
PyPtax

Release 0.1.0

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PyPtax is a Python library to retrieve information on Ptax Rates.

INSTALLATION

Install the latest released version from [PyPI](#):

```
$ pip install pyptax
```

Install the development version from GitHub:

```
$ pip install git+https://github.com/brunobcardoso/pyptax
```

Installing from source:

PyPtax is actively developed on GitHub, where the code is available under the MIT license.

```
$ git clone https://github.com/brunobcardoso/pyptax.git
$ cd pyptax
$ pip install -e ".[dev]"
```


QUICKSTART

2.1 Closing Ptax rates for a requested date

As a simple example, we'll request closing Ptax rates on January 20, 2020. We have to inform the date in the format YYYY-MM-DD.

```
>>> from pyptax import ptax
>>> bulletin = ptax.close('2020-01-20')
>>> bulletin
Bulletin(
  datetime="2020-01-20 13:09:02.871",
  bid=4.1823,
  ask=4.1829,
  bulletin_type="close"
)
```

The `ptax.close` returns an instance of `Bulletin`:

```
>>> bulletin.datetime
'2020-01-20 13:09:02.871'
>>> bulletin.bid
4.1823
>>> bulletin.ask
4.1829
```

It's also possible to process the information as a dictionary:

```
>>> bulletin.as_dict
{
  "datetime": "2020-01-20 13:09:02.871",
  "bid": 4.1823,
  "ask": 4.1829,
  "bulletin_type": "close"
}
```

Or as a fixed width table for pretty printing:

```
>>> print(bulletin.display())
+-----+-----+
| datetime | 2020-01-20 13:09:02.871 |
| bid      | 4.1823                  |
| ask      | 4.1829                  |
| bulletin_type | close                  |
+-----+-----+
```

2.2 Historical Ptax rates for a requested period

```
>>> from pyptax import ptax
>>> historical_bulletin = ptax.historical('2020-01-01', '2020-01-05')
>>> historical_bulletin
HistoricalBulletin(
  start_date="2020-01-01",
  end_date="2020-01-03",
  bulletins=[
    Bulletin("2020-01-02 13:11:10.762", 4.0207, 4.0213, "close"),
    Bulletin("2020-01-03 13:06:22.606", 4.0516, 4.0522, "close"),
  ],
)
```

The `ptax.historical` returns an instance of `HistoricalBulletin`:

```
>>> historical_bulletin.start_date
"2020-01-01"
>>> historical_bulletin.end_date
"2020-01-03"
>>> historical_bulletin.bulletins
[
  Bulletin("2020-01-02 13:11:10.762", 4.0207, 4.0213, "close"),
  Bulletin("2020-01-03 13:06:22.606", 4.0516, 4.0522, "close"),
]
```

As a dictionary:

```
>>> historical_bulletin.as_dict
{
  "start_date": "2020-01-01",
  "end_date": "2020-01-03",
  "bulletins": [
    {
      "datetime": "2020-01-02 13:11:10.762",
      "bid": 4.0207,
      "ask": 4.0213,
      "bulletin_type": "close"
    },
    {
      "datetime": "2020-01-03 13:06:22.606",
      "bid": 4.0516,
      "ask": 4.0522,
      "bulletin_type": "close"
    },
  ],
}
```

Or as a fixed width table:

```
>>> print(historical_bulletin.display())
+-----+-----+-----+-----+
| datetime           | bid | ask | bulletin_type |
+-----+-----+-----+-----+
| 2020-01-02 13:11:10.762 | 4.0207 | 4.0213 | close         |
| 2020-01-03 13:06:22.606 | 4.0516 | 4.0522 | close         |
+-----+-----+-----+-----+
```

2.3 Intermediary Ptax rates for a requested date

```
>>> from pyptax import ptax
>>> intermediary = ptax.intermediary('2020-01-02')
>>> intermediary
IntermediaryBulletin(
  date='2020-01-02',
  bulletins=[
    Bulletin(
      datetime='2020-01-02 10:08:18.114',
      bid=4.0101,
      ask=4.0107,
      bulletin_type='open'
    ),
    Bulletin(
      datetime='2020-01-02 11:03:40.704',
      bid=4.0118,
      ask=4.0124,
      bulletin_type='intermediary'
    ),
    Bulletin(
      datetime='2020-01-02 12:10:55.168',
      bid=4.0302,
      ask=4.0308,
      bulletin_type='intermediary'
    ),
    Bulletin(
      datetime='2020-01-02 13:11:10.756',
      bid=4.0305,
      ask=4.0311,
      bulletin_type='intermediary'
    ),
    Bulletin(
      datetime='2020-01-02 13:11:10.762',
      bid=4.0207,
      ask=4.0213,
      bulletin_type='close'
    )
  ]
)
```

The `ptax.intermediary` returns an instance of `IntermediaryBulletin`:

```
>>> intermediary.date
"2020-01-02"
>>> intermediary.bulletins
[
  Bulletin("2020-01-02 10:08:18.114", 4.0101, 4.0107, "open"),
  Bulletin("2020-01-02 11:03:40.704", 4.0118, 4.0124, "intermediary"),
  Bulletin("2020-01-02 12:10:55.168", 4.0302, 4.0308, "intermediary"),
  Bulletin("2020-01-02 13:11:10.756", 4.0305, 4.0311, "intermediary"),
  Bulletin("2020-01-02 13:11:10.762", 4.0207, 4.0213, "close"),
]
```

As a dictionary:

```
>>> intermediary.as_dict
{
  'date': '2020-01-02',
  'bulletins': [
    {
      'datetime': '2020-01-02 10:08:18.114',
      'bid': 4.0101,
      'ask': 4.0107,
      'bulletin_type': 'open'
    },
    {
      'datetime': '2020-01-02 11:03:40.704',
      'bid': 4.0118,
      'ask': 4.0124,
      'bulletin_type': 'intermediary'
    },
    {
      'datetime': '2020-01-02 12:10:55.168',
      'bid': 4.0302,
      'ask': 4.0308,
      'bulletin_type': 'intermediary'
    },
    {
      'datetime': '2020-01-02 13:11:10.756',
      'bid': 4.0305,
      'ask': 4.0311,
      'bulletin_type': 'intermediary'
    },
    {
      'datetime': '2020-01-02 13:11:10.762',
      'bid': 4.0207,
      'ask': 4.0213,
      'bulletin_type': 'close'
    }
  ]
}
```

Or as a fixed width table:

```
>>> print(intermediary.display())
+-----+-----+-----+-----+
| datetime           | bid | ask | bulletin_type |
+-----+-----+-----+-----+
| 2020-01-02 10:08:18.114 | 4.0101 | 4.0107 | open          |
| 2020-01-02 11:03:40.704 | 4.0118 | 4.0124 | intermediary  |
| 2020-01-02 12:10:55.168 | 4.0302 | 4.0308 | intermediary  |
| 2020-01-02 13:11:10.756 | 4.0305 | 4.0311 | intermediary  |
| 2020-01-02 13:11:10.762 | 4.0207 | 4.0213 | close         |
+-----+-----+-----+-----+
```

COMMAND LINE INTERFACE

After installing the package, the `pyptax` command becomes available:

```
$ pyptax

/$$$$$$$          /$$$$$$$ /$$
| $$__ $$          | $$__ $$ | $$
| $$ \ $$ /$$ /$$ | $$ \ $$ /$$$$$ /$$$$$ /$$ /$$
| $$$$$$/ | $$ | $$ | $$$$$$/ |__ $$ /  |____ $$ | $$ /$$/
| $$$$ / | $$ | $$ | $$$$ / | $$ /$$$$$ \ $$$$ /
| $$      | $$ | $$ | $$      | $$ /$$ /$$_ $$ >$$ $$
| $$      | $$$$$$ | $$      | $$$$ / | $$$$$$ /$$/\ $$
|__ /      \_____ $$ |__ /      \___/ \_____/ |__ / \___/
              /$$ | $$
              | $$$$$$/
              \_____/

Usage: pyptax [OPTIONS] COMMAND [ARGS]...

PyPtax Command Line Interface

PyPtax is a Python library to retrieve information on Ptax rates.

Options:
  -v, --version
  --help          Show this message and exit.

Commands:
  close  Provides bid and ask rates for the requested date.
  historical  Provides bid and ask rates for the requested time period.
```

`pyptax.cli.close(*args, **kwargs)`
Provide bid and ask rates for the requested date.

Options:

-d, --date YYYY-MM-DD [required]
--help Show this message and exit.

Examples:

```
$ pyptax close --date 2020-01-02
+-----+-----+
| datetime | 2020-01-02 13:11:10.762 |
| bid      | 4.0207                  |
```

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ask	4.0213	
+-----+	+-----+	+-----+

`pyptax.cli.historical(*args, **kwargs)`

Provide bid and ask rates for the requested time period.

Options:

-sd, --start_date YYYY-MM-DD [required]

-ed, --end_date YYYY-MM-DD [required]

--help Show this message and exit.

Examples:

```
$ pyptax historical --start_date 2020-01-02 --end_date 2020-01-10
```

datetime	bid	ask	bulletin_type
2020-01-02 13:11:10.762	4.0207	4.0213	close
2020-01-03 13:06:22.606	4.0516	4.0522	close
2020-01-06 13:03:22.271	4.0548	4.0554	close
2020-01-07 13:06:14.601	4.0835	4.0841	close
2020-01-08 13:03:56.075	4.0666	4.0672	close
2020-01-09 13:03:52.663	4.0738	4.0744	close
2020-01-10 13:10:19.927	4.0739	4.0745	close

`pyptax.cli.intermediary(*args, **kwargs)`

Provide intermediary bulletins of ptax rates for the requested date.

Options:

-d, --date YYYY-MM-DD [required]

--help Show this message and exit.

Examples:

```
$ pyptax intermediary --date 2020-01-02
```

datetime	bid	ask	bulletin_type
2020-01-02 10:08:18.114	4.0101	4.0107	open
2020-01-02 11:03:40.704	4.0118	4.0124	intermediary
2020-01-02 12:10:55.168	4.0302	4.0308	intermediary
2020-01-02 13:11:10.756	4.0305	4.0311	intermediary
2020-01-02 13:11:10.762	4.0207	4.0213	close

PYPTAX PACKAGE: API DOCUMENTATION

This part of the documentation covers the interfaces of PyPtax.

`pyptax.ptax.close(date: str) → pyptax.models.Bulletin`

Retrieve closing Ptax rates on a certain date.

Parameters **date** – Year, month and day of the date to be searched. Format - “YYYY-MM-DD”

Returns A Bulletin object with datetime, bid and ask attributes

Return type Bulletin

Raises **DateFormatError** – If fails to parse the informed date

Examples

```
>>> bulletin = close("2020-01-20")
>>> bulletin
Bulletin(
  datetime="2020-01-20 13:09:02.871",
  bid=4.1823,
  sk=4.1829,
  bulletin_type="close"
)
>>> bulletin.bid
4.1823
>>> bulletin.ask
4.1829
>>> bulletin.as_dict
{
  "datetime": "2020-01-20 13:09:02.871",
  "bid": 4.1823,
  "ask": 4.1829,
  "bulletin_type": "close"
}
```

`pyptax.ptax.historical(start_date: str, end_date: str) → pyptax.models.HistoricalBulletin`

Retrieve historical closing Ptax rates for the requested time period.

Parameters

- **start_date** – Beginning of the time period to be searched. Format - ‘YYYY-MM-DD’
- **end_date** – End of the time period to be searched. Format - ‘YYYY-MM-DD’

Returns A HistoricalBulletin object with start_date, end_date and bulletins with a list of Bulletins.

Return type HistoricalBulletin

Raises

- **DateFormatError** – If fails to parse the informed date
- **ClientError** – If Ptax Service response returns an error
- **UnavailableDataError** – If receives an empty list from Ptax Service

Examples

```
>>> historical_bulletin = historical("2020-01-02", "2020-01-03")
>>> historical_bulletin
HistoricalBulletin(
  start_date="2020-01-02",
  end_date="2020-01-04",
  bulletins=[
    Bulletin(
      datetime="2020-01-02 13:11:10.762",
      bid=4.0207,
      ask=4.0213,
      bulletin_type="close"
    ),
    Bulletin(
      datetime="2020-01-03 13:06:22.606",
      bid=4.0516,
      ask=4.0522,
      bulletin_type="close"
    ),
  ],
)
>>> historical_bulletin.as_dict
{
  "start_date": "2020-01-02",
  "end_date": "2020-01-04",
  "bulletins": [
    {
      "datetime": "2020-01-02 13:11:10.762",
      "bid": 4.0207,
      "ask": 4.0213,
      "bulletin_type": "close"
    },
    {
      "datetime": "2020-01-03 13:06:22.606",
      "bid": 4.0516,
      "ask": 4.0522,
      "bulletin_type": "close"
    },
  ],
}
```

`pyptax.ptax.intermediary` (*date: str*)

Retrieve intermediary bulletins of Ptax rates for the requested date.

Parameters **date** – Date to be searched. Format - ‘YYYY-MM-DD’

Returns A IntermediaryBulletin object with date and bulletins with a list of Bulletins.

Return type IntermediaryBulletin

Raises

- **DateFormatError** – If fails to parse the informed date
- **ClientError** – If Ptax Service response returns an error
- **UnavailableDataError** – If receives an empty list from Ptax Service

Examples

```
>>> intermediary("2020-01-02")
IntermediaryBulletin(
  date='2020-01-02',
  bulletins=[
    Bulletin(
      datetime='2020-01-02 10:08:18.114',
      bid=4.0101,
      ask=4.0107,
      bulletin_type='open'
    ),
    Bulletin(
      datetime='2020-01-02 11:03:40.704',
      bid=4.0118,
      ask=4.0124,
      bulletin_type='intermediary'
    ),
    Bulletin(
      datetime='2020-01-02 12:10:55.168',
      bid=4.0302,
      ask=4.0308,
      bulletin_type='intermediary'
    ),
    Bulletin(
      datetime='2020-01-02 13:11:10.756',
      bid=4.0305,
      ask=4.0311,
      bulletin_type='intermediary'
    ),
    Bulletin(
      datetime='2020-01-02 13:11:10.762',
      bid=4.0207,
      ask=4.0213,
      bulletin_type='close'
    )
  ]
)
```


CONTRIBUTING

Contributions are always welcome and appreciated. You can contribute with pull requests, bug reports, features requests, and feedback.

5.1 Development installation

- Fork PyPtax to your GitHub account
- Clone your fork and create a branch for the code you want to add
- Create a new virtualenv and install the package in development mode

```
$ git clone git@github.com:your_user_name/pyptax.git
$ cd pyptax
$ git checkout -b your_contribution_branch
$ python -m venv .venv
$ source .venv/bin/activate
(.venv) $ python -m pip install -U pip setuptools
(.venv) $ pip install -U -e .[dev]
```

5.2 Testing

PyPtax uses tox for testing and development. With tox installed, just execute:

```
$ tox
```

It'll run the tests in all supported Python versions and pre-commit checks.

You can run against a specific available version, by executing:

```
$ tox -e py38
```


RELEASE NOTES

6.1 Version 0.5.0

- Add resource to provide historical bid and ask rates for a requested time period.
- Add resource to provide intermediary rates for a requested date.
- Rename *CloseReport* to *Bulletin* and define its type on the internal attribute *bulletin_type*.
- Remove string conversion on bid and ask rates retrieved.
- Fix development installation docs.

6.2 Version 0.4.0

- Add Command line interface.
- Improve exceptions handling.
 - Add `ClientException` to deal with response error.
 - Add `UnavailableDataError` to handle empty data returned.
- Add `Close.display` method to show data as a fixed width table for pretty printing.

6.3 Version 0.3.0

- `ptax.close` requires date in the format YYYY-MM-DD
- Requires Python 3.7 or later
- Add documentation to readthedocs <https://pyptax.readthedocs.io/>.

6.4 Version 0.2.0

- `ptax.close` returns an instance of the `CloseReport` model instead of a dict.

Before:

```
>>> from pyptax import ptax
>>> ptax.close('01-20-2020')
>>> {'datetime': '2020-01-20 13:09:02.871', 'bid': '4.1823', 'ask': '4.1829'}
```

After:

```
>>> from pyptax import ptax
>>> ptax.close('01-20-2020')
>>> CloseReport(datetime='2020-01-20 13:09:02.871', bid='4.1823', ask='4.1829')
>>> ptax.close('01-20-2020').as_dict
>>> {'datetime': '2020-01-20 13:09:02.871', 'bid': '4.1823', 'ask': '4.1829'}
```

- Create a client to deal with service request to add support for new features.
- Add PyPI publish commands.
- Fix typo in documentation

6.5 Version 0.1.0

- First public release.

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