

# Welcome to FinTech!

**FinTech**  
Lesson 1.1





# Class Objectives

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By the end of today's class, you will:



Get to know the instructional team as well as each other.



Become familiar with the course format and requirements for certification.



Review the course topics and agenda.



Be able to explain what FinTech is.



Review the completion and submission guidelines for the Unit 1 homework assignment.

# Expectations

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1. We are Professional hungry to learn new skills. “Stay hungry”!!!
2. Camera On and wear appropriate clothes
3. Mute your “mic” during class and turn it on when asking question. This eliminates unnecessary background noise. Feel free to have family members to know your classmates.
4. Attendance notification. See policy and notify both TA and Instructor
5. I encourage to actively participate, otherwise the computer will call your name randomly
6. Work on the activities during class because I will select a student randomly to present it with the group
7. Follow the HW policy.
8. Come prepare to office hours
9. Use the career services resources!!!!

*“There are naive questions, tedious questions, ill-phrased questions, questions put after inadequate self-criticism. But every question is a cry to understand the world. **There is no such thing as a dumb question.**”*

*Carl Sagan, The Demon-Haunted World: Science as a Candle in the Dark*



# Defining FinTech



# FINTECH

# The Financial Sector Today

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Why Big Banks Are Losing to Tech Giants Over Open Banking

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How Technology Is Impacting the Finance and Banking Sector

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Blockchain Technology Is Helping Small Businesses Create Their Legal Agreements

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*Worldwide Financial Services External and Internal IT Spending to Reach \$500 Billion in 2021, According to IDC Financial Insights*

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The Future of Banking Is Rapidly Becoming a Digital Domain. How Will Community Banks Respond to the Tide of Technology?

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Tech Firms Could Pose Major Threat to Banks

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Banks Unveil Network to Digitize Trade Finance

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Why Top Tech Talent May Be Coming to Finance

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*“Banks Are Technology Firms”*



# What Is FinTech?

The broader FinTech category can be segmented into four variants.

Origin	Technology	<b>Infrastructure providers</b> seeking to help financial institutions digitize and modernize their technology stacks. Examples: FNZ, Marqeta, Onfido	<b>Large technology ecosystems</b> using financial services to strengthen relationships with users. Examples: Apple, Ant Financial, Tencent
	Financial Services	<b>New entrants, start-ups, and attackers</b> seeking to enter financial services using new technologies. Examples: SoFi, TransferWise, LendingClub	<b>Incumbent financial institutions</b> making significant investments in technology to lift their game. Examples: Wells Fargo, Ping An
		Low (small scale)	High (large scale)
		Scale	



But what  
exactly *is*  
FinTech?





FinTech is the combination of finance and technology. More specifically, it describes a **financial services industry** that has been disrupted by **technological innovation** that competes with traditional **financial methods** and **improves activities and inefficiencies** in finance.



## **Activity:** FinTech Group Discussion

In this activity, you will reflect on what FinTech means to you.

(Instructions sent via Slack.)

**Suggested Time:**  
5 Minutes





**Time's Up!** Let's Review.

# Course Overview

# Curriculum Overview

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## **Intro to FinTech**

First, you'll learn about the fundamental priorities of investment banks, traders, insurance agencies, and other players in the financial industry. You will also learn about the command line and GitHub to prepare for future programming assignments.

## **Python and Financial Programming**

Next, you'll learn Python programming, focusing in depth on the core libraries relevant to finance work. You will use APIs like Quandl to add live financial data feeds to your software projects. You'll also use a variety of analytic tools to extract insights and create reports.

# Curriculum Overview

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## **Algorithms, Statistics, and Machine Learning**

You will learn a variety of core algorithms, models, and forecasting tools, including Monte Carlo simulations, risk-data aggregation, portfolio theory, and regression. You'll draw on this background as you apply machine learning concepts to financial challenges.

## **Advanced Topics: Big Data and Blockchain**

The course will end with deep coverage of the big data and blockchain toolchains. You will use Python to complete challenges that involve building and using these toolchains for financial and regulatory benefit.

# Curriculum Breakdown by Week

## **Unit 1: Intro to FinTech**

1. Intro to FinTech and Finance

## **Units 2–7: Python for Finance Deep Dive**

2. Python Basics  
3. Python and Pandas + Review Day  
4. Pandas + Review Day  
5. APIs  
6. Data Visualization  
7. SQL

## **Units 8–9: Project Work**

8. Project 1  
9. Project 1 continued

## **Units 10–15: Applied Machine Learning**

10. Time Series Analysis  
11. Classification  
12. Natural Language Processing  
13. AWS and Cloud ML  
14. Deep Learning and Robo Advisors  
15. Algorithmic Trading

## **Units 16–17: Project Work**

16. Project 2  
17. Project 2 continued

## **Units 18–22: Blockchain Deep Dive**

18. Intro to Blockchain  
19. Interacting with Blockchains in Python  
20. Intro to Solidity & Smart Contracts  
21. Advanced Solidity & Smart Contracts  
22. Blockchain Application Development

## **Units 23–24: Project Work**

23. Project 3  
24. Project 3 continued

## Core Program Modules

Python

Applied ML and AI

Blockchain / Cryptocurrency



# Curriculum at a Glance

**Week 1:** You will be introduced to the world of FinTech and discuss the current financial landscape.

Week 1



**Weeks 2–7:** You will learn the basics of Python and how to use additional libraries and tools such as Pandas, APIs, Plotly, and SQL databases, in the context of financial analysis.

Weeks  
2–7



**Weeks 8–9:** You are tasked with your first project.

Weeks  
8–9



**Weeks 10–15:** Companies are becoming more and more data-driven in their decision making. Therefore, through machine learning, you will need to learn how to not only interpret and create financial models, but also how to automate the execution of such models. Topics include algorithmic trading, robo-advisory, time series analysis, risk management, and Cloud ML technologies.

Weeks  
10–15



**Weeks 16–17:** You are tasked with your second project.

Weeks  
16–17



**Weeks 18–22:** With its benefits of security, speed, and decentralized peer-to-peer validation, blockchain technology has already become more efficient than traditional finance in the context of transactions and third-party validation. You will learn blockchain fundamentals, smart contracts using Solidity, and how to develop blockchain applications on the popular Ethereum blockchain network.

Weeks  
18–22



**Weeks 23–24:** You are tasked with your final project.

Weeks  
23–24

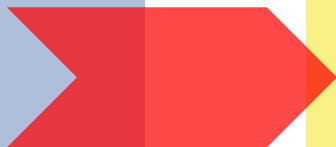


# Hard Skills + Core Knowledge = *Real Jobs*

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## Skills/Technologies Covered

Time Series Analysis  
Financial Ratios / Analysis  
Python Programming  
API Interactions  
Pandas  
NumPy / SciPy  
Pyfin  
Quant DSL  
SQL  
Monte Carlo Simulations  
Forecasting  
Modern Portfolio Theory  
Machine Learning  
Big Data  
Blockchain / Cryptocurrency



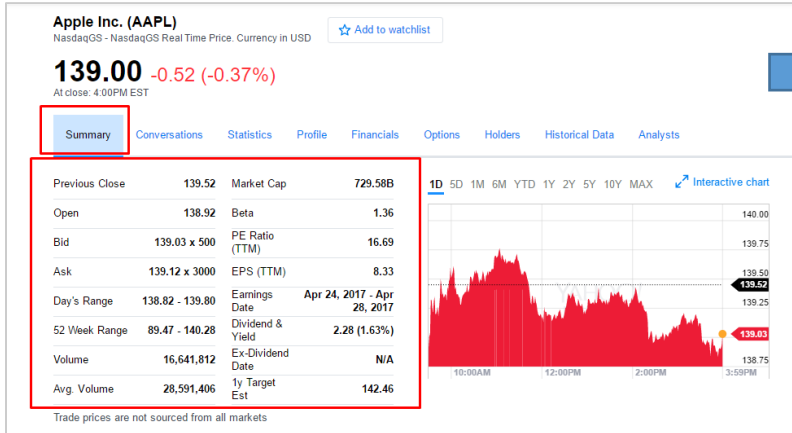
## Relevant Jobs

Business Analyst  
Financial Analyst  
Data Analyst  
Data Scientist  
Quantitative Trader  
Systems Business Analyst  
FinTech Regulatory Associate  
Software Developer  
Financial Manager  
Business Intelligence Analyst  
Cryptocurrency Expert  
Blockchain Developer

# **Sample Homework Assignments**

# Sample Assignment: Risky Business (APIs and Statistics)

You will learn to create *live* applications that draw stock data using the **financial APIs** to power **Jupyter** notebooks to analyze stock movement.



**Run the Monte Carlo Simulation and Save the Simulated Price to DataFrame**

```
In [8]: # Set number of simulations, trading days, and the last closing price of AAPL from DataFrame
num_simulations = 1000
num_trading_days = 252
aapl_last_price = df['close'][-1]

# Initialize empty DataFrame to hold simulated prices for each simulation
simulated_price_df = pd.DataFrame()

# Run the simulation of projecting stock price over the next trading year, '1000' times
for n in range(num_simulations):
    # Initialize the simulated prices list with the last closing price of AAPL
    simulated_aapl_prices = [aapl_last_price]

    # Simulate the returns for 252 days
    for i in range(num_trading_days):
        # Calculate the simulated price using the last price within the list
        simulated_price = simulated_aapl_prices[-1] * (1 + np.random.normal(avg_daily_return, std_dev_daily_return))
        # Append the simulated price to the list
        simulated_aapl_prices.append(simulated_price)

    # Append a simulated prices of each simulation to DataFrame
    simulated_price_df[f'Simulation {n+1}'] = pd.Series(simulated_aapl_prices)

# Print head of DataFrame
simulated_price_df.head()
```

**Out[8]:**

	Simulation 1	Simulation 2	Simulation 3	Simulation 4	Simulation 5	Simulation 6	Simulation 7	Simulation 8	Simulation 9	Simulation 10
0	190.150000	190.150000	190.150000	190.150000	190.150000	190.150000	190.150000	190.150000	190.150000	190.150000
1	187.736811	184.203871	185.437694	189.393759	190.756382	188.733806	189.190426	188.253537	187.867401	185.00625
2	185.724180	181.841180	182.017148	191.574346	195.208695	185.305713	189.701186	186.281182	187.183012	180.39162
3	187.627608	183.654148	178.159663	191.549876	197.771148	182.422006	194.462152	189.258733	189.254590	180.61319
4	186.638252	185.471061	176.401099	195.167248	199.853162	176.913986	194.359976	185.502599	194.739626	177.84529

5 rows x 1000 columns

**Plot the Multiple Simulations of Stock Price Trajectory for AAPL over the Next Year (252 Trading Days)**

```
In [9]: # Use the 'plot' function to plot the trajectory of AAPL stock based on a 252 trading day simulation
simulated_price_df.plot(figsize=(10, 6), title='Simulations of AAPL Stock Price Trajectory Over the Next 252 Trading Days')

Out[9]: <matplotlib.axes._subplots.AxesSubplot at 0x1190e4dd8>
```

1000 Simulations of AAPL Stock Price Trajectory Over the Next 252 Trading Days

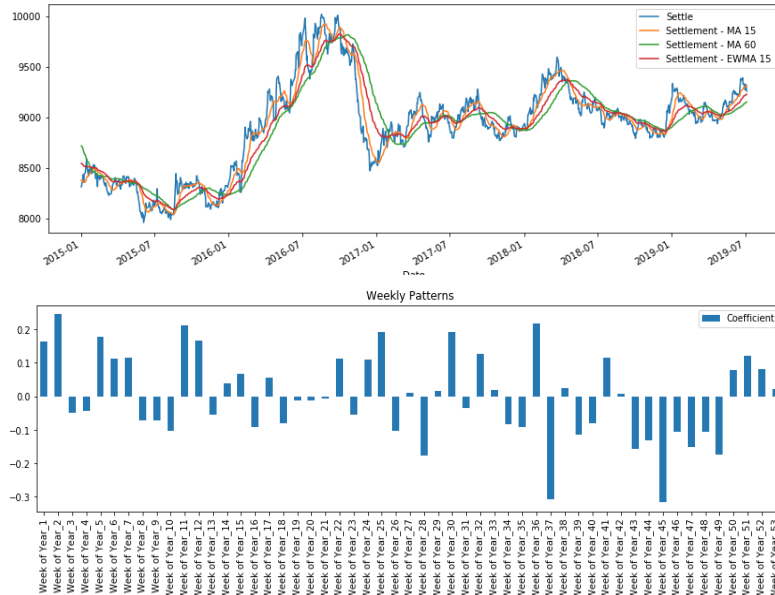


# Sample Assignment: Stock Forecasting (Python & Time Series Analysis)

You will learn to create **predictive models** for stock prices using time series analysis and disparate variables.

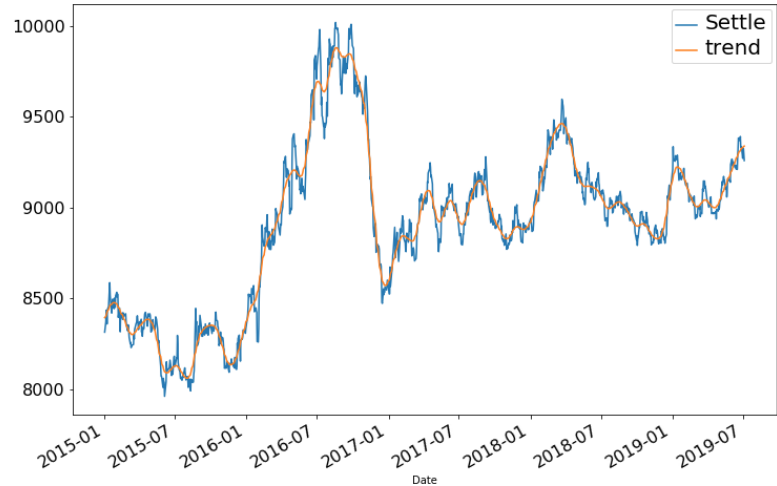
## Return Forecasting: MA/EWMA Smoothing of Futures Prices

<matplotlib.axes.\_subplots.AxesSubplot at 0x7f8d70a4e630>



## Return Forecasting: Decomposition Using a Hodrick-Prescott Filter

Using a Hodrick-Prescott Filter, decompose the Settle price into a trend and noise.



# Sample Assignment: Crypto Sentiment (Machine Learning)

Throughout the course, you will learn the basics behind the most common **machine learning techniques** (linear regression, logistic regression, KNN, k-means clustering, etc.) and how to apply these algorithms to classic challenges in the financial services sector, e.g., applying natural language processing to analyze sentiment scores for cryptocurrency news.

	Compound	Negative	Neutral	Positive	text
0	0.0516	0.900	0.036	0.064	Cryptocurrency exchange Binance has resumed tr...
1	0.3818	0.943	0.000	0.057	Bitcoin is now trading at around \$8,130, up a ...
2	-0.2263	0.888	0.065	0.047	Binance has vowed to raise the quality of its ...
3	0.3612	0.937	0.000	0.063	A new payment network called Flexa is launchin...
4	-0.6486	0.897	0.103	0.000	If you thought that the theft of 7,000 bitcoin...

## Bitcoin NER

Cryptocurrency exchange **Binance PERSON** has resumed trading activity. Users can now cancel open orders, deposit crypto assets into their **Binance GPE** account, and of course buy and sell cryptocurrencies. You cant withdraw crypto assets to an external wallet just yet, but ... [+1191 chars]Bitcoin is now trading at **around \$8,130 MONEY** , up a whopping **60.84 percent PERCENT** over **the past month DATE** , with the price surging \$ **3,086.14 MONEY** over the period.

The cryptocurrency's meteoric rise is reminiscent of its rocketing growth in **the latter half of 2017 DATE** , when prices reac... [+4311 chars]Binance has vowed to raise the quality of its security in the aftermath of a hack that saw thieves make off with over **\$40 million MONEY** in **Bitcoin GPE** from the exchange.

The company — which is widely believed to operate the world's largest crypto exchange based on tra... [+2269 chars]A new payment network called **Flexa ORG** is launching **today DATE** that'll let you spend cryptocurrencies in physical stores. The technology currently supports bitcoin, ether, bitcoin cash, and the gemini dollar, and it'll work at retailers including **GameStop ORG** , **Nordstrom NORP** , ... [+1743 chars]If you thought that the theft of **7,000 CARDINAL** bitcoins from one of the world's biggest crypto exchanges would stop **Bitcoin GPE** 's price in its tracks, you were wrong.

On **Thursday DATE** , the price of **Bitcoin GPE** went above \$ **6,000 MONEY** for the **first ORDINAL** time since **November last year DATE** . At th... [+1729 chars]Quadrac.io, a startup founded by some of the folks behind the once-secretive bitcoin mining operation 21E6," has raised **\$15 million MONEY** in a Series A round that will fund the development of a supercomputer designed for autonomous systems.

The round was led by ... [+3424 chars]A **Europol PERSON** -led police operation has arrested **three CARDINAL** people who allegedly ran the Wall Street Market, supposedly the world's **second ORDINAL** -largest "dark web" marketplace. Authorities also seized the site's **servers and more than €550,000 MONEY** ( **around \$615,000 MONEY** )

# Tips

Embrace your  
inner toddler.







Brace yourself  
for **doubt**,  
**challenge**,  
and **confusion**.

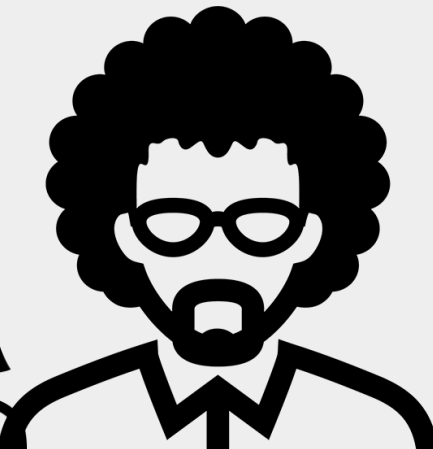
Relish the **novice experience**  
and expect a lot of  
**lightbulb moments.**



# Form a **community** with your classmates.

You and your classmates are in this process together. Use each other for help!

You all bring value to the table.  
Don't be afraid to speak up!



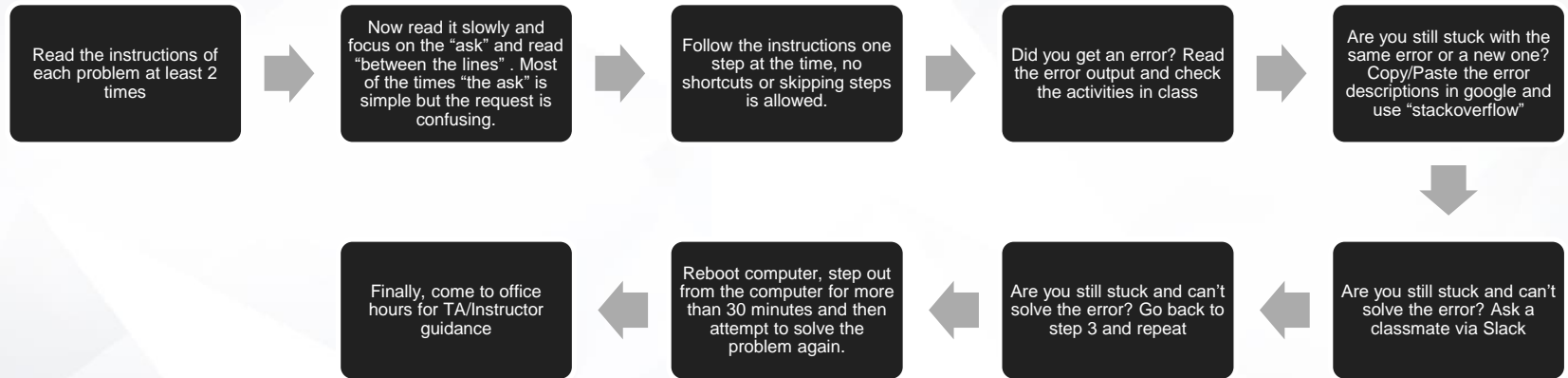
There is no shortcut.  
You've got to **put in the hours!**





**Celebrate**  
your successes!

# Personal troubleshooting roadmap



## Bonus:


- Do HWS after Lesson 2 or Day 2
- Keep in mind that there is a solution for every error that you get, you just need to tell the computer the right way to solve the error.



 Countdown timer

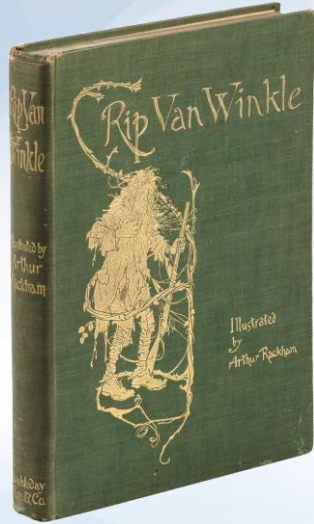
15:00

(with alarm)



**What was the  
finance world like  
in 1999?**





## Activity: Rip Van Winkle

Rip Van Winkle is the story of a man who fell asleep right before the events of the American Revolution. He woke up 20 years later to find the world completely changed.

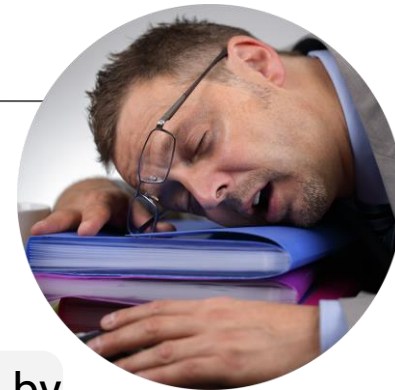
In this thought experiment, you will imagine what it would be like if Rip Van Winkle was a financial analyst who fell asleep in 1999 and woke up 20 years later.

**Suggested Time:**  
10 Minutes



# Activity Instructions: Rip Van Winkle

Apply the Rip Van Winkle story to FinTech by imagining if a financial analyst fell asleep in the year 1999 and woke up today. What would he or she find most surprising about the current finance world?



Define areas of finance that have been deeply affected by technology.



Name specific companies, products, or innovations that would be surprising to a financial analyst from 1999.

**Suggested Time:** 10 Minutes





**Time's Up!** Let's Review.

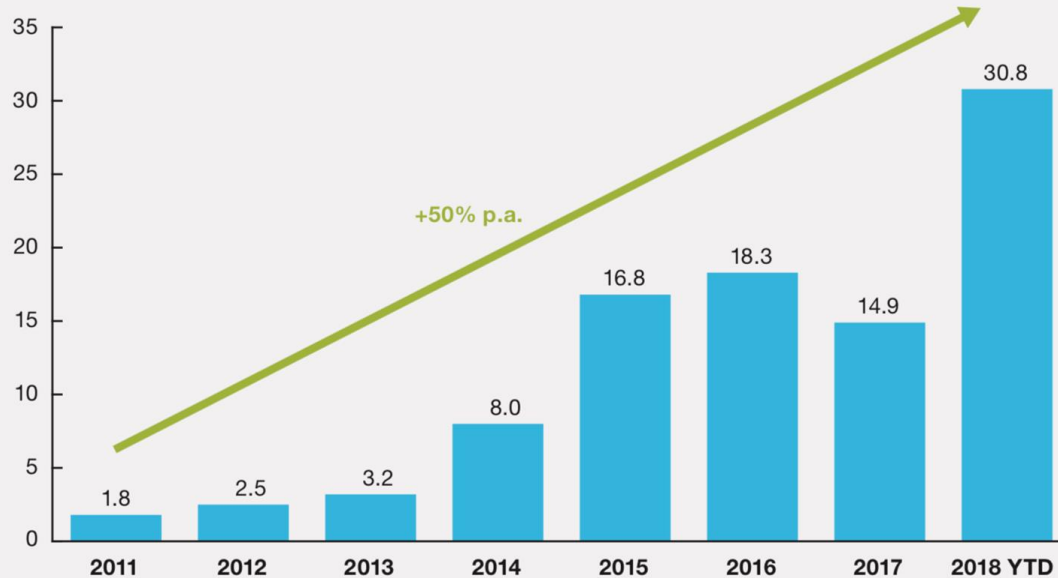
# The Rise of FinTech

# Global FinTech Investment Growth

FinTech investment has shown dramatic growth in recent years.

Global venture capital investment in fintechs

\$ billion



Source: CB Insights; McKinsey analysis



Why is FinTech such a **hot** field of study these days?

# The Driving Forces of FinTech

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FinTech is driven by the same trends that dominate software and consumer technology.

## Driving Technologies

**Artificial Intelligence**

**Blockchain**

**Mobile Technology**

**Machine Learning**

**Cryptocurrency**

**Cloud / Dev Ops**

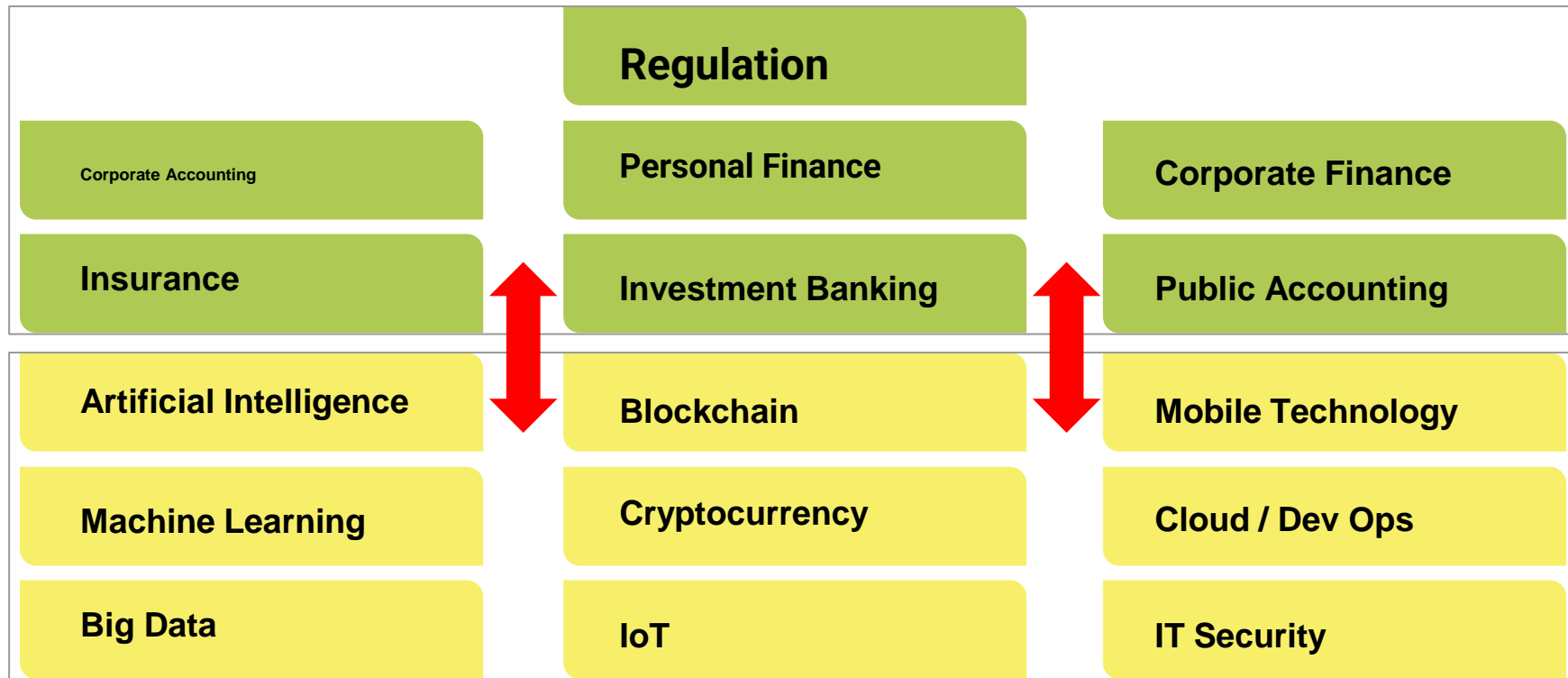
**Big Data**

**IoT**

**IT Security**

# The Driving Forces of FinTech

## Target Industries





# FinTech Thought Experiments

# Analyze the Need

# Step 1: Identify Data Sources

Web services like FRED (Federal Reserve Bank of St. Louis) provide economic data and indicators that cover banking, business, consumer price indexes, employment, population, GDP, and more.

The screenshot displays the FRED (Federal Reserve Bank of St. Louis) website. The header includes the FRED logo, "ECONOMIC RESEARCH", and a search bar. Below the header, a navigation bar lists links like "FRED: Economic Data", "Information Services", "Publications", "Working Papers", "Economists", and "About". A main banner area promotes downloading, graphing, and tracking 567,000 US and international time series from 87 sources, with a search bar and a "Browse data by Tag, Category, Release, Source, Release Calendar or Get Help" link. The left sidebar features sections for "FRED News", "FRED Adds Wealth Distribution Data", "FRED's Freshest Data", "FRED Blog", and "Research News". The right sidebar promotes "FRASER" (Discover economic history) with a list of available data types. The main content area is divided into two columns of data series, each with a small line graph icon and an up/down arrow. The left column includes "Consumer Price Index for All Urban Consumers: All Items", "Real Gross Domestic Product", "Industrial Production Index", and "10-Year Treasury Constant Maturity Rate". The right column includes "U.S. / Euro Foreign Exchange Rate", "Civilian Unemployment Rate", "All Employees: Total Nonfarm Payrolls", and "4-Week Moving Average of Initial Claims".

**FRED** ECONOMIC DATA | ST. LOUIS FED  
ECONOMIC RESEARCH  
FEDERAL RESERVE BANK OF ST. LOUIS

MY ACCOUNT  
Search FRED

FRED: Economic Data | Information Services | Publications | Working Papers | Economists | About | St. Louis Fed Home

Download, graph, and track **567,000 US and international time series** from **87 sources**.

Search FRED data e.g., gdp, inflation, unemployment

Browse data by **Tag**, **Category**, **Release**, **Source**, **Release Calendar** or **Get Help**

**FRED News**

FRED Adds Wealth Distribution Data

FRED's Freshest Data

**FRED Blog**

It sure looks like hosting the 2019 World Cup boosted France's construction sector...

**Research News**

If Banks Held More Capital...

**FRASER**

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- correspondence
- government data publications
- special collections

DISCOVER ECONOMIC HISTORY | ST. LOUIS FED

AT A GLANCE | POPULAR SERIES | LATEST RELEASES | TOOLS | NEED HELP?

**Consumer Price Index for All Urban Consumers: All Items**  
+1.7 % Chg. from Yr. Ago on Jun 2019

**Real Gross Domestic Product**  
3.1 % Chg. from Preceding Period on Q1 2019

**Industrial Production Index**  
+0.4 % Chg. on May 2019

**10-Year Treasury Constant Maturity Rate**  
2.07 % on 2019-07-09

**U.S. / Euro Foreign Exchange Rate**  
1.1216 U.S. \$ to 1 Euro on 2019-07-05

**Civilian Unemployment Rate**  
3.7 % on Jun 2019

**All Employees: Total Nonfarm Payrolls**  
+224 Chg., Thous. of Persons on Jun 2019

**4-Week Moving Average of Initial Claims**  
219250 on 2019-07-06

# Step 1: Identify Data Sources



**Lots of Data!**

## World Bank Open Data

Free and open access to global development data

Search data e.g. GDP, population, Indonesia

Browse by [Country](#) or [Indicator](#)

MOST RECENT

World's population will continue to grow and will reach nearly 10 billion by 2050 [↗](#)  
E. Suzuki, Jul 08, 2019

Harnessing the power of data so no child is left behind [↗](#)  
O. Fiala, Jul 08, 2019

New country classifications by income level: 2019-2020 [↗](#)  
World Bank Data Team, Jul 01, 2019

Chart: 47 million people are connected to a mini grid [↗](#)

[View all news](#) [View all blogs](#)

WHAT YOU CAN LEARN WITH OPEN DATA

**Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population)**

Data from [World Bank](#)

### Extreme Poverty

The proportion of the world's population living in extreme poverty has dropped significantly

### THE NEW World Development Indicators

POVERTY AND HUMAN DEVELOPMENT PEOPLE ENVIRONMENT ECONOMY STATES AND MARKETS GLOBAL LINKS

OCT 01, 2018 Do children who work attend school? [↗](#)

OCT 01, 2018 In Sub-Saharan Africa, HIV is more common among young women than [↗](#)

OCT 01, 2018 Globally, more than 1 in 10 people defecate in the open [↗](#)


Indicator	Code	Time coverage	Region coverage	Get data
Population, total	SP.POP.TOTL	1950-2018	World, Africa, Asia, Europe, Latin America, Middle East, North America, Oceania, South America	<a href="#">API</a>
Population growth (annual %)	SP.POP.GROW	1950-2018	World, Africa, Asia, Europe, Latin America, Middle East, North America, Oceania, South America	<a href="#">API</a>
Birth rate, crude (per 1,000 people)	SP.DYN.CBRT.IN	1950-2018	World, Africa, Asia, Europe, Latin America, Middle East, North America, Oceania, South America	<a href="#">API</a>
Death rate, crude (per 1,000 people)	SP.DYN.CDRT.IN	1950-2018	World, Africa, Asia, Europe, Latin America, Middle East, North America, Oceania, South America	<a href="#">API</a>

[World Development Indicators](#) [↗](#)


Oct 29, 2018

## Step 2: Build a Data Retrieval Plan

We could retrieve this data by brute force, but it would be:



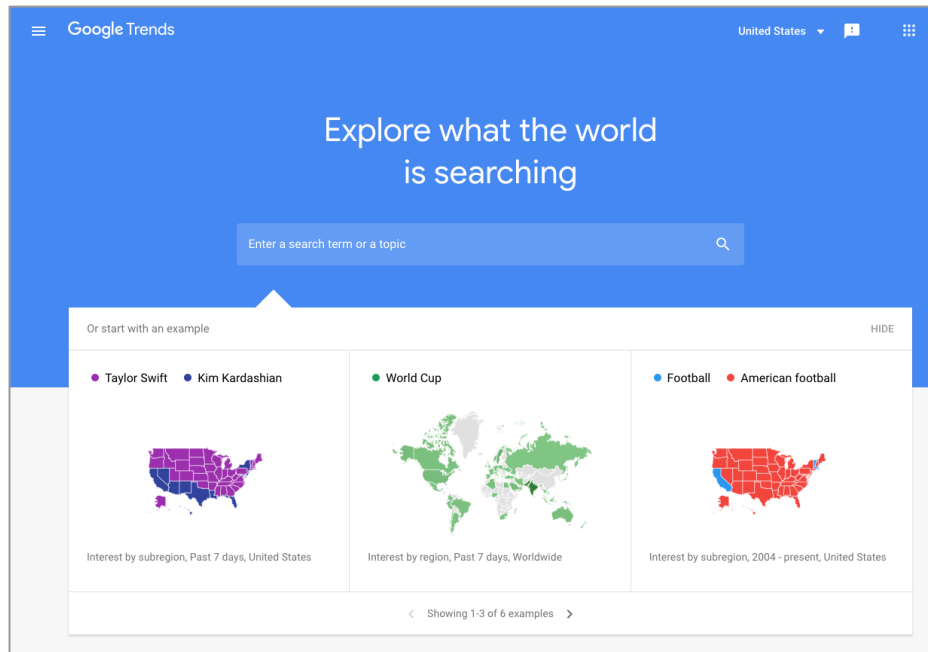
Extremely time consuming



Skewed by our city familiarity

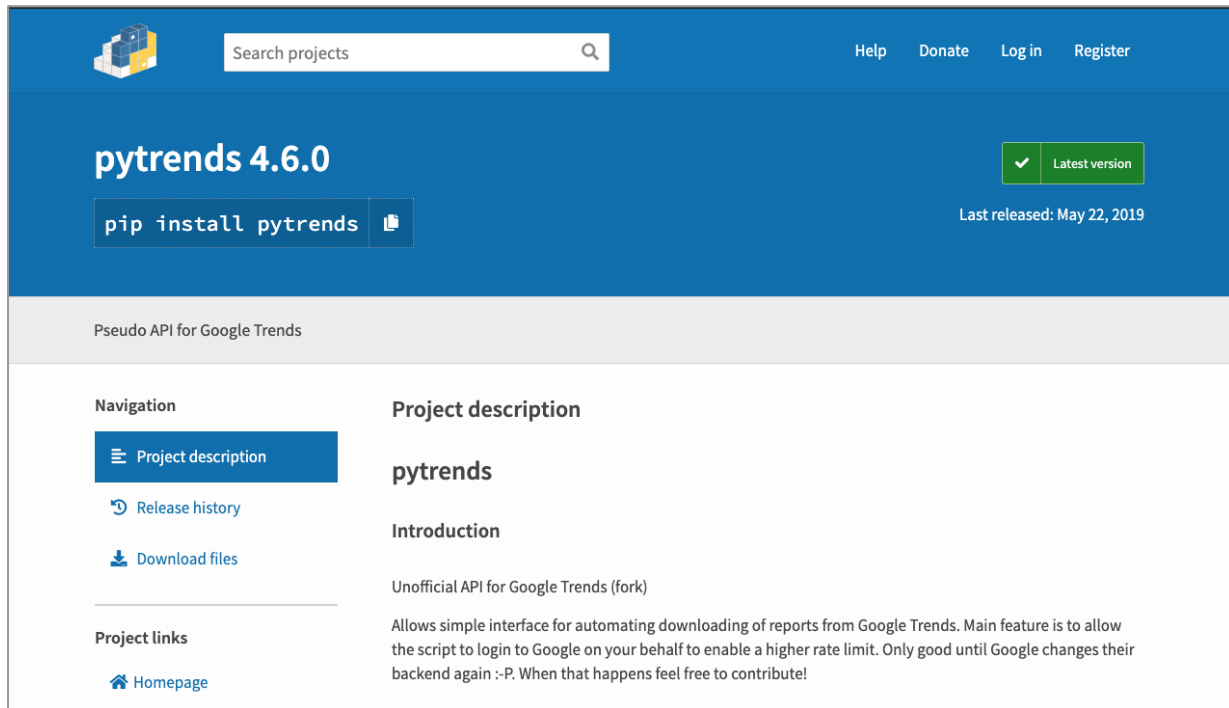


Labor intensive



## Step 2: Build a Data Retrieval Plan

Thankfully, we can take advantage of the **pytrends API** to **programmatically** run our queries. (#ThankGoodnessForProgramming)



The screenshot shows the GitHub project page for **pytrends 4.6.0**. The header is blue with the GitHub logo, a search bar, and links for Help, Donate, Log in, and Register. Below the header, the project name **pytrends 4.6.0** is displayed, along with a green badge indicating it is the **Latest version** and the text **Last released: May 22, 2019**. A code block shows the command `pip install pytrends`. Below this, a grey bar reads **Pseudo API for Google Trends**. The main content area is divided into two columns. The left column, titled **Navigation**, contains links for **Project description** (highlighted), **Release history**, and **Download files**. The right column, titled **Project description**, shows the **pytrends** logo and the **Introduction** section. The introduction text states: "Unofficial API for Google Trends (fork). Allows simple interface for automating downloading of reports from Google Trends. Main feature is to allow the script to login to Google on your behalf to enable a higher rate limit. Only good until Google changes their backend again :-P. When that happens feel free to contribute!" At the bottom left, under **Project links**, there is a link to the **Homepage**.

# Step 3: Retrieve the Data with Python

```
In [3]: # Create payload and capture API tokens. Only needed for interest_over_time(), interest_by_region() & related_queries()
pytrends.build_payload(kw_list=['alpaca'])
```

```
In [4]: # Interest Over Time
interest_over_time_df = pytrends.interest_over_time()
interest_over_time_df.head()
```

Out[4]:

	alpaca	isPartial
date		
2014-07-13	50	False
2014-07-20	53	False
2014-07-27	49	False
2014-08-03	52	False
2014-08-10	52	False



**This funky code will search Google trends for “alpaca” and return the data...**

## Step 4: Assemble and Clean the Data

```
In [7]: # Interest by Region
interest_by_region_df = pytrends.interest_by_region(resolution='COUNTRY', inc_low_vol=True, inc_geo_code=False)
print(interest_by_region_df.head())
```

	alpaca
geoName	
Afghanistan	0
Albania	4
Algeria	1
American Samoa	0
Andorra	0



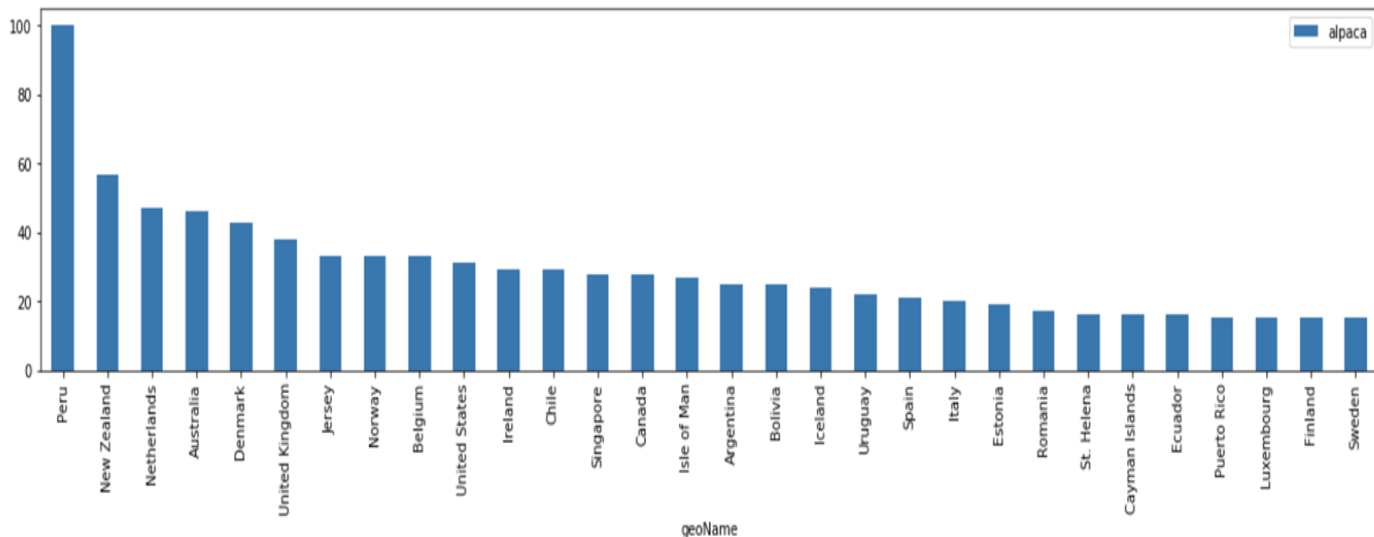
**...which we can clean up, and then  
group results by country...**



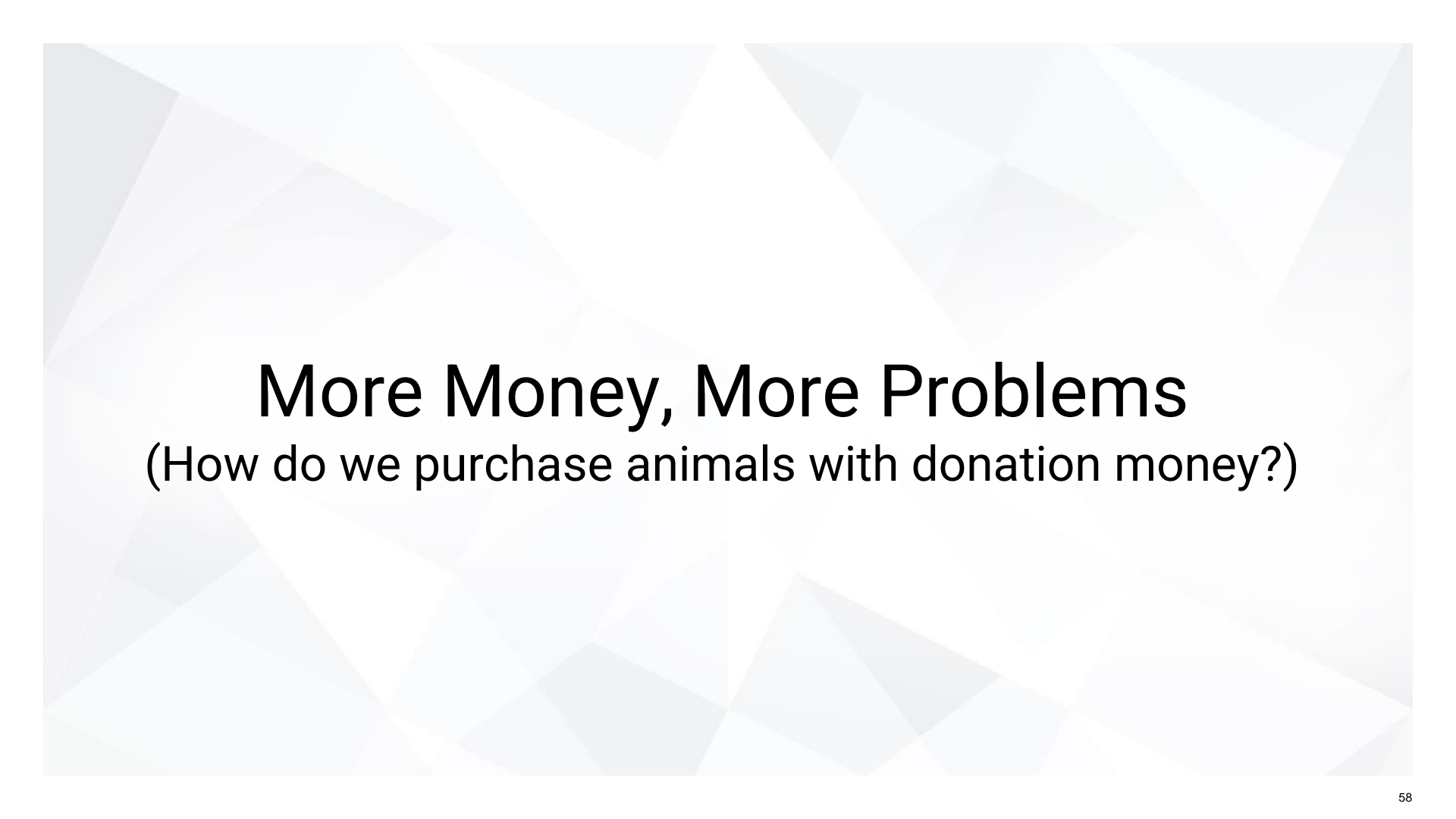
## Step 5: Analyze for Trends

```
In [20]: interest_by_region_df.sort_values(by='alpaca',ascending=False)[0:30].plot(kind='bar', figsize=(20, 4), sort_columns=True)
```

```
Out[20]: <matplotlib.axes._subplots.AxesSubplot at 0x122a21240>
```



**Finally, we can visualize the trends to see that Peru is the best location based on search trends. Obviously, there are other factors to consider, but we are rolling with this for now!**



# More Money, More Problems

(How do we purchase animals with donation money?)

# Cross-Border and Localized Payments

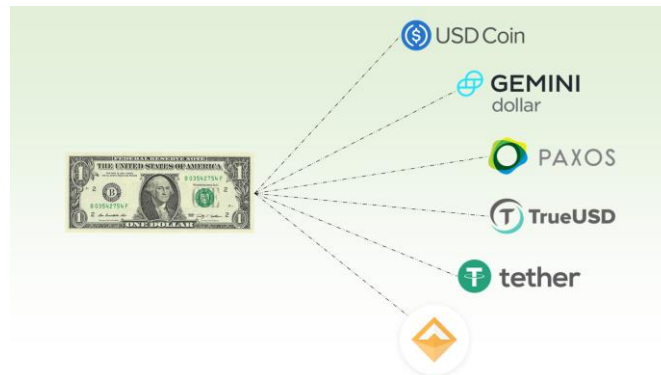
How do we move money easily in places where banking infrastructure is not stable?



Cryptocurrencies have provided a way to easily move value between borders. This is valuable in environments where the financial infrastructure is either unstable or nonexistent.



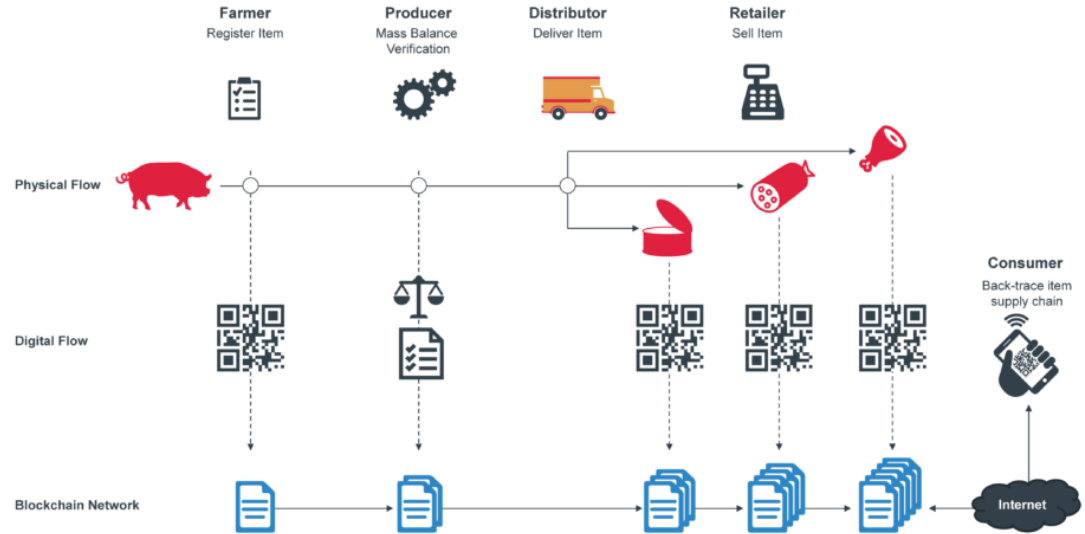
Stablecoins have provided a way to use blockchain technology without volatility.



# Blockchain Logistics

We can address accountability, governance, transparency, and efficiency with cutting-edge DeFi technology.

By targeting the supply chain and leveraging blockchain technology, we can trace the impact of the strategy from the initial donation to the event itself.



# Analyzing Socioeconomic Impact

We can use similar techniques to examine the effectiveness of the charity.

Analyze Wool Sales in the Region

Analyze Economic Indicators



# Tracking Transactions

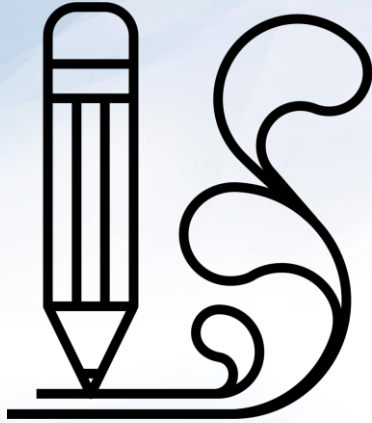
By leveraging DeFi technologies, you can examine blockchain data and analyze the transaction flow.

You can analyze volume and transaction flow in the region with the wool purchases from the online and peer-to-peer markets.

Proof can be embedded into the transaction.



Transactions		
Tx	0x840bccc19f...	From 0xf3630c948c8bc62... To 0x68b0db0337d421...
	54 secs ago	0 Eth
Tx	0xa5ccb87c15...	From 0xde253c56e3f4fba... To 0x4bcb674e03d...
	54 secs ago	0 Eth
Tx	0x3c838d2f67...	From 0x1d7e1445cd9a30... To 0xe22160dad38907...
	54 secs ago	0.15 Eth
Tx	0xefdc0ef1d...	From 0x761c4412ff0864e... To 0x4dd672e77c7958...
	54 secs ago	0 Eth
Tx	0xb514a72c51...	From 0x0e95f8f8ecbd770... To 0x8fdcc30eda7e94f...
	54 secs ago	0 Eth
Tx	0x96a08f02d6...	From 0x0e95f8f8ecbd770... To 0x8fdcc30eda7e94f...
	54 secs ago	0 Eth
<a href="#">View All Transactions</a>		



## **Homework: FinTech Case Study**

In this homework assignment, you will develop a case study for a particular FinTech company or technology.

(Instructions sent via Slack.)





Questions?