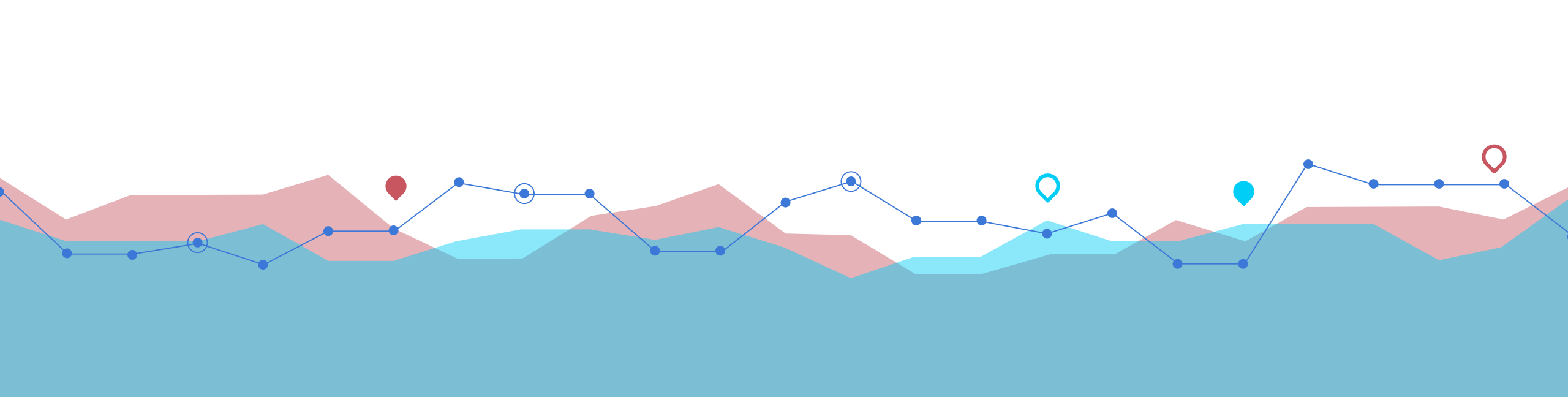


# Parte 4

Softwares de apoio

Introdução à automação (bots)



# Softwares de apoio

# Softwares de apoio - Jamie Dimon

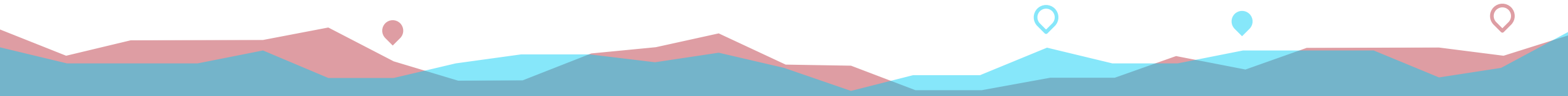
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# 14 de setembro

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- China vai regulamentar exchanges
- Fechamento exchanges(BTCCChina)
- Nessa semana queda de 33%



# Preço

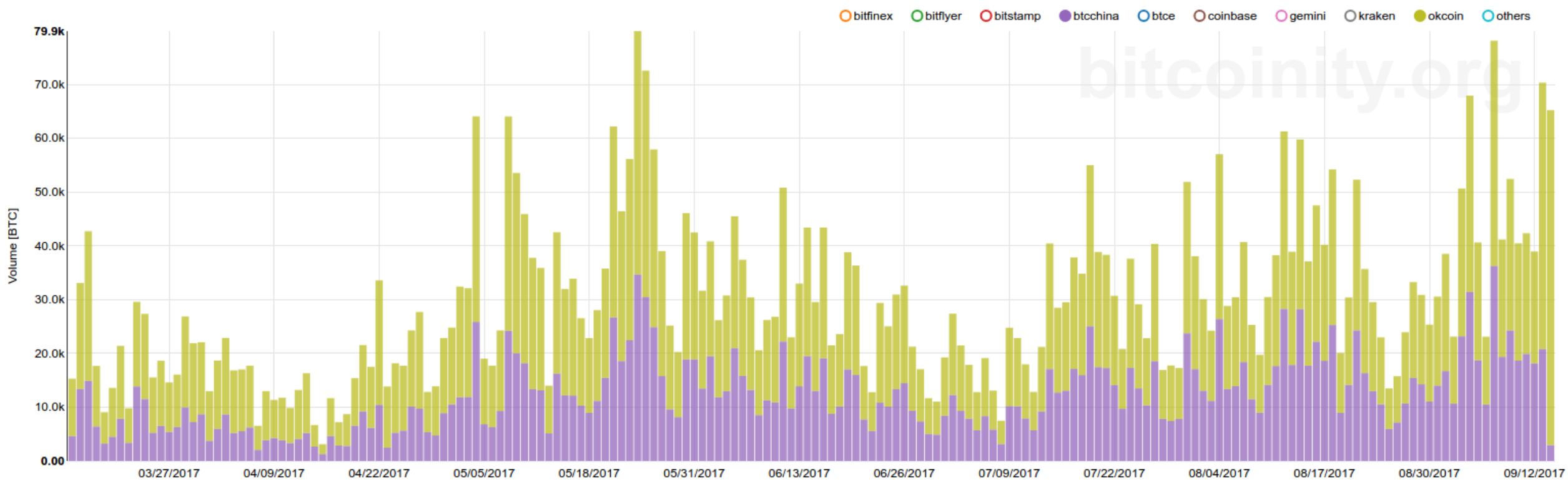
Bitcoin / Dollar, D, BITFINEX

Vol (20)



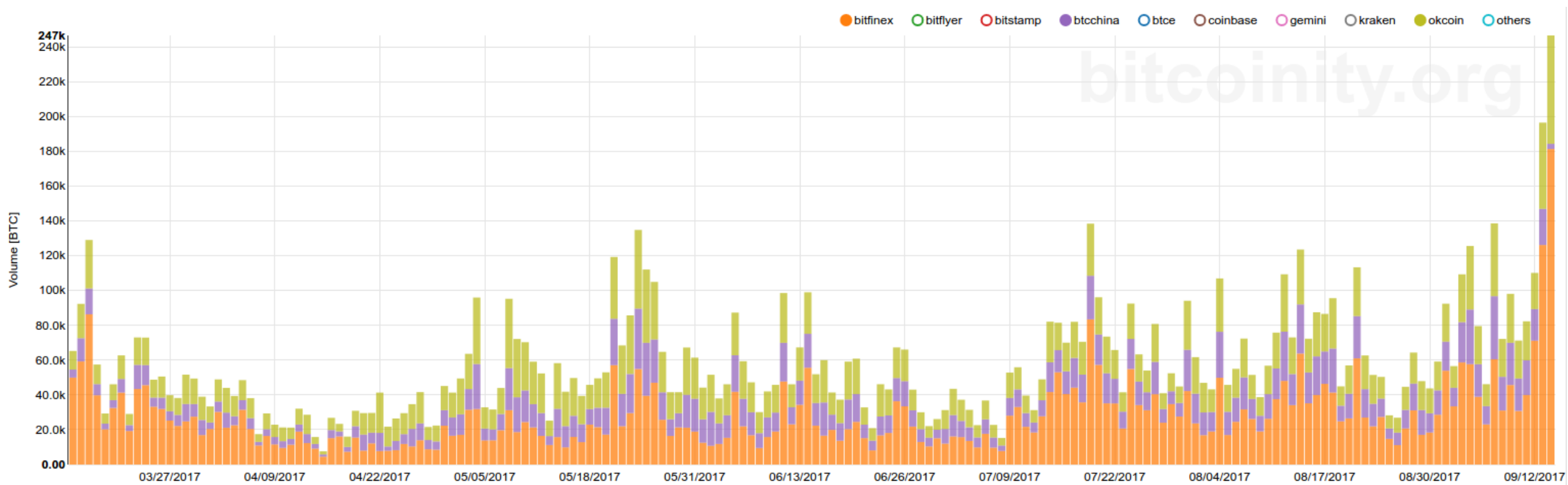
# Volume

---



# Volume

---



# Preço depois

Bitcoin / Dollar, D, BITFINEX

Vol (20)

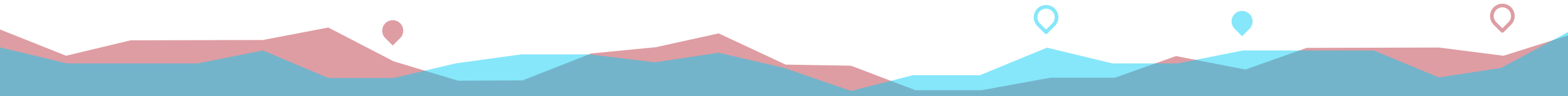




# Bitcoin vs Bitcoin Cash

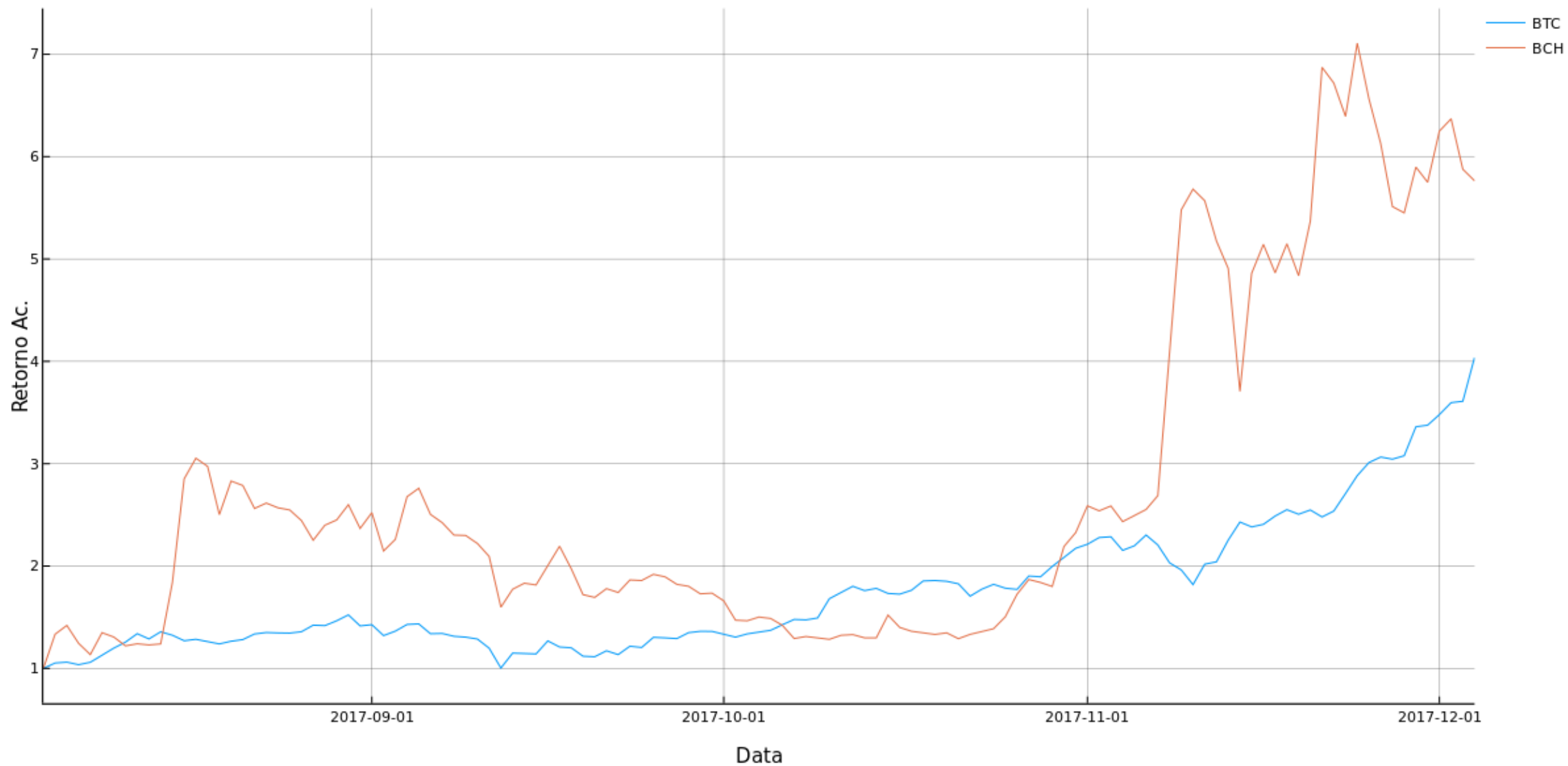
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- Tamanho do bloco
- Custo transaccional
- Nov 2017
  - Bitcoin vs Bitcoin Cash
  - Bitcoin Cash passou Ether

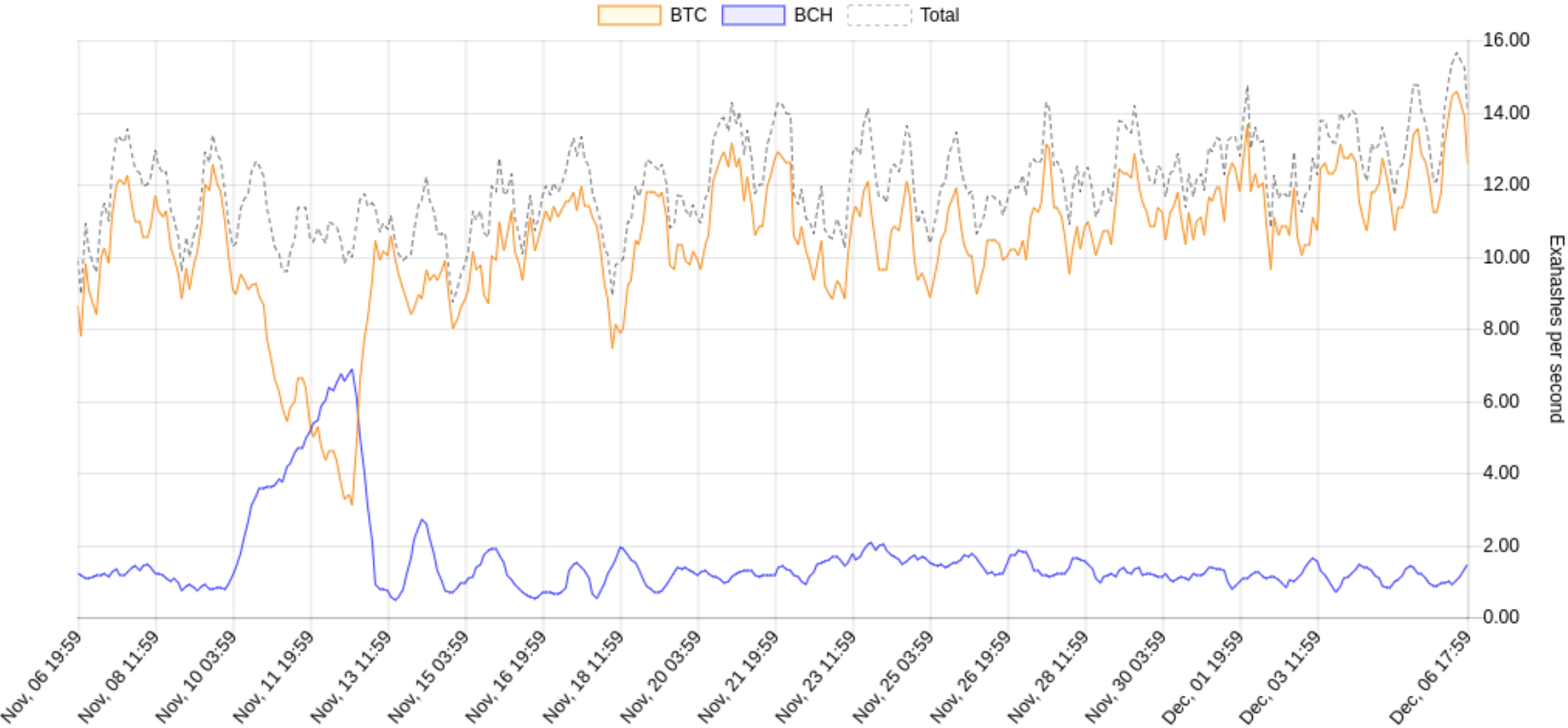


# Bitcoin vs Bitcoin Cash

---

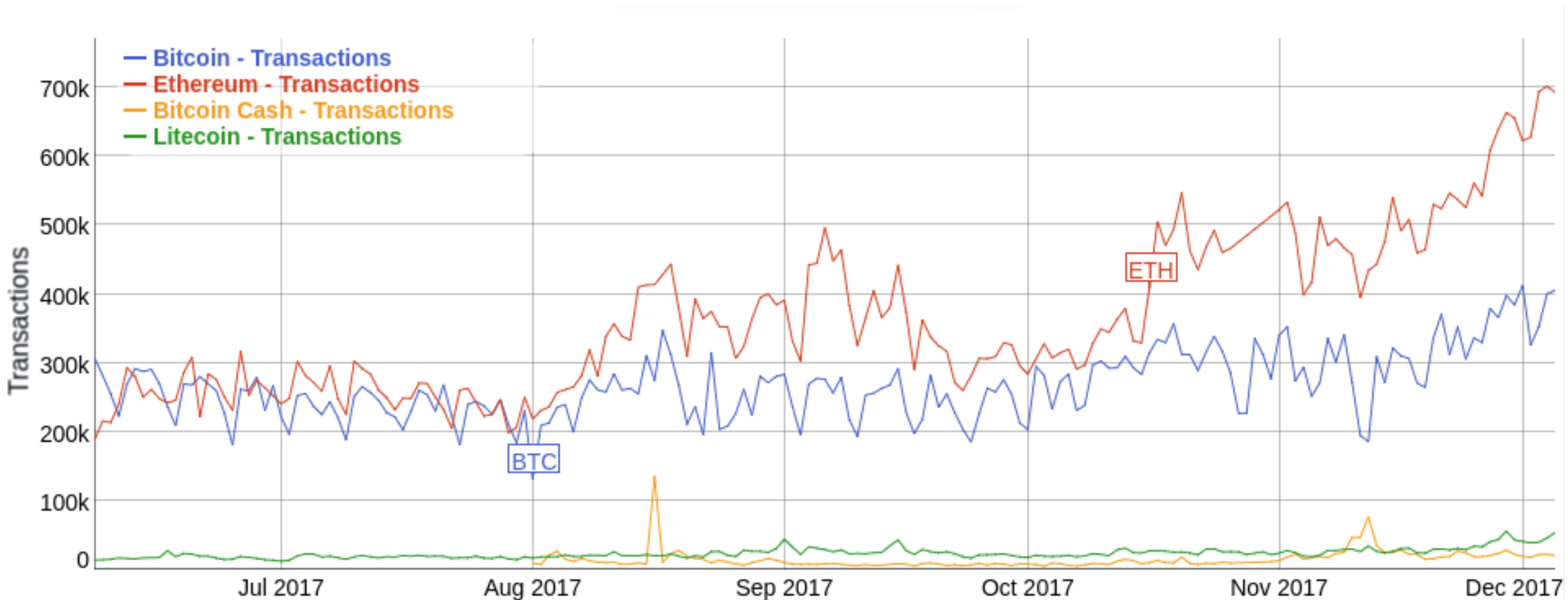


# Bitcoin vs Bitcoin Cash



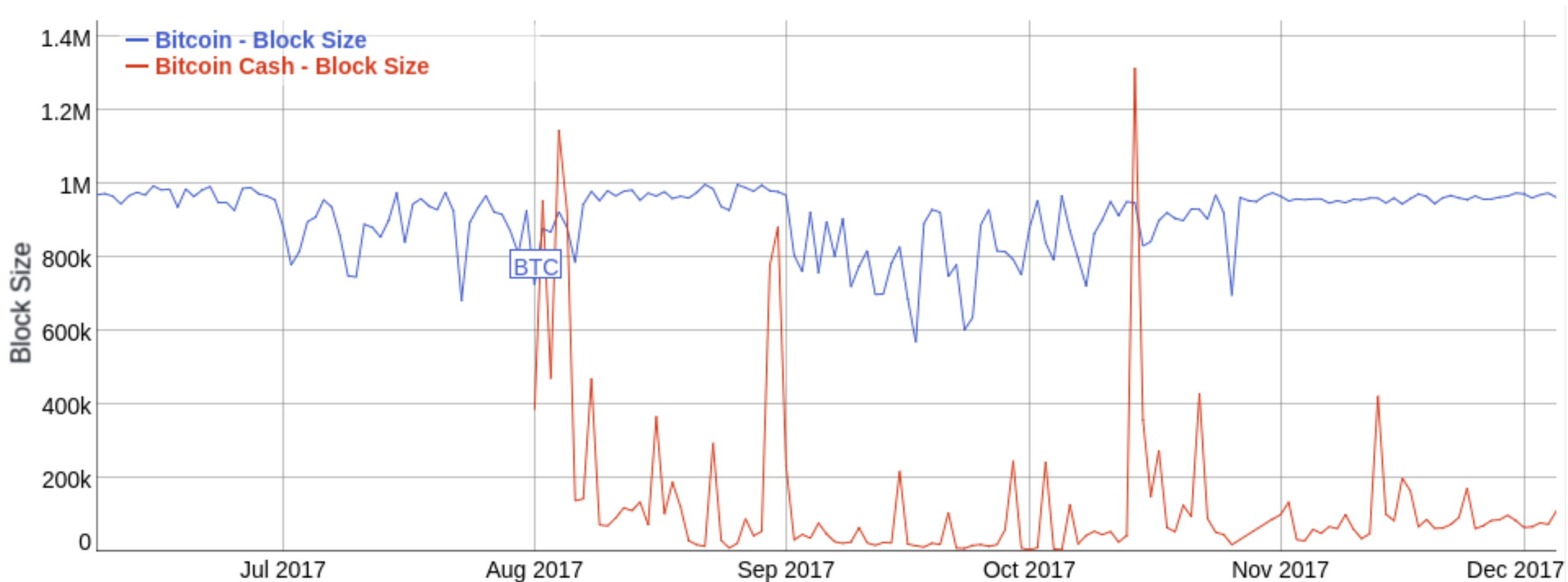
# BTC vs BCH - Transações

---



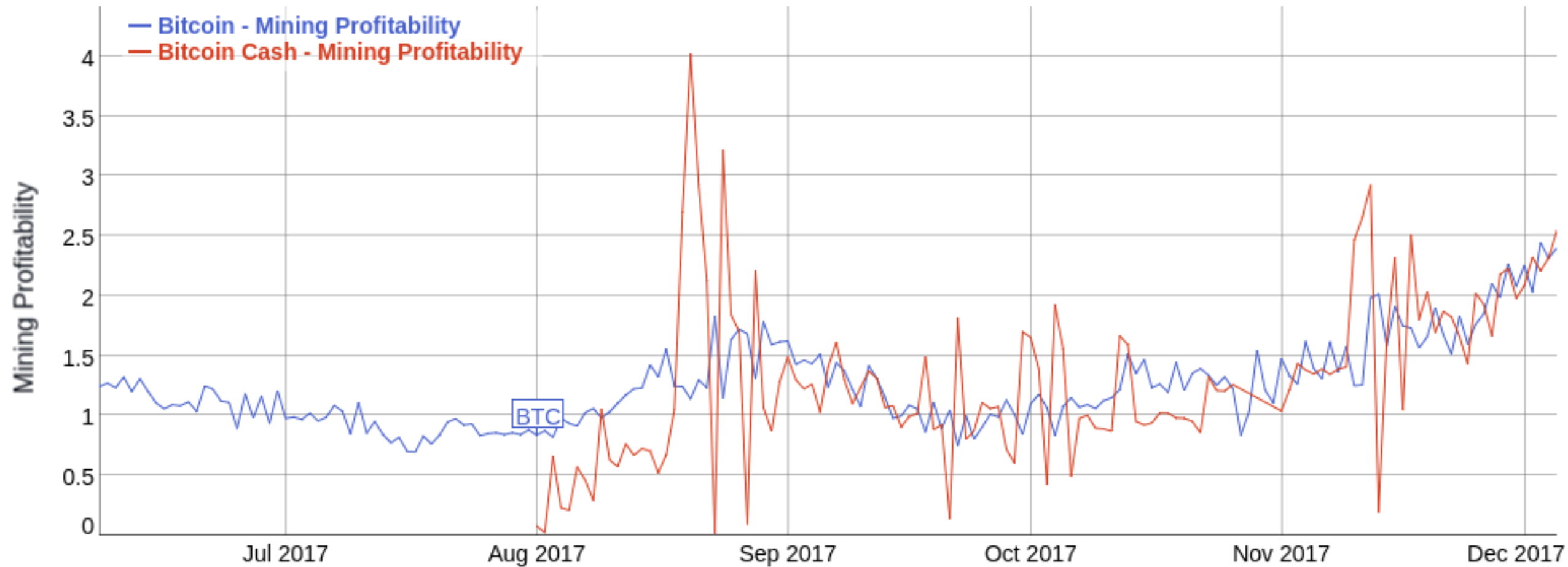
# BTC vs BCH - Tamanho Bloco

---



# BTC vs BCH - Mineração

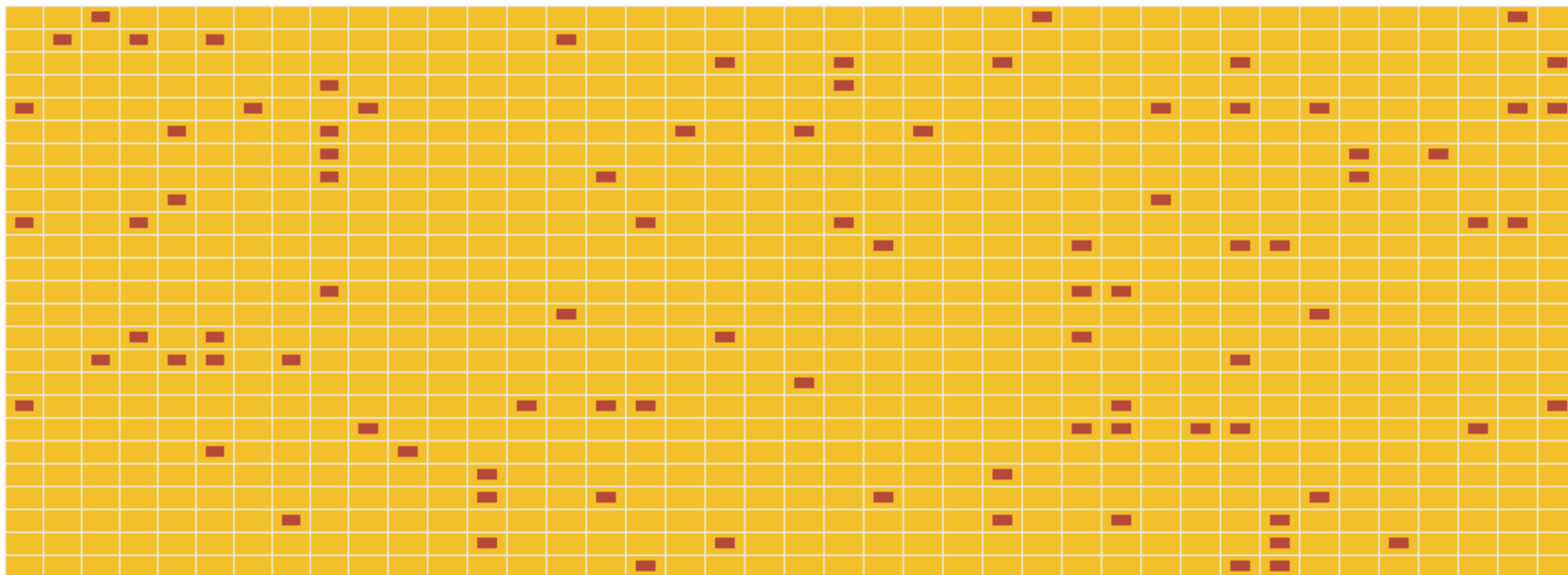
---



# Segwit2x Bug

---

coin.dance



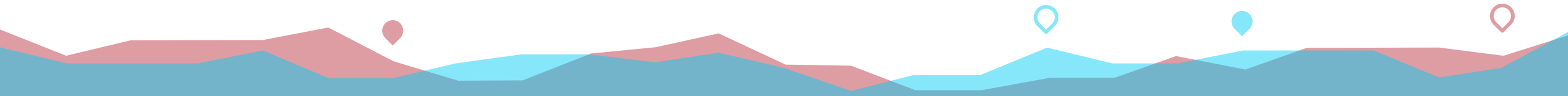
Emergent Consensus: / 1000   Core / Non-EC: 1000 / 1000   SegWit2x: 91 / 1000   Other: 0 / 1000

# Softwares de Apoio - Sites

---

Dados sobre as criptomoedas

- [coin.dance](https://coin.dance)
- [cryptocompare.com](https://cryptocompare.com)
- [coinmarketcap.com](https://coinmarketcap.com)
- [coinmarketcal.com](https://coinmarketcal.com)

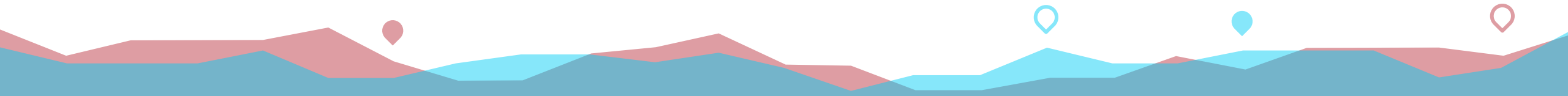




# Softwares de Apoio - Sites

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- [bitinfocharts.com](https://bitinfocharts.com) (Correlation, Transactions, Lifespan criptos,...)
- [data.bitcoinity.org](https://data.bitcoinity.org)
- [cryptocoincharts.info](https://cryptocoincharts.info)
- [cryptocurrencychart.com](https://cryptocurrencychart.com)
- [Fork.io](https://fork.io) (Mineração)

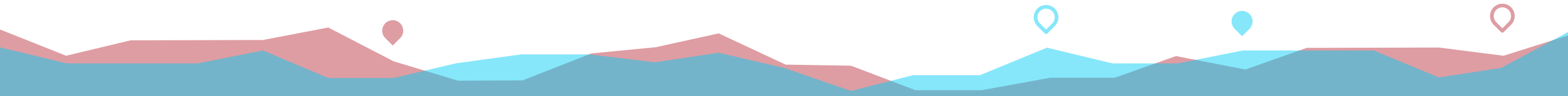


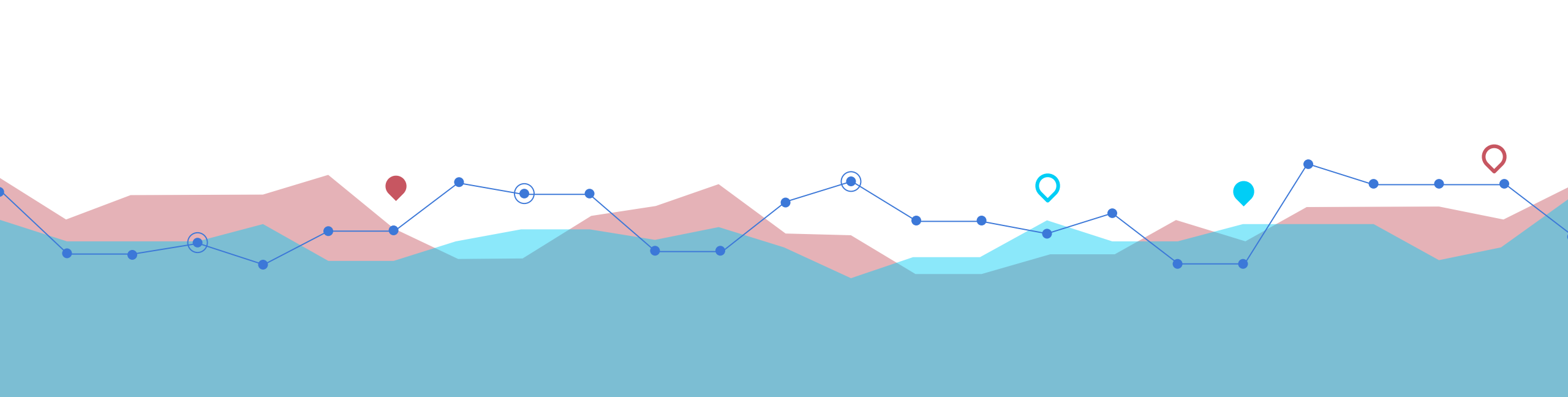
# Softwares de Apoio - Sites

---

## Análise Técnica

- [tradingview.com](https://tradingview.com)
- [cryptowat.ch](https://cryptowat.ch)



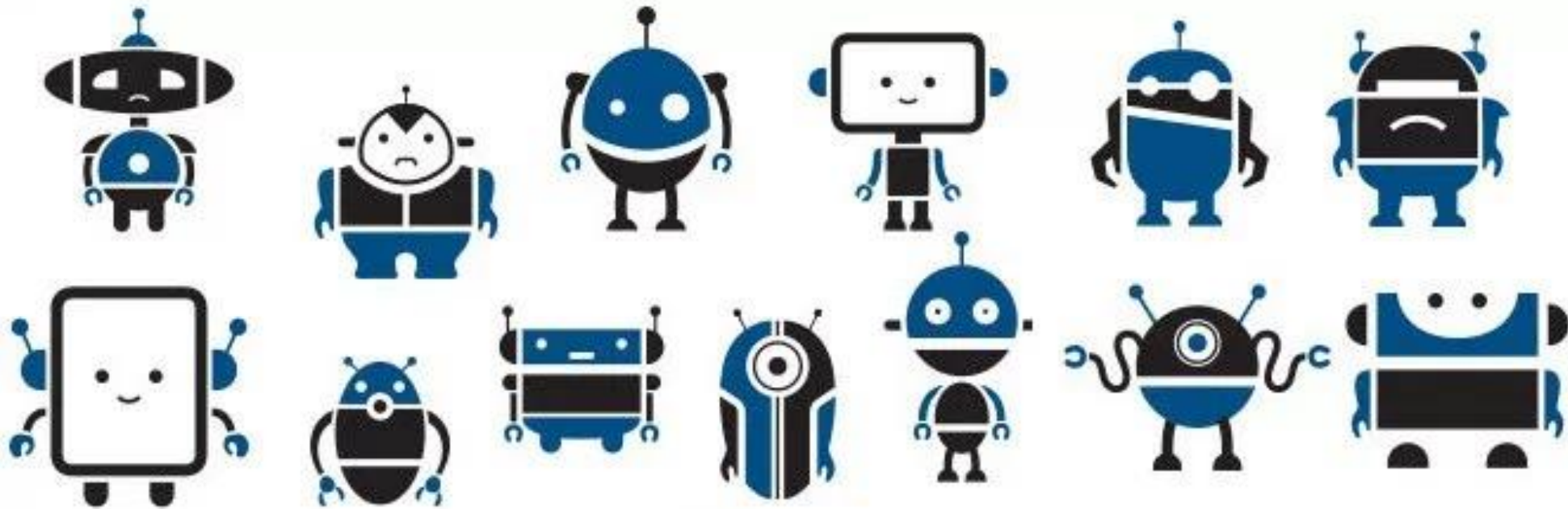


# Introdução à automação (bots)

# O que são bots?

---

Seu investimento no piloto automático



# Vantagens dos Bots

---

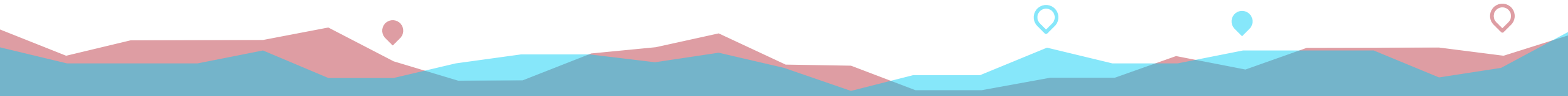
- Sem emoções
- Latência
- Processamento



# Bots para criptomoedas

---

- 24 horas por dia 7 dias por semana
- APIs e tecnologia
- Custos transacionais
- Arbitragem



# Exemplos de estratégias

Bitcoin / Dollar, D, BITFINEX

MA (12, close)

MA (26, close)



# Exemplos de estratégias

Bitcoin / Dollar, D, BITFINEX

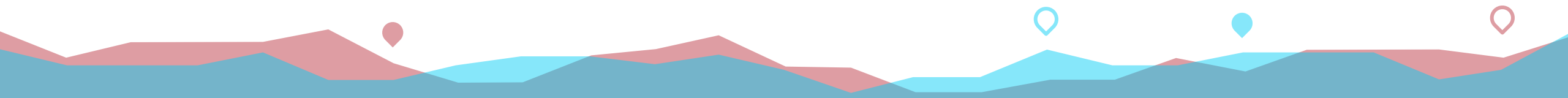




# Como usar bots?

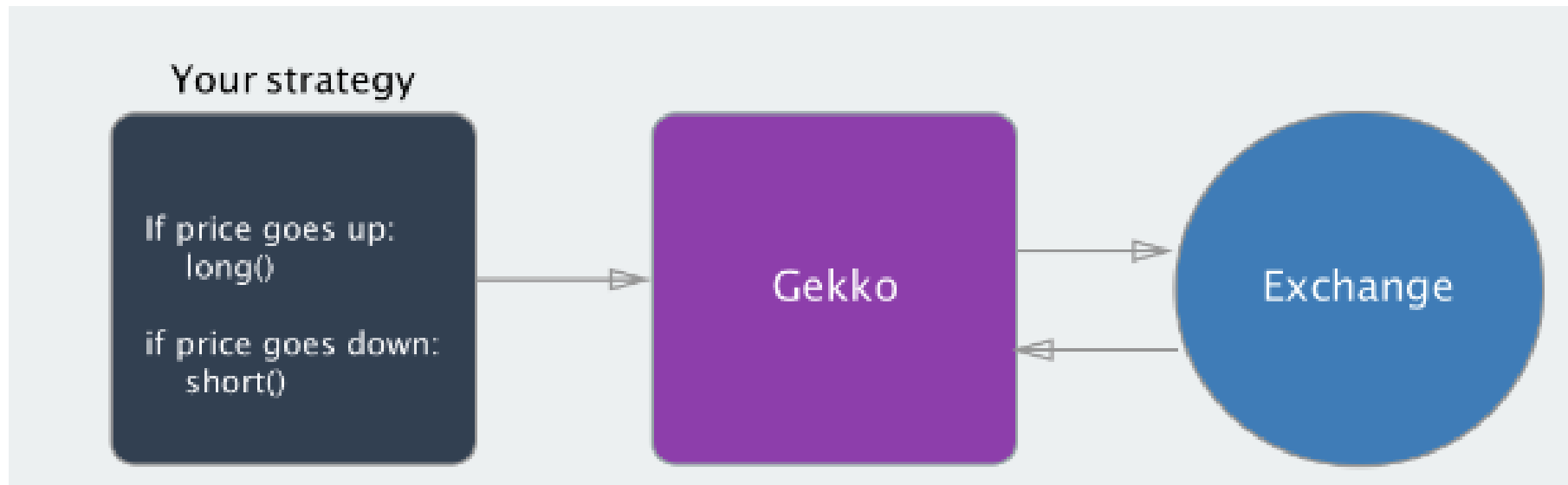
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- API corretora
- Frameworks
  - Interface
  - Código



# Frameworks

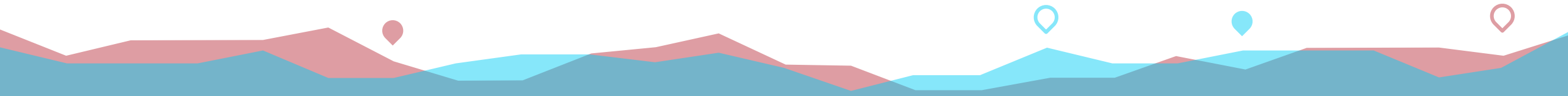
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# Principais Frameworks

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- Haabot ([www.haasonline.com](http://www.haasonline.com))
- Cryptotrader ([cryptotrader.org](http://cryptotrader.org))
- Zenbot ([github.com/carlos8f/zenbot](https://github.com/carlos8f/zenbot))
- Gekko ([github.com/askmike/gekko](https://github.com/askmike/gekko))



# Funcionalidades

---

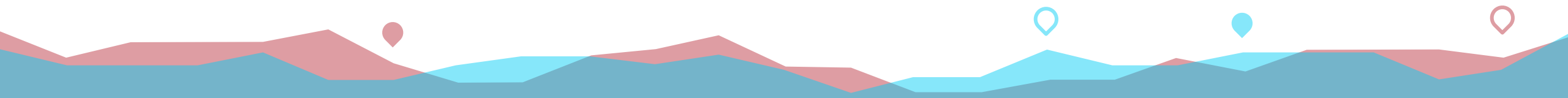
- Backtesting
- "Paper" trading



# Link Corretora

---

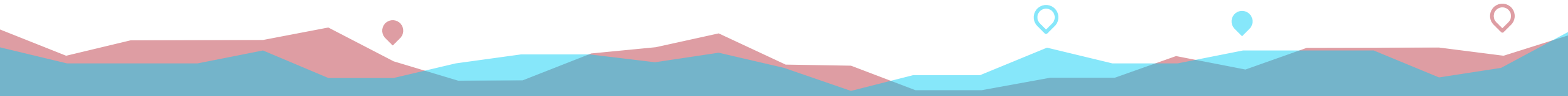
- API key
- Permissões
- API key secret



# Haasbot

---

- Facilidade de uso
- Estratégias clássicas
- Travas de segurança
- Preço(a partir de 0.06B/3month )
- Principais corretoras(Poloniex, Bitfinex, Bittrex...)



# Haasbot

---

## Your local trade server

The local trade server is a small application that runs in the background and trades for you and keeps your trade platform updated

## Your personal trade platform

This platform will give you HTML based interface.

With this interface you can see how the market is doing, you can edit your trade bots and you can place orders directly at the exchange website

## Your trade bot

### Safeties

With safeties, you can make sure your coins remain safe in case of a big price drop

### Indicators

Setup your own trading strategy using technical market indicators and crypto adjusted market indicators

### Insurance

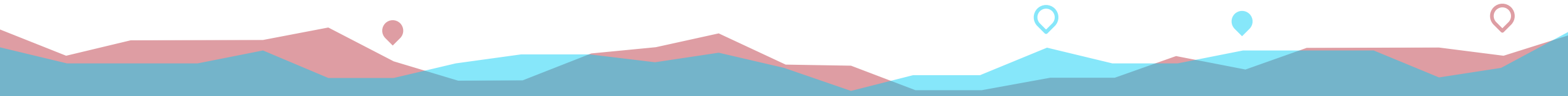
Insurance for your trades. These ensure that you will overcome the fee costs or other special actions and/or conditions

## Trade signal to the exchange website

# Cryptotrader

---

- Facilidade de uso
- API limitada(TaLib)
- Planos( 0.003 B /month até 0.052 B /month)
- Preço do Bot (0.013 B /month)
- Principais corretoras(Poloniex, Bitfinex, Bittrex...)

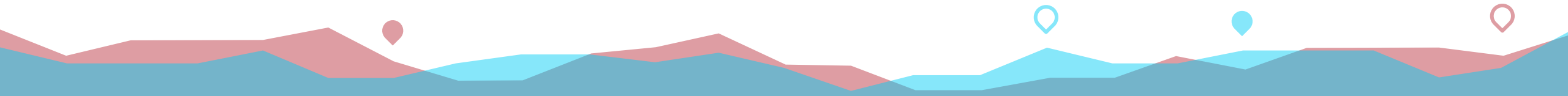




# Gekko

---

- 100% open source e grátis
- Backtest e paper trade
- Servidor local
- JavaScript (node.js)
- Robos demo



# Gekko UI

- Home
- Live Gekkos
- Backtest
- Local data
- Config
- Documentation

## Backtest

### Select a dataset

EXCHANGE	CURRENCY	ASSET	FROM	TO	DURATION
<input checked="" type="radio"/> bitfinex	USD	BTC	2017-07-11 20:40	2017-07-14 14:53	2 days, 18 hours, 13 minutes

[Adjust range](#)

### Strategy

Strategy:

**RSI** ▼

Candle Size

1 **minutes** ▼

Warmup period (in 1 minute candles):

10

### Parameters

RSI Parameters:

```

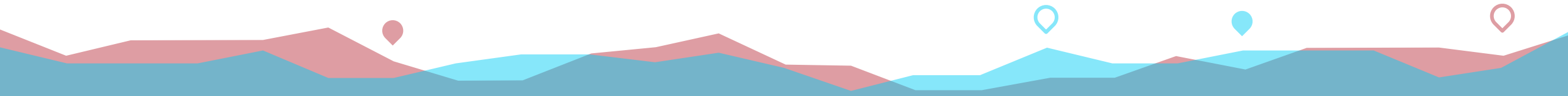
interval = 14

[thresholds]
low = 30
high = 70
persistence = 1
  
```

# Zenbot

---

- Similar ao Gekko( grátis, javascript,...)
- Interação através da linha de comando
- Voltado para performance
- Usuário mais avançado



# Zenbot

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- Zenbot is NOT a sure-fire profit machine. Use it AT YOUR OWN RISK.
- Crypto-currency is still an experiment, and therefore so is Zenbot. Meaning, both may fail at any time.
- Running a bot, and trading in general requires careful study of the risks and parameters involved. A wrong setting can cause you a major loss.
- Never leave the bot un-monitored for long periods of time. Zenbot doesn't know when to stop, so be prepared to stop it if too much loss occurs.
- Often times the default trade parameters will underperform vs. a buy-hold strategy, so run some simulations and find the optimal parameters for your chosen exchange/pair before going "all-in".

# Comparação Frameworks

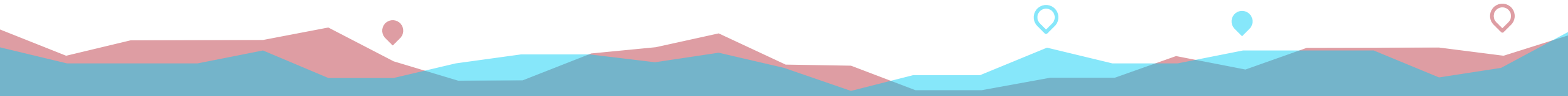
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Framework	Facilidade de uso	Preço	Segurança	Funcionalidades	Flexibilidade	Nível de programação	Linguagem
Cryptotrader	++	+	++	++	+	++	CoffeeScript
Haasbot	+++	+++	+++	+++	+++	+	C#
Zenbot	+	N/A	+	+	+++	+++	JavaScript
Gekko	+	N/A	+	+	+++	++++	JavaScript

# Corretoras Brasileiras

---

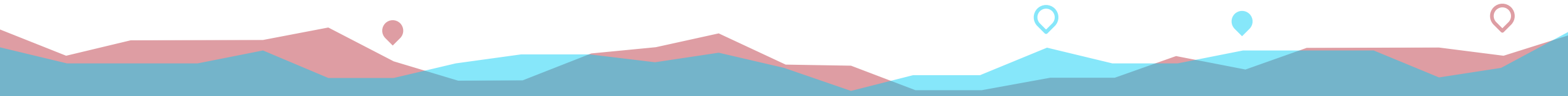
- FoxBit (blinktrade)
- MercadoBitcoin (HTTP)
- FlowBTC (WebSocket API)

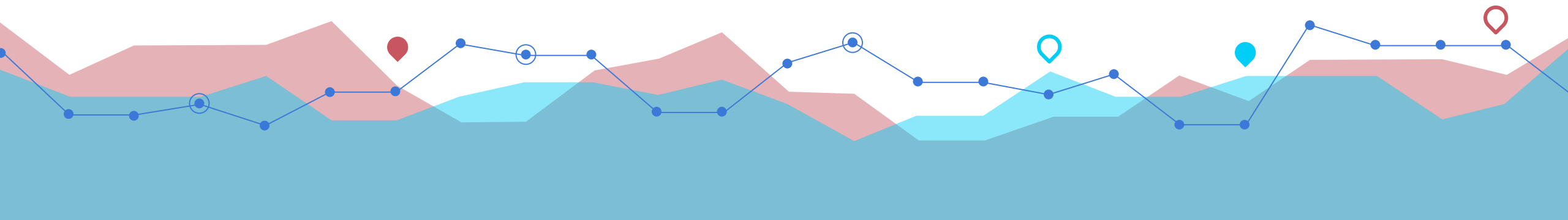


# Riscos Bots

---

- Cloud ou não
- Código
- Chave da API
- Bugs





Hands on

TradingView

Cryptotrader



# Links

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- Excel

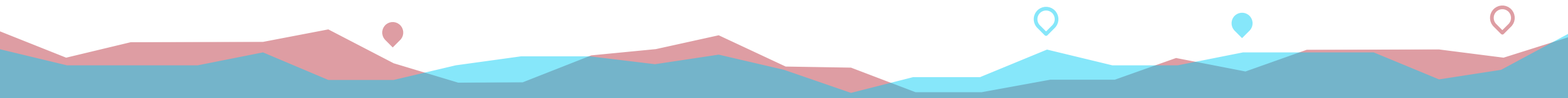
- [steemit.com/cryptocurrency/@tomshwom/excel-portfolio-how-to-get-live-prices-and-stats](https://steemit.com/cryptocurrency/@tomshwom/excel-portfolio-how-to-get-live-prices-and-stats)

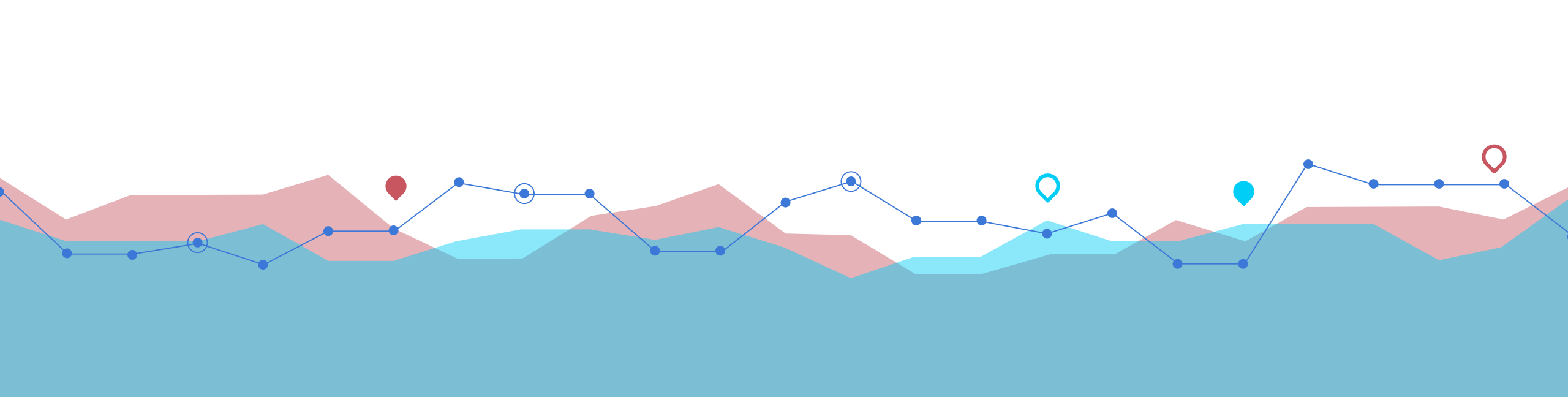
- Google Docs(Cryptofinance)

- [chrome.google.com/webstore/detail/cryptofinance/bhjnahcnhemcnnenhgbmmdapapblncn](https://chrome.google.com/webstore/detail/cryptofinance/bhjnahcnhemcnnenhgbmmdapapblncn)

- Cryptocompare Api

- [cryptocompare.com/api](https://cryptocompare.com/api)





Dúvidas?