure xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message">
  ▼<Header>
    <ID>World Bank Group - WITS</ID>
    <Test>true</Test>
    <Prepared>2016-03-28T10:30:47-04:00</Prepared>
    ▼<Sender id="WBG_WITS">
      <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">World Integrated Trade Solution</Name>
      ▼<Contact>
        <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">WITS Admin</Name>
        <Department xml:lang="en">Statistics</Department>
        <Role xml:lang="en">WITS Admin</Role>
        <Email>wits@worldbank.org</Email>
        <URI>http://WITS.Worldbank.org</URI>
      </Contact>
    </Sender>
    ▼<Receiver id="Unknown">
      <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
      ▼<Contact>
        <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
        <Department xml:lang="en">Unknown</Department>
        <Role xml:lang="en">Unknown</Role>
      </Contact>
    </Receiver>
    <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
    <Source xml:lang="en">WITS</Source>
  </Header>
  ▼<Structures>
    ▼<Dataflows xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/structure">
      ▼<Dataflow id="DF_WITS_Tariff_TRAINS" urn="urn:sdmx:org.sdmx.infomodel.datastructure.Dataflow=WBG_WITS:DF_WITS_Tariff_TRAINS(1.1)"
        agencyID="WBG_WITS" version="1.1" isFinal="false">
        <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">WITS - UNCTAD TRAINS Tariff Data</Name>
        ▼<Description xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">
          Data flow to access WITS - UNCTAD TRAINS Preferential and most-favored-nation (MFN) tariff rates
        </Description>
        ▼<Structure>
          <Ref xmlns="" id="TARIFF_TRAINS" version="1.1" agencyID="WBG_WITS" package="datastructure" class="DataStructure"/>
        </Structure>
      </Dataflow>
    </Dataflows>
  </Structures>
</Structure>
```

Code List

This API retrieves the code list for the entire datasets in WITS API.

URL:

<http://wits.worldbank.org/API/V1/SDMX/V21/rest/codelist/all>

Method:

GET

URL Parameter:

None

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the code list available for various dimension in UNCTAD TRAINS traded and non-traded tariff lines tariff schedule

Sample Request:

<http://wits.worldbank.org/API/V1/SDMX/V21/rest/codelist/all/>

Sample Response Format:

```
▼<Structure xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message">
  ▼<Header>
    <ID>World Bank Group - WITS</ID>
    <Test>true</Test>
    <Prepared>2016-03-28T10:30:47-04:00</Prepared>
    ▼<Sender id="WBG_WITS">
      <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">World Integrated Trade
        Solution</Name>
      ▶<Contact>...</Contact>
    </Sender>
    ▼<Receiver id="Unknown">
      <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
      ▶<Contact>...</Contact>
    </Receiver>
    <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
    <Source xml:lang="en">WITS</Source>
  </Header>
  ▼<Structures>
    ▶<Codelists xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/structure">...</Codelists>
  </Structures>
</Structure>
```

Data Structure Definition (DSD)

This API retrieves the Data Structure Definition (DSD) for the UNCTAD TRAINS dataset

URL:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/datastructure/WBG_WITS/TARIFF_TRAINS/

Method:

GET

URL Parameter:

None

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the Data Structure Definition (DSD) for UNCTAD TRAINS traded and non-traded tariff lines tariff schedule

Sample Request:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/datastructure/WBG_WITS/TARIFF_TRAINS/

Sample Response Format:

```
<Structure xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message">
  <Header>
    <ID>World Bank Group - WITS</ID>
    <Test>true</Test>
    <Prepared>2016-03-28T10:30:47-04:00</Prepared>
  </Header>
  <Sender id="WBG_WITS">
    <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">World Integrated Trade Solution</Name>
    <Contact>
      <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">WITS Admin</Name>
      <Department xmlns:lang="en">Statistics</Department>
      <Role xml:lang="en">WITS Admin</Role>
      <Email>wits@worldbank.org</Email>
      <URI>http://WITS.Worldbank.org</URI>
    </Contact>
  </Sender>
  <Receiver id="Unknown">
    <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
    <Contact>...</Contact>
  </Receiver>
  <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
  <Source xml:lang="en">WITS</Source>
</Header>
<DataStructures>
  <DataStructure id="TARIFF_TRAINS" urn="urn:sdmx:org.sdmx.infomodel.datastructure.WBG_WITS:TARIFF_TRAINS(1.0)" agencyID="WBG_WITS" version="1.0" isFinal="true">
    <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Tariff data</Name>
    <DataStructureComponents>...</DataStructureComponents>
  </DataStructure>
</DataStructures>
</Structure>
```

Error Response:

The following error response is returned for invalid parameter value.

HTTP Response Status Code: 404

Content: Invalid structure code

```
<string xmlns="http://schemas.microsoft.com/2003/10/Serialization/">No structures found for the specific query</string>
```

Tariff Data Request

This API helps to access the traded and non-traded tariff lines tariff data. This API offer variety of options to retrieve the tariff schedule. User can request for a country-period-partner entire tariff schedule or country-partner-product tariff schedule over period of time.

URL:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/DF_WITS_Tariff_TRAINS/<Freq>.<Reporter>.<Partner>.<productCode>.<datatype>/?startperiod=<year>&endperiod=<year>&detail=Full | DataOnly | SeriesKeysOnly | NoData

Method:

GET

URL Parameter:

Freq: The possible value for frequency is "A". If no value is specified, it is considered as all frequencies.

DataType: The datatype parameter can have "reported" or "aveestimated" as the value.

Reporter: The reporter parameter can have a single country code or list of country codes from the code list. If no value is specified, it is considered as all available reporters

Product: The product parameters can a one product code or list of product codes, which can be obtained from code list Metadata request. If no value is specified, it is considered as all available product codes

Partner: The partner parameter can a one partner code or list of partner codes obtained from the code list Meta data request.

StartPeriod: This is a year parameter and can have the value from 1988 onwards. If ignored, tariff data for available years will be returned.

EndPeriod: This is a year parameter and can have the value from 1988 onwards. If ignored, the tariff data available from the start period to the latest available years will be returned.

Detail: This is an optional parameter and specifies the desired amount of information to be returned. It can take one of the below values

- **Full:** all data and documentation, including annotations (default)
- **DataOnly:** attributes – and therefore groups – will be excluded
- **SeriesKeysOnly:** only the series elements and the dimensions that make up the series keys
- **NoData:** returns the groups and series, including attributes and annotations, without observations

Response Format:

XML- SDMX-ML 2.1 generic schema, XML- SDMX-ML 2.1 structure specific schema or JSON

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information on tariff data. For more information on this measure, refer [here](#).

- Simple Average
- Tariff type
- Total number of lines
- Number of preferential lines
- Number of MFN lines
- Number of Specific duty rate tariff lines
- Sum of rates
- Min Rate
- Max Rate
- Reported Nomenclature

Sample Request:

To request one reporter-one partner-one product- one year-reported tariff rate:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/DF_WITS_Tariff_TRAINS/.840.000.020110.reported/?startperiod=2000&endperiod=2000

To request one reporter-one partner-all product- one year-reported tariff rate:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/DF_WITS_Tariff_TRAINS/.840.000..reported/?startperiod=2000&endperiod=2000

To request one reporter-one partner-one product-all available years-reported tariff rate:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/DF_WITS_Tariff_TRAINS/.840.000.020110.reported/

To request all reporters-one partner-one product-one year-reported tariff rate:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/DF_WITS_Tariff_TRAINS/..000.020110.reported/?startperiod=2000&endperiod=2000

To request multiple reporters-all partners-one product-one year-reported tariff rate:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/DF_WITS_Tariff_TRAINS/.840+918..020110.reported/?startperiod=2000&endperiod=2000

To request multiple reporters-all partners-one product-all available years--reported tariff rate and estimated tariff rates:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/DF_WITS_Tariff_TRAINS/.840+918..020110.ave.estimated/?startperiod=2000&endperiod=2000

To request series elements and the dimension the makeup the series key for one reporter-one partner-one product- one year-reported tariff rate

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/DF_WITS_Tariff_TRAINS/.840.000.020110.reported/?startperiod=2000&endperiod=2000&detail=serieskeyonly

To request groups and series, including attributes and annotations without observations for one reporter-one partner-one product- one year-reported tariff rate

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/DF_WITS_Tariff_TRAINS/.840.000.020110.reported/?startperiod=2000&endperiod=2000&detail=nodata

Sample Response Format:

SDMX-ML 2.1 generic schema

```
<?xml version="1.0" encoding="utf-8"?>
<message:GenericData xmlns:message="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message"
  xmlns:generic="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/data/generic" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message SDMXMessage.xsd">
  <message:Header>
    <message:ID>DF_WITS_Tariff_TRAINS</message:ID>
    <message:Test>false</message:Test>
    <message:Prepared>2016-04-19T12:10:07</message:Prepared>
    <message:Sender id="WBG_WITS">...</message:Sender>
    <message:Structure structureID="WBG_WITS_TARIFF_TRAINS_1_1" dimensionAtObservation="TIME_PERIOD">...</message:Structure>
    <message:DataSetAction>Information</message:DataSetAction>
    <message:DataSetID>DF_WITS_Tariff_TRAINS_WBG_WITS_2016-04-19T121007</message:DataSetID>
    <message:Extracted>2016-04-19T12:10:07</message:Extracted>
  </message:Header>
  <message:DataSet structureRef="WBG_WITS_TARIFF_TRAINS_1_1">
    <generic:Attributes>
      <generic:Value id="DATASOURCE" value="TRN"/>
    </generic:Attributes>
    <generic:Series>
      <generic:SeriesKey>...</generic:SeriesKey>
      <generic:Obs>
        <generic:ObsDimension id="TIME_PERIOD" value="1997"/>
        <generic:ObsValue value="10"/>
        <generic:Attributes>
          <generic:Value id="TARIFFTYPE" value="MFN"/>
          <generic:Value id="OBS_VALUE_MEASURE" value="SimpleAverage"/>
          <generic:Value id="TOTALNOOFLINES" value="1"/>
          <generic:Value id="NBR_PREF_LINES" value="0"/>
          <generic:Value id="NBR_MFN_LINES" value="1"/>
          <generic:Value id="NBR_NA_LINES" value="0"/>
          <generic:Value id="SUM_OF_RATES" value="10"/>
          <generic:Value id="MIN_RATE" value="10"/>
          <generic:Value id="MAX_RATE" value="10"/>
          <generic:Value id="NOMENCODE" value="H1"/>
        </generic:Attributes>
      </generic:Obs>
    </generic:Series>
  </message:DataSet>
</message:GenericData>
```

SDMX-ML 2.1 structure specific schema

```
<?xml version="1.0" encoding="utf-8"?>
<message:StructureSpecificData xmlns:message="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message"
  xmlns:ns1="urn:sdmx:org.sdmx.infomodel.datastructure.DataStructure=WBG_WITS:TARIFF_TRAINS(1.1):obsLevelDim:TIME_PERIOD"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message SDMXMessage.xsd">
  <message:Header>
    <message:ID>DF_WITS_Tariff_TRAINS</message:ID>
    <message:Test>false</message:Test>
    <message:Prepared>2016-04-19T12:11:56</message:Prepared>
    <message:Sender id="WBG_WITS">
      <common:Name xml:lang="en" xmlns:common="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common">World Bank Group - WITS</common:Name>
      <message:Contact>
        <common:Name xml:lang="en" xmlns:common="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common">WITS Admin</common:Name>
        <message:Department xml:lang="en">DECDG</message:Department>
        <message:Role xml:lang="en">WITS Admin</message:Role>
        <message:Email>wits@worldbank.org</message:Email>
      </message:Contact>
    </message:Sender>
  </message:Header>
  <message:Structure structureID="WBG_WITS_TARIFF_TRAINS_1_1" namespace="urn:sdmx:org.sdmx.infomodel.datastructure.DataStructure=WBG_WITS:TARIFF_TRAINS(1.1):obsLevelDim:TIME_PERIOD" dimensionAtObservation="TIME_PERIOD">
    <common:Structure xmlns:common="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common">
      <Ref agencyID="WBG_WITS" id="TARIFF_TRAINS" version="1.1" />
    </common:Structure>
  </message:Structure>
  <message:DataSetAction>Information</message:DataSetAction>
  <message:DataSetID>DF_WITS_Tariff_TRAINS_WBG_WITS_2016-04-19T121156</message:DataSetID>
  <message:Extracted>2016-04-19T12:11:56</message:Extracted>
  <message:Header>
    <message:DataSet ss:datascope="DataStructure" xsi:type="ns1:DataSetType" ss:structureRef="WBG_WITS_TARIFF_TRAINS_1_1" DATASOURCE="TRN"
      xmlns:ss="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/data/structurespecific">
      <series FREQ="A" DATATYPE="Reported" REPORTER="008" PRODUCTCODE="250490" PARTNER="000">
        <Obs TIME_PERIOD="1997" OBS_VALUE="10" TARIFFTYPE="MFN" OBS_VALUE_MEASURE="SimpleAverage" TOTALNOOFLINES="1" NBR_PREF_LINES="0" NBR_MFN_LINES="1"
          NBR_NA_LINES="0" SUM_OF_RATES="10" MIN_RATE="10" MAX_RATE="10" NOMENCODE="H1" />
      </series>
    </message:DataSet>
  </message:StructureSpecificData>
```

JSON Format

```
{
  "header": {
    "id": "DF WITS Tariff TRAINS",
    "prepared": "2017-02-21T10:42:48",
    "test": false,
    "sender": {
      "id": "WBG WITS",
      "name": "World Bank Group - WITS"
    }
  },
  "dataSets": [
    {
      "action": "Information",
      "attributes": [
        0
      ],
      "series": {
      }
    }
  ],
  "structure": {
    "name": "WITS - UNCTAD TRAINS Tariff Data",
    "description": "Data flow to access WITS - UNCTAD TRAINS Preferential and most-favored-nation (MFN) tariff rates",
    "dimensions": {
      "dataset": [],
      "series": [
      ],
      "observation": [
      ]
    },
    "attributes": {
    },
    "annotations": []
  }
}
```

Error Response:

The following error response are returned for invalid parameter values or when the data is too large to return

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid reporter code

```
<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Reporter Code.">
    The provided reporter parameter value is not valid.
  </wits:message>
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid partner code

```
<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Partner Code.">The provided partner parameter value is not valid.</wits:message>
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid product code

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Product Code.">The provided product parameter value is not valid.</wits:message>
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid data type

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  ▼<wits:message id="150" key="Invalid Data Type Code.">
    The provided data type parameter value is not valid.
  </wits:message>
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid year

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Year.">The provided year parameter value is not valid.</wits:message>
</wits:error>
```

HTTP Response Status Code: 413

WITS Message Code: 150

Content: The request yield large data to return.

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="130" key="Response too large due to client request.">The provided parameter values return large data.</wits:message>
</wits:error>
```

TRADE Stats Data

Aggregate trade and tariff data, plus trade related and relevant development indicators are available through this API.

Trade Stats – Trade: Trade data such as total exports, number or products exported, exporting and importing partner countries and exported and imported product groups are available. Trade indicators like Hirschman Herfindahl market concentration index, index of market penetration, world growth and country growth in percentage.

Trade Stats – Tariff: Tariff information like number of trade agreements, simple and weighted average tariff, duty free imports value and duty free goods share in percentage are available.

Trade Stats – Development: Development indicators such as GDP, GNI per capita, Trade Balance, Trade and Services trade as percentage of GPD is available from WDI.

Trade, Tariff and Development indicator data can be downloaded by specifying values for the below dimensions:

Reporter: The Reporter ISO3 Country/Region Code. Refer [metadata section](#) for list of ISO3 Code and name for Countries/Region

Partner: The Partner ISO3 Country/Region Code. Refer [metadata section](#) for list of ISO3 Code and name for Countries/Region. Use "999" as partner for indicators where Partner dimension is not applicable.

Product Code: The product group code that belongs to Sector, Stage of Processing or SITC Rev2 Standard groups can be used. Refer [metadata section](#) for list of Product Group Codes and description. Use "999999" as Product for indicators where Product dimension is not applicable.

Year: Year for which data is needed. Refer [metadata section](#) for available years. Note Starting year is 1988

Indicator: The value can be a Trade, Tariff or Development indicator code. Refer [metadata section](#) for list of Indicator and description.

Limitation on Data Request

In order to avoid server overload, request for entire database is not possible in one query. The following are the options to request data

- Maximum of two dimension with "All" value is allowed.
- Data request with All Reporter and All Partners is not allowed.
- When two of the dimensions have "All", then rest of the dimension should have a specific value.
- Trade Stats data for a single reporter, partner, Indicator and product can be requested for a range of years.

Basic Call structure

The base URL to access WITS API is <http://wits.worldbank.org/API/V1>. The following section provides overview on call structure for URL based structure query request and SDMX query request. Note, Data Availability can be queried only in URL based structure request and not in SDMX Queries.

URL based structure Queries

To access [Meta data](#) and [data availability](#), the base URL is <http://wits.worldbank.org/API/V1/WITS>.

The [data availability](#) API's returns the available country periods in Trade Stats – Trade/Tariff/Development datasets. The [Indicator](#) API returns whether partner, product dimension are required for an indicator and the data request can be framed based on this response. To obtain country and partner names, use [Reporter-Partner](#) API's. To obtain the nomenclature name and product description use the [nomenclature](#) API's and [Product](#) API's respectively.

The base URL for data request is <http://wits.worldbank.org/API/V1/SDMX/V21/>. To access data for more than one value for a parameter, use the delimiter ";" to separate the values. To access data in JSON format include "?format=JSON" on the data request query.

SDMX Queries

The base URL to access [data flow](#), [codes list](#) and [Data Structure Definition \(DSD\)](#) is <http://wits.worldbank.org/API/V1/SDMX/V21/rest/>. The base URL to access Trade Stats-Trade dataset is http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade, Trade Stats-Tariff

dataset is http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_tariff and development data is http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_development

To access Trade Stats data for more than one value for a parameter, the use the delimiter “+” to separate the parameter values.

Response Format

Trade Stats – Trade: The data source value for Trade Stats – Trade indicator dataset is tradestats-trade. Let’s consider a sample request format for Reporter=USA; Partner=WLD; Product=fuels; year=2000 and Indicator= XPRT-TRD-VL (Export Trade Value)

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade/reporter/usa/year/2000/partner/wld/product/fuels/indicator/XPRT-TRD-VL>

Part of the response for the above request looks like below

```
<message:DataSetAction>Information</message:DataSetAction>
<message:DataSetID>DF_WITS_TradeStats_Trade_WBG_WITS_2016-05-06T161656</message:DataSetID>
<message:Extracted>2016-05-06T16:16:56</message:Extracted>
</message:Header>
<message:DataSet ss:dataScope="DataStructure" xsi:type="ns1:DataSetType" ss:structureRef="WBG_WITS_TRADESTATS_1_0" xmlns:ss
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="Fuels" INDICATOR="XPRT-TRD-VL">
    <Obs TIME_PERIOD="2000" OBS_VALUE="13812799.846" DATASOURCE="WITS-CMT" />
  </Series>
</message:DataSet>
```

Trade Stats – Tariff: The data source value for Trade Stats – Tariff indicator dataset is tradestats-tariff. Let’s consider a sample request format for Reporter=USA; Partner=WLD; Product=fuels; year=2000 and Indicator= AHS-SMPL-AVRG (AHS Simple Average (%))

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-tariff/reporter/usa/year/2000/partner/wld/product/fuels/indicator/AHS-SMPL-AVRG>

Part of the response for the above request looks like below

```
<message:DataSetID>DF_WITS_TradeStats_Tariff_WBG_WITS_2016-05-06T162607</message:DataSetID>
<message:Extracted>2016-05-06T16:26:07</message:Extracted>
</message:Header>
<message:DataSet ss:dataScope="DataStructure" xsi:type="ns1:DataSetType" ss:structureRef="WBG_WITS_TRADESTATS_1_0" xmlns:ss="htt
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="Fuels" INDICATOR="AHS-SMPL-AVRG">
    <Obs TIME_PERIOD="2000" OBS_VALUE="1.94598425779542" DATASOURCE="WITS-TRN" />
  </Series>
</message:DataSet>
```

Trade Stats – Development: The data source value for Trade Stats – Development indicator dataset is tradestats-development. Let’s consider a sample request format for Reporter=USA; year=2005 and Indicator= BG-GSR-NFSV-GD-ZS (Trade in services (% of GDP))

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-development/reporter/usa/year/2005/indicator/BG-GSR-NFSV-GD-ZS>

Part of the response for the above request looks like below

```

<message:DataSetID>DF_WITS_TradeStats_Development_WBG_WITS_2016-05-06T163206</message:DataSetID>
<message:Extracted>2016-05-06T16:32:06</message:Extracted>
</message:Header>
<message:DataSet ss:dataScope="DataStructure" xsi:type="ns1:DataSetType" ss:structureRef="WBG_WITS_TRADESTATS_1_0" xmlns:ss="http://www.worldbank.org/wits" >
  <Series FREQ="A" REPORTER="USA" PARTNER="999" PRODUCTCODE="999999" INDICATOR="BG-GSR-NFSV-GD-ZS">
    <Obs TIME_PERIOD="2005" OBS_VALUE="5.1738901517" DATASOURCE="WDI" />
  </Series>
</message:DataSet>

```

On all of the above response, OBS_VALUE has the indicator value along with the requested dimension values

URL based structure request

There are two types of request: One request type is to retrieve the Meta data and other request type is to retrieve the trade stats data.

Meta Data Request

This section helps to get data availability, country list, available partners for a given country period.

Reporter and Partner:

This API helps to obtain reporter and partner name, alpha numeric code, ISO3 code and other Meta data about the countries that are available in each Trade Stats trade, tariff and development datasets

URL:

<http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade|tradestats-tariff|tradestats-development/country/ALL|:CountryCode|:CountryCodeList>

Method:

GET

URL Parameter:

ALL: To retrieve all countries/partners Meta data.

:CountryCode= Three letter ISO3 code

:CountryCodeList= List of ISO3 codes separated by delimiter(,)

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information about the requested country/partner

- Country Code
- ISO3 Code
- Name
- Is the country code available as reporter?
- Is the country code available as partner?
- Does the country code refer to a group

- Group Type
- Notes

Sample Request:

To request all countries:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/country/ALL>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/country/ALL>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/country/ALL>

To request a specific country:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/country/usa>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/country/usa>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/country/usa>

To request list of countries:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/country/jpn;eas>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/country/jpn;eas>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/country/jpn;eas>

Sample Response Format:

```

▼ <wits:country countrycode="004" isreporter="1" ispartner="1" isgroup="No" grouptype="N/A">
  <wits:iso3Code>AFG</wits:iso3Code>
  <wits:name>Afghanistan</wits:name>
  <wits:notes/>
</wits:country>
▼ <wits:country countrycode="008" isreporter="1" ispartner="1" isgroup="No" grouptype="N/A">
  <wits:iso3Code>ALB</wits:iso3Code>
  <wits:name>Albania</wits:name>
  <wits:notes/>
</wits:country>

```

Nomenclature

This API helps to obtain information on nomenclatures that are available in the Trade Stats dataset. Note: Only Trade Stats-Trade and Trade Stats-Tariff dataset has nomenclature information

Note: The nomenclature is for identifying base nomenclature but the product codes are at a higher level of aggregation. For example in HS the product is aggregated above the 2 digit level Animals (01 to 05)

URL:

[http://wits.worldbank.org/API/V1/wits/datasource/ tradestats-trade|tradestats-tariff / nomenclature /ALL|:nomenCode|: nomenCodeList](http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade|tradestats-tariff/nomenclature/ALL|:nomenCode|:nomenCodeList)

Method:

GET

URL Parameter:

ALL: To retrieve all of nomenclature Meta data available in the dataset

: nomenCode = Two letter alpha numeric nomenclature code

: nomenCodeList = List of two letter alpha numeric nomenclature codes separated by delimiter(;

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information about the requested nomenclature

- Nomenclature code
- Nomenclature description
- Nomenclature Name

Sample Request:

To request all classifications:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/nomenclature/>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/nomenclature/>

To request a specific classification:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/nomenclature/h0>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/nomenclature/s2>

Sample Response Format:

```
▼<wits:datasource xmlns:wits="http://wits.worldbank.org" datasourcecode="tradestats-tariff" datasourcenname="WITS TradeStats - Tariff" language="en" total="2">
  ▼<wits:nomenclatures>
    <wits:nomenclature nomenclaturecode="H0" description="Harmonized System 1988/92">HS 1988/92</wits:nomenclature>
    <wits:nomenclature nomenclaturecode="S2" description="Standard International Trade Classification, Revision 2">SITC Revision 2</wits:nomenclature>
  </wits:nomenclatures>
</wits:datasource>
```

Product

This API helps to obtain information on the products that are available in the Trade stats–Trade and Trade stats-Tariff dataset.

Note: The products are grouping of multiple HS and SITC code respectively.

URL:

<http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade|tradestats-tariff/product/ALL|:productCode|:productCodeList>

Method:

GET

URL Parameter:

ALL: To access all of the products metadata available in this dataset

: productCode = Product group code

: productCodeList = List of product group codes separated by delimiter(,)

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information about the product codes.

- Product code
- Product description
- Is the product code group?
- Product Group Type
- Notes

Sample Request:

To request all products:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/product/all>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/product/all>

To request a specific product:

Tariff: [http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/product/44-49 Wood;fuels](http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/product/44-49%20Wood;fuels)

Trade: [http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/product/44-49 Wood;fuels](http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/product/44-49%20Wood;fuels)

Sample Response Format:

```
▼<wits:product productcode="999999" isgroup="N/A" nomenclaturecode="N/A" grouptype="N/A">
  <wits:productdescription>Not Applicable</wits:productdescription>
  <wits:notes/>
</wits:product>
▼<wits:product productcode="01-05_Animal" isgroup="Yes" nomenclaturecode="H0" grouptype="Sector">
  <wits:productdescription>Animal</wits:productdescription>
  <wits:notes/>
</wits:product>
▼<wits:product productcode="06-15_Vegetable" isgroup="Yes" nomenclaturecode="H0" grouptype="Sector">
  <wits:productdescription>Vegetable</wits:productdescription>
  <wits:notes/>
</wits:product>
```

Indicator

The API helps to obtain indicator code, name, source, topic, periodicity and other Meta data about the indicators that are available in Trade Stats- trade, tariff and development datasets

URL:

<http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade|tradestats-tariff|tradestats-development/indicator/ALL|:IndicatorCode|:IndicatorCodeList>

Method:

GET

URL Parameter:

ALL: To retrieve all indicators.

:IndicatorCode= indicator code

:IndicatorCodeList= List of indicator codes separated by delimiter(;)

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information about the requested indicator the datasets

- Indicator Code
- Is Partner Required (for indicators that have a valid partner dimension other than 999 N/A)
- SDMX Partner Value (if the Partner required is “no”, the value to provide for SDMX data request query)
- Is Product Required (for indicators that have a valid product dimension other than 999999 N/A)
- SDMX Product Value (if the Product required is “no”, the value to provide for SDMX data request query)
- Indicator Name
- Indicator Definition
- Source
- Topic

- Periodicity
- Valuation
- Currency
- Notes

Sample Request:

To request all Indicators:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/indicator/ALL>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/indicator/ALL>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/indicator/ALL>

To request a specific Indicator:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/indicator/HH-MKT-CNCNTRTN-NDX>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/indicator/AHS-DTY-FR-MPRTs>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/indicator/TM-VAL-SERV-CD-WT>

To request list of Indicators:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/indicator/HH-MKT-CNCNTRTN-NDX;NMBR-XPRT-HS6-PRDCT>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/indicator/AHS-DTY-FR-MPRTs;MFN-DTBL-MPRT>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/indicator/IQ-CPA-TRAD-XQ;TX-VAL-MRCH-XD-WD>

Sample Response Format:

```

▼<wits:indicator indicatorcode="CENTRY-GRWTH" ispartnerequired="yes" SDMX_partnervalue="" isproductrequired="yes" SDMX_productvalue="">
  <wits:name>Country Growth (%)</wits:name>
  ▼<wits:definition>
    Annual percentage growth rate of the country's trade value (export or import), by sector, at market prices in current U.S. dollars.
  </wits:definition>
  <wits:source>WITS - UNSD Comtrade</wits:source>
  <wits:topic>Trade</wits:topic>
  <wits:productclassification>Harmonized System 1988/92, SITC Revision 2</wits:productclassification>
  <wits:periodicity>Annual</wits:periodicity>
  <wits:valuation>Export - FOB; Import - CIF</wits:valuation>

```

Data Availability

The API helps to obtain data availability in the Trade Stats-Trade/Tariff/Development dataset. It provides the data availability for entire Trade/Tariff/Development datasets or data availability for one or

more reporters, one more indicators or in given year(s) indicator data in Trade/Tariff/Development dataset.

URL:

[http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade|tradestats-tariff|tradestats-development / dataavailability](http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade|tradestats-tariff|tradestats-development/dataavailability)

[http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade|tradestats-tariff|tradestats-development / dataavailability/country/ALL|:countryCode|:countryCodeList/year/ALL:year|:yearList/indicator/ALL|:IndicatorCode|:IndicatorCodeList](http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade|tradestats-tariff|tradestats-development/dataavailability/country/ALL|:countryCode|:countryCodeList/year/ALL:year|:yearList/indicator/ALL|:IndicatorCode|:IndicatorCodeList)

Method:

GET

URL Parameter:

ALL: To access all available entries in this dataset.

:CountryCode= Three letter alpha numeric country code

:CountryCodeList= List of three letter alpha numeric country codes separated by delimiter(;

: year = {integer}

:yearList= List of years separated by delimiter(;

:IndicatorCode= indicator code

:IndicatorCodeList= List of indicator codes separated by delimiter(;

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the following information on data availability

- Country Information (Country name, code, iso3, Is group, group type)
- Year
- Reported Nomenclature
- Is the estimated tariff rate available for specific duty expression (applicable only to Trade Stats – Tariff dataset)
- notes
- Last updated date

Sample Request:

To request entire (all country periods) data availability:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/dataavailability/>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/dataavailability/>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/dataavailability/>

To request a specific country and all years and all indicators:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/dataavailability/country/usa/indicator/all>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/dataavailability/country/usa/indicator/all>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/dataavailability/country/usa/indicator/all>

To request all indicators and a specific year:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/dataavailability/year/2007/indicator/all>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/dataavailability/year/2007/indicator/all>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/dataavailability/year/2007/indicator/all>

To request list of countries, all years and all indicators:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/dataavailability/country/usa;jpn/indicator/all>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/dataavailability/country/usa;jpn/indicator/all>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/dataavailability/country/usa;jpn/indicator/all>

To request all countries, all Indicators and list of years:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/dataavailability/year/2007;2008/indicator/all>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/dataavailability/year/2007;2008/indicator/all>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/dataavailability/year/2007;2008/indicator/all>

To request a specific indicator for all countries and all years:

Trade: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-trade/dataavailability/country/all/year/all/indicator/MPRT-TRD-VL>

Tariff: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-tariff/dataavailability/country/all/year/all/indicator/AHS-WGHTD-AVRG>

Development: <http://wits.worldbank.org/API/V1/wits/datasource/tradestats-development/dataavailability/country/all/year/all/indicator/NE-TRD-GNFS-ZS>

Sample Response Format:

```
.....
▼<wits:reporter countrycode="533" iso3Code="ABW" isgroup="No" grouptype="N/A">
  <wits:name>Aruba</wits:name>
  <wits:year>2000</wits:year>
  <wits:reporternomenclature reporternomenclaturecode="H0;S2">Harmonized System 1988/92;SITC Revision 2</wits:reporternomenclature>
  <wits:numberofpreferentialagreement>N/A</wits:numberofpreferentialagreement>
  <wits:partnerlist>All Partners</wits:partnerlist>
  <wits:isspecificdutyexpressionestimatedavailable>N/A</wits:isspecificdutyexpressionestimatedavailable>
  <wits:notes/>
  <wits:lastupdateddate>Aug-24-2015</wits:lastupdateddate>
</wits:reporter>
▼<wits:reporter countrycode="533" iso3Code="ABW" isgroup="No" grouptype="N/A">
  <wits:name>Aruba</wits:name>
  <wits:year>2001</wits:year>
  <wits:reporternomenclature reporternomenclaturecode="H0;S2">Harmonized System 1988/92;SITC Revision 2</wits:reporternomenclature>
  <wits:numberofpreferentialagreement>N/A</wits:numberofpreferentialagreement>
  <wits:partnerlist>All Partners</wits:partnerlist>
  <wits:isspecificdutyexpressionestimatedavailable>N/A</wits:isspecificdutyexpressionestimatedavailable>
  <wits:notes/>
  <wits:lastupdateddate>Aug-24-2015</wits:lastupdateddate>
</wits:reporter>
```

Error Response:

The following error response is obtained for invalid parameter values

WITS Message Code: 160

Content: Data not found

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  ▼<wits:message id="160" key="Data not found.">
    The provided parameter value is not valid or data not found.
  </wits:message>
</wits:error>
```

Trade Stats Data Request

This API offer variety of options to retrieve the data. User can request for a country--partner-product-indicator over period of time.

URL:

Country-Year-Partner-Product Indicators (Trade Stats – Trade and Trade Stats – Tariff dataset only):

[http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade|tradestats-tariff|tradestats-development/reporter/{ALL|Reporter Code list}/year/{ALL|Year List}/partner/{ALL|Partner Code list}/product/{ALL|Product Code list}/indicator/{ALL|Indicator code list}\[?format=JSON\]](http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade|tradestats-tariff|tradestats-development/reporter/{ALL|Reporter Code list}/year/{ALL|Year List}/partner/{ALL|Partner Code list}/product/{ALL|Product Code list}/indicator/{ALL|Indicator code list}[?format=JSON])

Country-Year-Partner Indicators (Trade Stats – Trade and Trade Stats – Tariff dataset only):

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade|tradestats-tariff|tradestats-development/reporter/{ALL|Reporter Code list}/year/{ALL|Year List}/partner/{ALL|Partner Code list}/indicator/{ALL|Indicator code list}>

Country-Year Indicators (Trade stats- Trade and Trade Stats – Development dataset only):

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade|tradestats-tariff|tradestats-development/reporter/{ALL|Reporter Code list}/year/{ALL|Year List}/indicator/{ALL|Indicator code list}>

Method:

GET

URL Parameter:

Data Source: The value to access trade indicators is tradestats-trade. The value to access tariff is tradestats-tariff and development indicator is tradestats-development.

Reporter: The reporter parameter can have the value of “All” or list of country ISO3 codes from Reporter and Partner metadata request.

Product: The product parameter can the value of “All” or list of product group codes, which can be obtained from Product Metadata request.

Partner: The partner parameter can have the value of “All” or list of partner codes obtained from data availability metadata request call.

Year: The year parameter can have the value of “All” or list of values obtained from data availability metadata request call.

Indicator: The indicator parameter can the value of “All” or list of indicator codes, which can be obtained from Indicator Metadata request.

Format: The format parameter can have the value of “JSON”. When a valid format parameter is specified, the data is returned in JSON format.

Response Format:

XML for JSON (when “?format=JSON” present on the URL parameter)

Success Response:

HTTP Response Status Code: 200

Content: The response has the indicator data for the requested dimensions.

Sample Request:

Country-Year-Partner-Product Indicator request:

To request one reporter-one partner-one product- one year-one indicator:

Trade: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade/reporter/usa/year/2000/partner/wld/product/fuels/indicator/XPRT-TRD-VL>

Tariff: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-tariff/reporter/usa/year/2000/partner/jpn/product/fuels/indicator/AHS-SMPL-AVRG>

To request one reporter-one partner-one product- one year-All indicator in JSON format:

Trade: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade/reporter/usa/year/2000/partner/all/product/fuels/indicator/all?format=JSON>

Tariff: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-tariff/reporter/usa/year/2000/partner/all/product/fuels/indicator/all?format=JSON>

Country-Year-Partner Indicator request:

To request one reporter-ALL partner- one year-one indicator:

Trade: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade/reporter/usa/year/2000/partner/all/indicator/MPRT-PRTNR-SHR>

Tariff: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-tariff/reporter/usa/year/2000/partner/all/indicator/TRF-NMBR-AGGRMNT>

To request one reporter-ALL partner- one year-all indicator:

Trade: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade/reporter/usa/year/2000/partner/all/indicator/all>

Tariff: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-tariff/reporter/usa/year/2000/partner/all/product/fuels/indicator/all>

Country-Year Indicator request:

To request ALL reporter- one year-ALL indicator:

Trade: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade/reporter/all/year/2000/indicator/all>

Development:

<http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-development/reporter/usa/year/2000/indicator/all>

To request ALL reporter- All year-one indicator in JSON Format:

Trade: <http://wits.worldbank.org/API/V1/SDMX/V21/datasource/tradestats-trade/reporter/all/year/all/indicator/NDX-XPRT-MKT-PNRTTN?format=JSON>

WITS Message Code: 150**Content:** Invalid reporter code

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  ▼<wits:message id="150" key="Invalid Reporter Code.">
    The provided reporter parameter value is not valid.
  </wits:message>
</wits:error>
```

HTTP Response Status Code: 400**WITS Message Code: 150****Content:** Invalid partner code

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Partner Code.">The provided partner parameter value is not valid.</wits:message>
</wits:error>
```

HTTP Response Status Code: 400**WITS Message Code: 150****Content:** Invalid product code

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Product Code.">The provided product parameter value is not valid.</wits:message>
</wits:error>
```

HTTP Response Status Code: 400**WITS Message Code: 150****Content:** Invalid year

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="150" key="Invalid Year.">The provided year parameter value is not valid.</wits:message>
</wits:error>
```

HTTP Response Status Code: 400**WITS Message Code: 150****Content:** The request yield large data to return.

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">
  <wits:message id="130" key="Response too large due to client request.">The provided parameter values return large data.</wits:message>
</wits:error>
```

SDMX Query Request

There are two types of request: One request type is to retrieve the Meta data and other request type is to retrieve trade stats data. The following two SDMX response format are supported.

SDMX-ML 2.1 generic schema: The response is provided by default

SDMX-ML 2.1 structure specific schema: The structure specific schema is more suited for processing of large data amounts. To get the response in this format, modify the HTTP request header field "Accept: application/vnd.sdmx.structurespecificdata+xml" on the SDMX query request. More information about SDMX-ML formats is available in document [SDMX guidelines for the use of web services](#)

JSON Format: To get the data in JSON format, modify the HTTP request header field "Accept: application/vnd.sdmx.data+json;version=1.0.0-wd" on the SDMX data query request

Meta Data Request

This section explains the call to get dataflow, code list and Data Structure Definition (DSD).

Data Flow

This API retrieves the unique dataset code for UNCTAD TRAINS dataset.

URL:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/dataflow/wbg_wits/

Method:

GET

URL Parameter:

None

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the data flow code to access the Trade Stats – Traded, Trade Stats – Tariff and Trade Stats – Development datasets

Sample Request:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/dataflow/wbg_wits/

Sample Response Format:

```
▼<Dataflow id="DF_WITS_TradeStats_Development" urn="urn:sdmx:org.sdmx.infomodel.datastructure.Dataflow=WBG_WITS:DF_WITS_TradeStats_Develop
  <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">WITS TradeStats Development</Name>
  ▼<Description xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">
    Development indicators such as GDP, GNI per capita, Trade Balance, Trade and Services trade as percentage of GPD is available from WDI
  </Description>
  ▼<Structure>
    <Ref xmlns="" id="TRADESTATS" version="1.0" agencyID="WBG_WITS" package="datastructure" class="DataStructure"/>
  </Structure>
</Dataflow>
▼<Dataflow id="DF_WITS_TradeStats_Tariff" urn="urn:sdmx:org.sdmx.infomodel.datastructure.Dataflow=WBG_WITS:DF_WITS_TradeStats_Tariff(1.0)"
  <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">WITS TradeStats Tariff</Name>
  ▼<Description xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">
    Tariff information like number of trade agreements, simple and weighted average tariff, duty free imports value and duty free goods sh
  </Description>
  ▼<Structure>
    <Ref xmlns="" id="TRADESTATS" version="1.0" agencyID="WBG_WITS" package="datastructure" class="DataStructure"/>
  </Structure>
</Dataflow>
▼<Dataflow id="DF_WITS_TradeStats_Trade" urn="urn:sdmx:org.sdmx.infomodel.datastructure.Dataflow=WBG_WITS:DF_WITS_TradeStats_Trade(1.0)" ag
  <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">WITS TradeStats Trade</Name>
  ▼<Description xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">
    Trade data such as total exports, number or products exported, top exporting and importing partner countries and top exported and impo
  </Description>
  ▼<Structure>
    <Ref xmlns="" id="TRADESTATS" version="1.0" agencyID="WBG_WITS" package="datastructure" class="DataStructure"/>
  </Structure>
</Dataflow>
--
```

Code List

This API retrieves the code list for the entire datasets in the WITS API.

URL:

<http://wits.worldbank.org/API/V1/SDMX/V21/rest/codelist/all>

Method:

GET

URL Parameter:

None

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the code list available for various dimension in UNCTAD TRAINS traded and non-traded tariff lines tariff schedule

Sample Request:

<http://wits.worldbank.org/API/V1/SDMX/V21/rest/codelist/all/>

Sample Response Format:

```
▼<Structure xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message">
  ▼<Header>
    <ID>World Bank Group - WITS</ID>
    <Test>true</Test>
    <Prepared>2016-03-28T10:30:47-04:00</Prepared>
    ▼<Sender id="WBG_WITS">
      <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">World Integrated Trade
      Solution</Name>
      ▶<Contact>...</Contact>
    </Sender>
    ▼<Receiver id="Unknown">
      <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
      ▶<Contact>...</Contact>
    </Receiver>
    <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
    <Source xml:lang="en">WITS</Source>
  </Header>
  ▼<Structures>
    ▶<Codelists xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/structure">...</Codelists>
  </Structures>
</Structure>
```

Data Structure Definition (DSD)

This API retrieves the Data Structure Definition (DSD) for the Trade Stats dataset

URL:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/datastructure/WBG_WITS/TRADESTATS/

Method:

GET

URL Parameter:

None

Response Format:

XML

Success Response:

HTTP Response Status Code: 200

Content: The response has the Data Structure Definition (DSD) for Trade Stats dataset.

Sample Request:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/datastructure/WBG_WITS/TRADESTATS/

Sample Response Format:

```
</Sender>
</Receiver id="Unknown">
  <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
  <Contact>
    <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Unknown</Name>
    <Department xml:lang="en">Information Technology</Department>
    <Role xml:lang="en">Unknown</Role>
  </Contact>
</Receiver>
<Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Trans46302</Name>
<Source xml:lang="en">WITS</Source>
</Header>
<Structures>
  <DataStructures xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/structure">
    <DataStructure id="TRADESTATS" urn="urn:sdmx:org.sdmx.infomodel.datastructure.DataStructure=WBG_WITS:TRADESTATS(1.0)" agencyID="WBG_WITS" version="1.0" isFinal="true">
      <Name xmlns="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common" xml:lang="en">Country Trade Statistics</Name>
      <DataStructureComponents>
        <DimensionList id="DimensionDescriptor" urn="urn:sdmx:org.sdmx.infomodel.datastructure.DimensionDescriptor=WBG_WITS:TRADESTATS(1.0).DimensionDescriptor">...</DimensionList>
        <AttributeList id="AttributeDescriptor" urn="urn:sdmx:org.sdmx.infomodel.datastructure.AttributeDescriptor=WBG_WITS:TRADESTATS(1.0).AttributeDescriptor">...</AttributeList>
        <MeasureList id="MeasureDescriptor" urn="urn:sdmx:org.sdmx.infomodel.datastructure.MeasureDescriptor=WBG_WITS:TRADESTATS(1.0).MeasureDescriptor">...</MeasureList>
      </DataStructureComponents>
    </DataStructure>
  </DataStructures>
</Structures>
</Structure>
```

Error Response:

The following error response is returned for invalid parameter value.

HTTP Response Status Code: 404

Content: Invalid structure code

```
<string xmlns="http://schemas.microsoft.com/2003/10/Serialization/">No structures found for the specific query</string>
```

Trade Stats Data Request

This API offer variety of options to retrieve the Trade Stats – Trade data, Trade Stats – Tariff data and Trade Stats – Development data

URL:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade|df_wits_tradestats_tariff|df_wits_tradestats_development/<Freq>.<Reporter>.<Partner>.<productCode>.<indicator>/?startperiod=<year>&endperiod=<year>&detail=Full | DataOnly | SeriesKeysOnly | NoData

Method:

GET

URL Parameter:

Freq: The possible value for frequency is “A”. If no value is specified, it is considered as all frequencies.

Reporter: The reporter parameter can have the value of “All” or list of country ISO3 codes from Reporter and Partner metadata request.

Product: The product parameter can the value of “All” or list of product group codes, which can be obtained from Product Metadata request.

Partner: The partner parameter can have the value of “All” or list of partner codes obtained from data availability metadata request call.

Year: The year parameter can have the value of “All” or list of values obtained from data availability metadata request call.

Indicator: The indicator parameter can the value of “All” or list of indicator codes, which can be obtained from Indicator Metadata request.

StartPeriod: This is a year parameter and can have the value from 1988 onwards. If ignored, trade stats data for available years will be returned.

EndPeriod: This is a year parameter and can have the value from 1988 onwards. If ignored, the trade stats data available from the start period to the latest available years will be returned.

Detail: This is an optional parameter and specifies the desired amount of information to be returned. It can take one of the below values

- **Full:** all data and documentation, including annotations (default)
- **DataOnly:** attributes – and therefore groups – will be excluded
- **SeriesKeysOnly:** only the series elements and the dimensions that make up the series keys
- **NoData:** returns the groups and series, including attributes and annotations, without observations

Response Format:

XML- SDMX-ML 2.1 generic schema, XML- SDMX-ML 2.1 structure specific schema or JSON format.

Success Response:

HTTP Response Status Code: 200

Content: The response has the indicator data for the requested dimensions.

Sample Request:

Country-Year-Partner-Product Indicator request:

To request one reporter-one partner-one product- one year-one indicator:

Trade:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade/A.usa.wld.fuels.XPRT-TRD-VL?startPeriod=2000&endPeriod=2002

Tariff:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_tariff/A.usa.wld.fuels.AHS-SMPL-AVRG?startPeriod=2000&endPeriod=2002

To request one reporter-one partner-one product- one year-All indicator:

Trade:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade/A.usa.wld.fuels./?startPeriod=2000&endPeriod=2002

Tariff:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_tariff/A.usa.wld.fuels./?startPeriod=2000&endPeriod=2002

Country-Year-Partner Indicator request:

To request one reporter-ALL partner- one year-one indicator:

Trade:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade/A.usa..999999.MPRT-PRTR-SHR?startPeriod=2000&endPeriod=2002

Tariff:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_tariff/A.usa..999999.TRF-NMBR-AGGRMNT?startPeriod=2000&endPeriod=2002

To request one reporter-ALL partner- one year-all indicator:

Trade:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade/A.usa..999999.?startPeriod=2000&endPeriod=2002

Tariff:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_tariff/A.usa..999999.?startPeriod=2000&endPeriod=2002

Country-Year Indicator request:

To request ALL reporter- one year-ALL indicator:

Trade:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade/A..999.999999.?startPeriod=2000&endPeriod=2002

Development:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_development/A..999.999999.9.?startPeriod=2000&endPeriod=2002

To request ALL reporter- All year-one indicator:

Trade:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade/A..999.999999.hNDX-XPRT-MKT-PNRTTN

Development:

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_development/A..999.999999.9.NE-TRD-GNFS-ZS

To request series elements and the dimension the makeup the series key for one reporter-one partner-one product- one year-one indicator

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade/A.usa.wld.fuels.XPRT-TRD-VL?startPeriod=2000&endPeriod=2002&detail=serieskeyonly

To request groups and series, including attributes and annotations without observations for one reporter-one partner-one product- one year-reported tariff rate

http://wits.worldbank.org/API/V1/SDMX/V21/rest/data/df_wits_tradestats_trade/A.usa.wld.fuels.XPRT-TRD-VL?startPeriod=2000&endPeriod=2002&detail=nodata

Sample Response Format:

SDMX-ML 2.1 generic schema

```
▼<message:GenericData xmlns:message="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message" xmlns:generic="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message_SDMXMessage.xsd" xsi:schemaLocation="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message_SDMXMessage.xsd">
  ▼<message:Header>
    <message:ID>DF_WITS_TradeStats_Trade</message:ID>
    <message:Test>false</message:Test>
    <message:Prepared>2016-05-09T13:21:52</message:Prepared>
    ▶<message:Sender id="WBG_WITS">...</message:Sender>
    ▶<message:Structure structureID="WBG_WITS_TRADESTATS_1_0" dimensionAtObservation="TIME_PERIOD">...</message:Structure>
    <message:DataSetAction>Information</message:DataSetAction>
    ▶<message:DataSetID>...</message:DataSetID>
    <message:Extracted>2016-05-09T13:21:52</message:Extracted>
  </message:Header>
  ▼<message:DataSet structureRef="WBG_WITS_TRADESTATS_1_0">
    ▼<generic:Series>
      ▼<generic:SeriesKey>
        <generic:Value id="FREQ" value="A"/>
        <generic:Value id="REPORTER" value="USA"/>
        <generic:Value id="PARTNER" value="WLD"/>
        <generic:Value id="PRODUCTCODE" value="01-05_Animal"/>
        <generic:Value id="INDICATOR" value="CNTRY-GRWTH"/>
      </generic:SeriesKey>
      ▼<generic:Obs>
        <generic:ObsDimension id="TIME_PERIOD" value="2000"/>
        <generic:ObsValue value="5.79998403521664"/>
        ▼<generic:Attributes>
          <generic:Value id="DATASOURCE" value="WITS-CMT"/>
        </generic:Attributes>
      </generic:Obs>
    </generic:Series>
    ▼<generic:Series>
      ▼<generic:SeriesKey>
        <generic:Value id="FREQ" value="A"/>
        <generic:Value id="REPORTER" value="USA"/>
        <generic:Value id="PARTNER" value="WLD"/>
        <generic:Value id="PRODUCTCODE" value="01-05_Animal"/>
        <generic:Value id="INDICATOR" value="MPRT-PRDCT-SHR"/>
      </generic:SeriesKey>
      ▼<generic:Obs>
        <generic:ObsDimension id="TIME_PERIOD" value="2000"/>
        <generic:ObsValue value="1.257"/>
        ▼<generic:Attributes>
          <generic:Value id="DATASOURCE" value="WITS-CMT"/>
        </generic:Attributes>
      </generic:Obs>
    </generic:Series>
  </message:DataSet>
</message:GenericData>
```

SDMX-ML 2.1 structure specific schema

```

<?xml version="1.0" encoding="utf-8"?>
<message:StructureSpecificData xmlns:message="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/message" xmlns:ns:
<message:Header>
  <message:ID>DF_WITS_TradeStats_Trade</message:ID>
  <message:Test>>false</message:Test>
  <message:Prepared>2016-05-09T13:23:01</message:Prepared>
  <message:Sender id="WBG WITS">...</message:Sender>
  <message:Structure structureID="WBG WITS TRADES" namespace="urn:sdmx:org.sd" dimensionAtObservation="TIME PEI
  <message:DataSetAction>Information</message:DataSetAction>
  <message:DataSetID>DF_WITS_TradeStats_Trade_WBG_WITS_2016-05-09T132301</message:DataSetID>
  <message:Extracted>2016-05-09T13:23:01</message:Extracted>
</message:Header>
<message:DataSet ss:dataScope="DataStructure" xsi:type="ns1:DataSetType" ss:structureRef="WBG_WITS_TRADESTATS_
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="01-05_Animal" INDICATOR="CNTRY-GRWTH">
    <Obs TIME_PERIOD="2000" OBS_VALUE="5.79998403521664" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="01-05_Animal" INDICATOR="MPRT-PRDCT-SHR">
    <Obs TIME_PERIOD="2000" OBS_VALUE="1.257" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="01-05_Animal" INDICATOR="MPRT-TRD-VL">
    <Obs TIME_PERIOD="2000" OBS_VALUE="15814321.331" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="01-05_Animal" INDICATOR="RCA">
    <Obs TIME_PERIOD="2000" OBS_VALUE="0.8" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="01-05_Animal" INDICATOR="WRLD-GRWTH">
    <Obs TIME_PERIOD="2000" OBS_VALUE="1.42362212045672" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="01-05_Animal" INDICATOR="XPRT-PRDCT-SHR">
    <Obs TIME_PERIOD="2000" OBS_VALUE="1.5169" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="01-05_Animal" INDICATOR="XPRT-TRD-VL">
    <Obs TIME_PERIOD="2000" OBS_VALUE="11836865.403" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="06-15_Vegetable" INDICATOR="CNTRY-GRWTH">
    <Obs TIME_PERIOD="2000" OBS_VALUE="-1.67613015012208" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="06-15_Vegetable" INDICATOR="MPRT-PRDCT-SHR">
    <Obs TIME_PERIOD="2000" OBS_VALUE="1.3391" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="06-15_Vegetable" INDICATOR="MPRT-TRD-VL">
    <Obs TIME_PERIOD="2000" OBS_VALUE="16847225.13" DATASOURCE="WITS-CMT" />
  </Series>
  <Series FREQ="A" REPORTER="USA" PARTNER="WLD" PRODUCTCODE="06-15_Vegetable" INDICATOR="RCA">
    <Obs TIME_PERIOD="2000" OBS_VALUE="1.32" DATASOURCE="WITS-CMT" />
  </Series>

```


WITS Message Code: 150

Content: Invalid product code

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">  
  <wits:message id="150" key="Invalid Product Code.">The provided product parameter value is not valid.</wits:message>  
</wits:error>
```

HTTP Response Status Code: 400

WITS Message Code: 150

Content: Invalid year

```
▼<wits:error xmlns:wits="http://wits.worldbank.org">  
  <wits:message id="150" key="Invalid Year.">The provided year parameter value is not valid.</wits:message>  
</wits:error>
```

HTTP Response Status Code: 413

WITS Message Code: 150

Content: The request yield large data to return.