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Deirdra O’Gorman has 24 years of experience as a senior financial services executive. She has held numerous leadership positions, including CEO of a de novo financial institution and Market President for a nationally chartered bank, with \$17 billion in assets. With her extensive banking experience, Ms. O’Gorman founded a successful consulting firm, DX Consulting, in 2014. Since 2015, along with her consulting practice, Ms. O’Gorman has served as the CEO of The Fourth Corner Credit Union (4CCU). 4CCU is first credit union chartered in over 10 years in the state of Colorado. Most recently, Deirdra and her business partners founded Empyreal Logistics, a logistics company that provides transit, cash processing and compliance solutions for financial institutions and businesses.

In 2016, Deirdra was named one of 20 “People to Watch” in the cannabis financial services industry and has been featured in articles by the New York Times, the Wall Street Journal, CNN and more. She is considered one of the foremost experts on banking and compliance for highly regulated industries. Through her work, she has become a nationally known speaker and can be found working with financial institutions, regulators, government agencies, entrepreneurs, and attorneys who are looking to gain a better understanding of emerging markets.

What is Hemp?

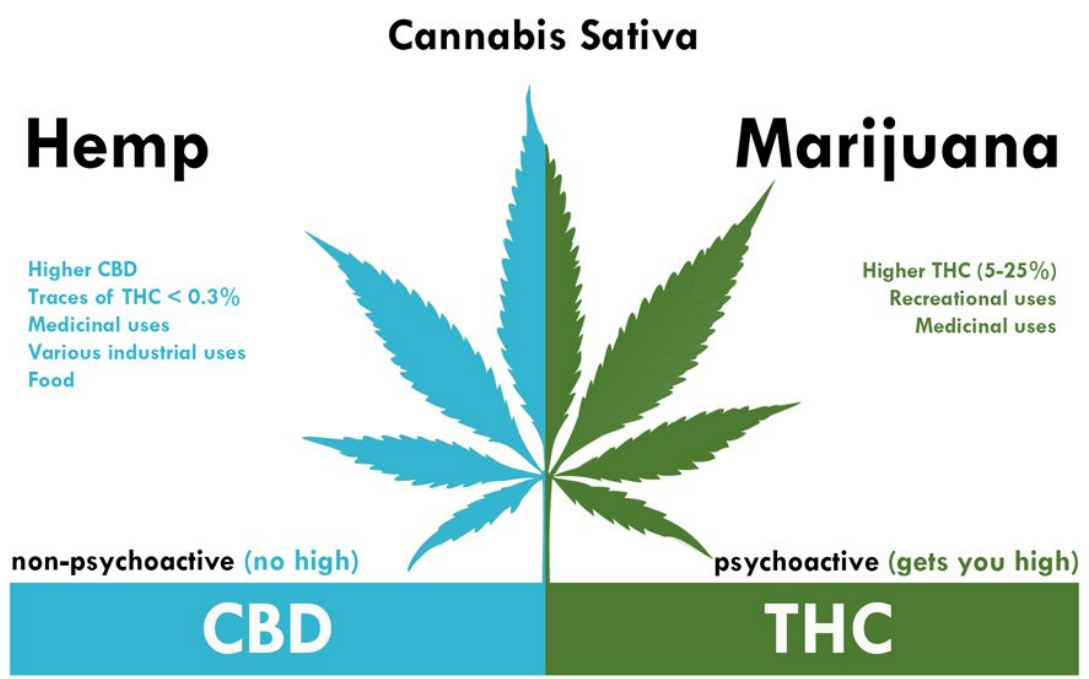
Industrial hemp is made up of varieties of *Cannabis sativa* L. that contain less than 0.3% Tetrahydrocannabinol (THC).

Marijuana, hemp and cannabis are common names for plants of the genus *Cannabis*.



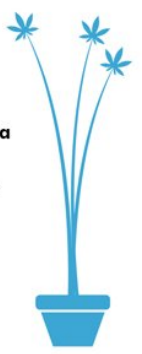
Pic and Desc by <http://www.hemptrade.ca/eguide/background/the-hemp-plant>

What is Hemp?



Widely-Known Benefits

- | | |
|----------------------|------------------|
| Anxiety | Pain Relief |
| Cramps | Bone growth |
| Migraine/Headache | Muscle spasms |
| Inflammation | Vomiting/Nausea |
| Arthritis | Lupus |
| Hypertension | Bacterial growth |
| Blood sugar levels | Cancer growth |
| Seizures/Convulsions | |



CBD does not directly bind with the CB1 receptor, instead CBD interacts with other receptors and pathways in the body which explains specific and non-psychoactive relieved health benefits.

Widely-Known Benefits

- Vomiting/Nausea
- Appetite
- Sleep
- Cancer growth
- Glaucoma
- Pain Relief
- Muscle spasms
- Asthma
- GI Tract



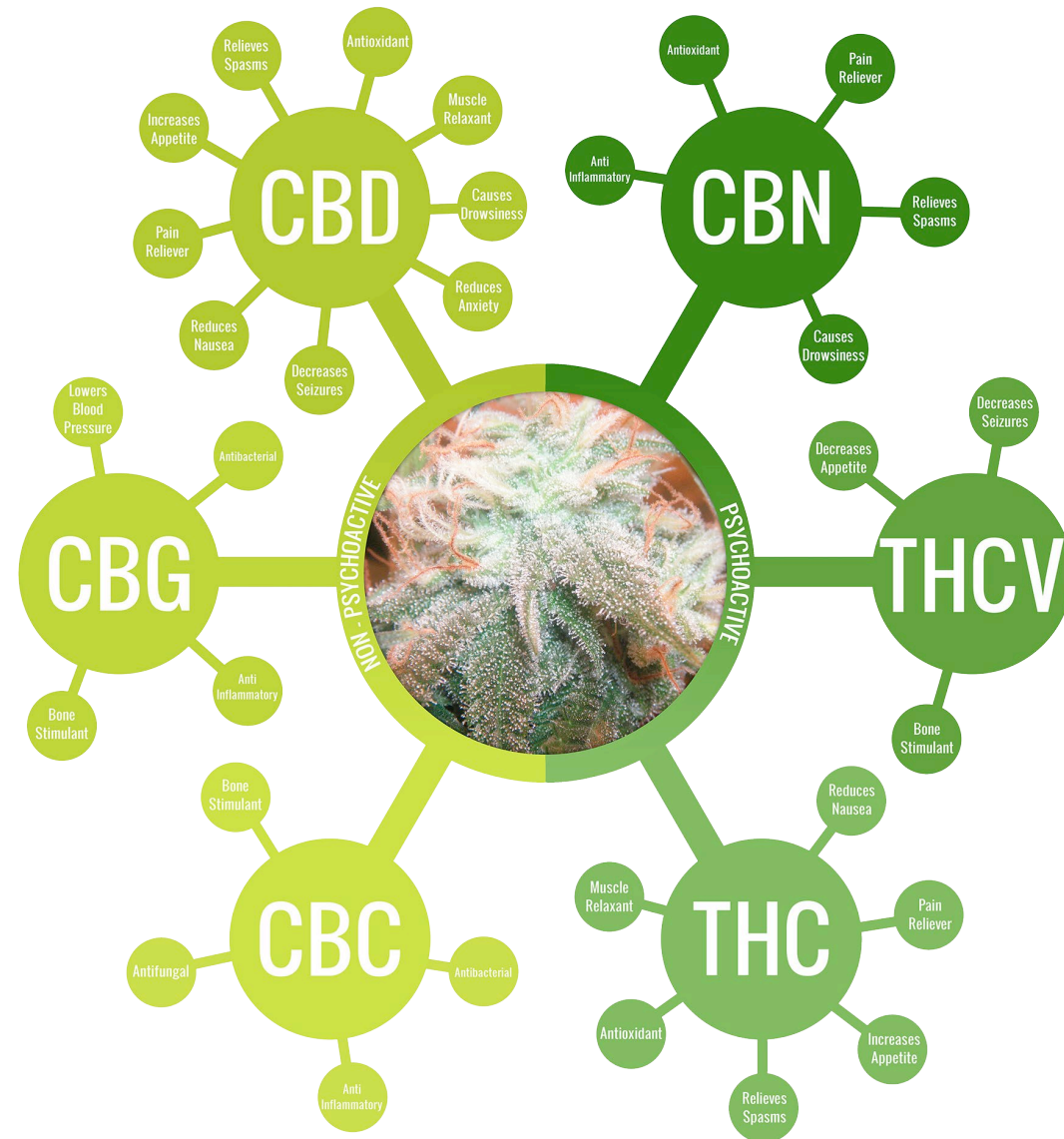
THC directly binds to CB1 receptors in the body, which are predominantly found in the brain and nervous system. The CB1 receptor activation is therefore responsible for the "high" from consuming cannabis.

Graphic by <https://lawsofsustainability.com/eaze-wellness/2019/6/20/hemp-vs-marijuana-whats-the-difference>

What is Hemp? Let's talk Cannabinoids

What are Cannabinoids?

Cannabinoids are chemical compounds that act on cannabinoid receptors in the body. With Hemp the primary reactor is CBD, not THC like Marijuana.



What is Hemp?

Hemp can be grown as a renewable source for raw materials that can be incorporated into thousands of products. Its seeds and flowers are used in health foods, organic body care, and other nutraceuticals.

hemp seed



hemp stalk



Description by <https://www.leafly.com/news/cannabis-101/hemp-101-what-is-hemp-whats-it-used-for-and-why-is-it-illegal>

What is Hemp? Can Hemp become Marijuana?

Technically, yes. It's all about the THC content of the plant. Hemp is defined as .03% THC. The percentage may seem arbitrary, but there's history behind it. According to California nonprofit Project CBD, the figure first came from a 1976 article in *Taxon*, the journal of the International Association for Plant Taxonomy, by Canadian plant scientists Ernest Small and Arthur Cronquist. After that, says CDA spokesman Duane Sinning, it was included in international treaties and adopted by the United Nations Office on Drugs and Crime.



Most hot hemp crops occur when farmers are working with a new seed, but other factors can cause a THC spike in hemp plants, such as the growing environment and overly long flowering periods. Also certain hemp strains known for spiking THC levels during the flowering stage.

Article by Westword pic by High Times <https://www.westword.com/marijuana/hot-hemp-how-high-thc-levels-can-ruin-a-legal-hemp-harvest-9963683>

What is Hemp? Hemp CBD

CBD oil is usually extracted from industrial hemp or from marijuana. CBD is one of more than 120 cannabinoids compounds that react with the human body.



<https://www.healthline.com/health/how-to-take-cbd>

Hemp in the U.S.



Hemp in the U.S. - Timeline



2018 – President Trump signs 2018 Farm Bill, re-legalizing industrial hemp in the U.S.

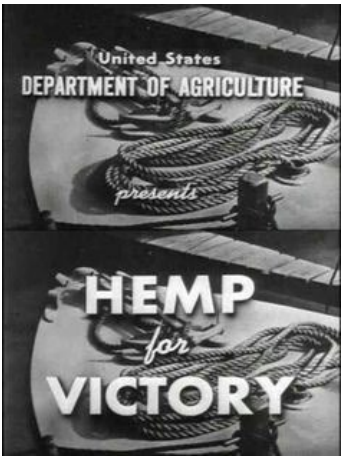
<http://www.wsvx.com/2018/12/21/leising>



2014 - President Obama signs the Farm Bill legalizing research hemp farms. (Leafly)

<https://www.ancient-origins.net/history/cannabis-journey-through-ages-003084>

1998 – Industrial Hemp legalized in Canada. (CBC.org)



<https://www.usda.gov/>

1970 – Hemp, along with Marijuana, was rendered federally illegal under the Controlled Substances Act and categorized as a Schedule I Drug. (DEA.gov)

1942 – WWII-era shortages in fiber causes US hemp production to ramp up again to supply with US Navy with rigging. (RAND Drug Policy Research Center)

1937 – The US Marijuana Tax Act destroys the domestic hemp trade and begins war on cannabis. (RAND Drug Policy Research Center)

1776 – Colonial Virginian Farmers can pay taxes to the government in hemp. (History.org)



<https://cannabiscompany.com.au/pages/the-history-of-cannabis>

Hemp in the U.S. - Congress, The 2018 Farm Bill

In December 2018, The Farm Bill was signed into law. Championed by Senate Majority Leader Senator Mitch McConnell (R-KY) with strong bi-partisan support, the Bill:

- ❖ Defines hemp as the plant *Cannabis sativa* L. and any part of the plant with a delta-9 THC concentration of not more than 0.3 percent by dry weight. Any cannabis plant that contains more than 0.3 percent THC would be considered non-hemp cannabis—or marijuana—under federal law and would thus face no legal protection under this new legislation.
- ❖ Removes hemp from the Controlled Substances Act
- ❖ Delegates to states and Indian tribes the broad authority to regulate and limit the production and sale of hemp and hemp products within their borders. States and Indian tribes cannot, however, limit the transportation or shipment of hemp and hemp products through their respective jurisdictions. State departments of agriculture must consult with the state's governor and chief law enforcement officer to devise a plan that must be submitted to the Secretary of USDA. A state's plan to license and regulate hemp can only commence once the Secretary of USDA approves that state's plan. In states opting not to devise a hemp regulatory program, USDA will construct a regulatory program under which hemp cultivators in those states must apply for licenses and comply with a federally-run program.
- ❖ Outlines actions that are considered violations
- ❖ The new law allows interstate commercial transfers and sales of hemp and hemp-derived products, but clashes with the U.S. Food and Drug Administration (FDA), which has flatly rejected the notion that hemp-derived CBD products are legal. "Selling unapproved products with unsubstantiated therapeutic claims is not only a violation of the law, but also can put patients at risk, as these products have not been proven to be safe or effective," Former FDA Commissioner Scott Gottlieb wrote shortly after the 2018 Farm Bill was approved by Congress.

Ultimately, the Farm Bill legalizes hemp, but needs agency direction to establish rules and regulations.

Hemp in the U.S. - the Controlled Substances Act (CSA)

SCHEDULE	DESCRIPTION	EXAMPLES		
Schedule 1	Drugs with no currently accepted medical use and a high potential for abuse. They are the most dangerous drugs of all the drug schedules with potentially severe psychological or physical dependence.	<ul style="list-style-type: none">- Heroin- Lysergic acid diethylamide (LSD)- Marijuana (Cannabis)- Methylenedioxymethamphetamine (Ecstasy)- Methaqualone- Peyote		
Schedule 2	Drugs with a high potential for abuse, with use potentially leading to severe psychological or physical dependence. These drugs are also considered dangerous.	<ul style="list-style-type: none">- Combination products with less than 15mg of hydrocodone per dosage unit (Vicodin)- Cocaine- methamphetamine- Methadone- Hydromorphone (Dilaudid)- Meperidine (Demerol)- Oxycodone (OxyContin)- Fentanyl- Dexedrine- Adderall- Ritalin		
Schedule 3	Drugs with a moderate to low potential for physical and psychological dependence. Schedule 3 drugs abuse potential is less than Schedule 1 and Schedule 2 drugs but more than Schedule 4.	<ul style="list-style-type: none">- Products containing less than 90mg of codeine per dosage unit (Tylenol and codeine)- Ketamine- Anabolic steroids- Testosterone		
Schedule 4	Drugs with a low potential for abuse and low risk of dependence.	<table><tr><td><ul style="list-style-type: none">- Xanax- Soma- Darvon- Darvocet- Valium</td><td><ul style="list-style-type: none">- Ativan- Talwin- Ambien- Tramadol</td></tr></table>	<ul style="list-style-type: none">- Xanax- Soma- Darvon- Darvocet- Valium	<ul style="list-style-type: none">- Ativan- Talwin- Ambien- Tramadol
<ul style="list-style-type: none">- Xanax- Soma- Darvon- Darvocet- Valium	<ul style="list-style-type: none">- Ativan- Talwin- Ambien- Tramadol			
Schedule 5	Drugs with lower potential for abuse than Schedule 4 and consist of preparations containing limited quantities of certain narcotics. Schedule 5 drugs are generally used for antidiarrheal, antitussive, and analgesic purposes.	<ul style="list-style-type: none">- Cough preparations with less than 200mg of codeine per 100ml (Robitussin AC)- Lomotil- Motofen- Lyrica- Parepectolin		



Removed

Hemp in the U.S. – What now?

The U.S. Department of Agriculture (USDA), Food and Drug Administration (FDA), Environmental Protection Agency (EPA), the U.S. Treasury, U.S. Trade Association (USTR), Commerce and Justice Department agencies are working to write the rules and regulations needed for full hemp implementation. The new regulatory framework is expected to be in place this fall in anticipation of the 2020 grow season. The industry needs a regulatory framework for such issues as including lab testing requirements, farm inspections, and the destruction process for any hemp crop that tests above the 0.3 percent THC limit.

Industry experts speculate that USDA will be focused on writing regulations that provide growers with a full range of USDA support including:

- ❖ Crop insurance
- ❖ Funding from USDA's rural development programs
- ❖ Interstate regulations

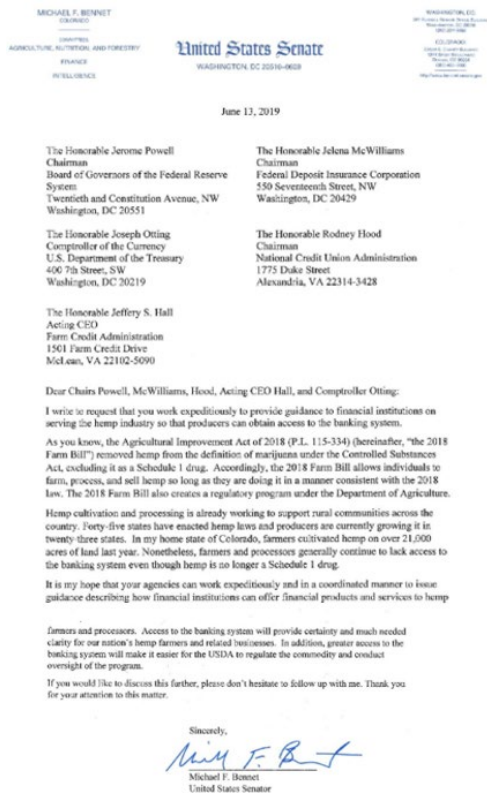


Hemp Guidance



Pic by: http://media.bizj.us/view/img/1668591/7abankingmarijuana*304.jpg

Hemp Guidance - Federal Regulators



On June 13, 2019, Senator. Michael Bennet (D-CO) sent a letter requesting clarification on banking services for hemp businesses to the heads of five federal financial regulatory agencies. However the responses from the Federal Reserve, Federal Deposit Insurance Corporation (FDIC), Office of the Comptroller of the Currency (OCC), Farm Credit Administration (FCA) and National Credit Union Administration (NCUA)—varied with regard to what the agencies said they were actively doing, or plan to do, to clear up remaining confusion within the financial sector.

NCUA

“I share your concern that hemp farmers and processors may lack access to the financial services system,” NCUA Chairman Rodney Hood wrote. “Full access to the system will better enable these farmers and processors across the country to make investments in their businesses and create jobs.”

“Unfortunately, until the Department of Agriculture completes their regulations and guidelines for this program, the uncertainty for financial institutions will likely remain,” he said, referring to the ongoing rulemaking process at USDA that Secretary Sonny Purdue said would be in place in time for the 2020 planting season.

“The NCUA is working on possible future guidance to financial institutions in this area, and we are consulting with FinCEN and other federal banking agencies,” he said. “Opening, closing, or declining a particular account is a business decision for the credit union.”

“Once we are able to provide more clarity, credit unions will be able to make more informed decisions,” Hood added. “As with any such business decision, credit unions should consider their objective, evaluate the risks, and determine their capacity to manage those risks.”

Guidance – Department of Treasury

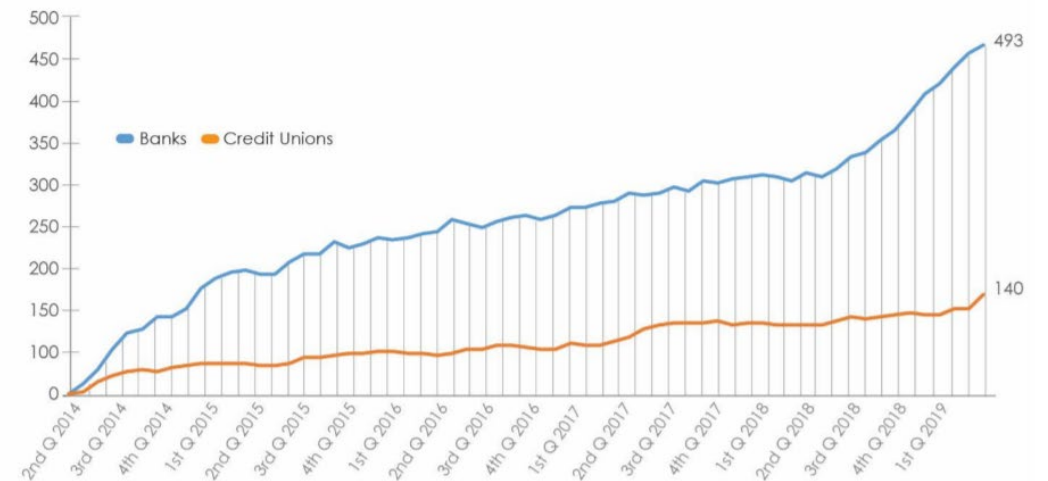
According to FinCEN's Marijuana Banking Update (dated March 2019), 633 depository institutions, including 140 credit unions, were providing banking services to MRBs as of March 31, 2019. This represents an increase of 147 total depository institutions, 29 of which were credit unions, since the previous Marijuana Banking Update in September 2018. FinCEN's data also indicated that it received a total of 81,725 SARs using the key phrases associated with MRBs. This equated to a 17.9 percent increase in SARs since September 2018. Of the total amount of SARs filed, 61,036 contained the phrase "marijuana limited," indicating that none of the eight Cole Memo priorities were involved; whereas, 6,067 SARs filed contained the phrase "marijuana priority," indicating that one of the eight Cole Memo priorities were implicated. The remaining SARs filed contained the phrase "marijuana terminated." Between 2014 and 2018, "marijuana limited" SAR filings saw the largest increase. This data illustrates that the majority of SARs filed do not implicate the Cole Memo enforcement priorities.



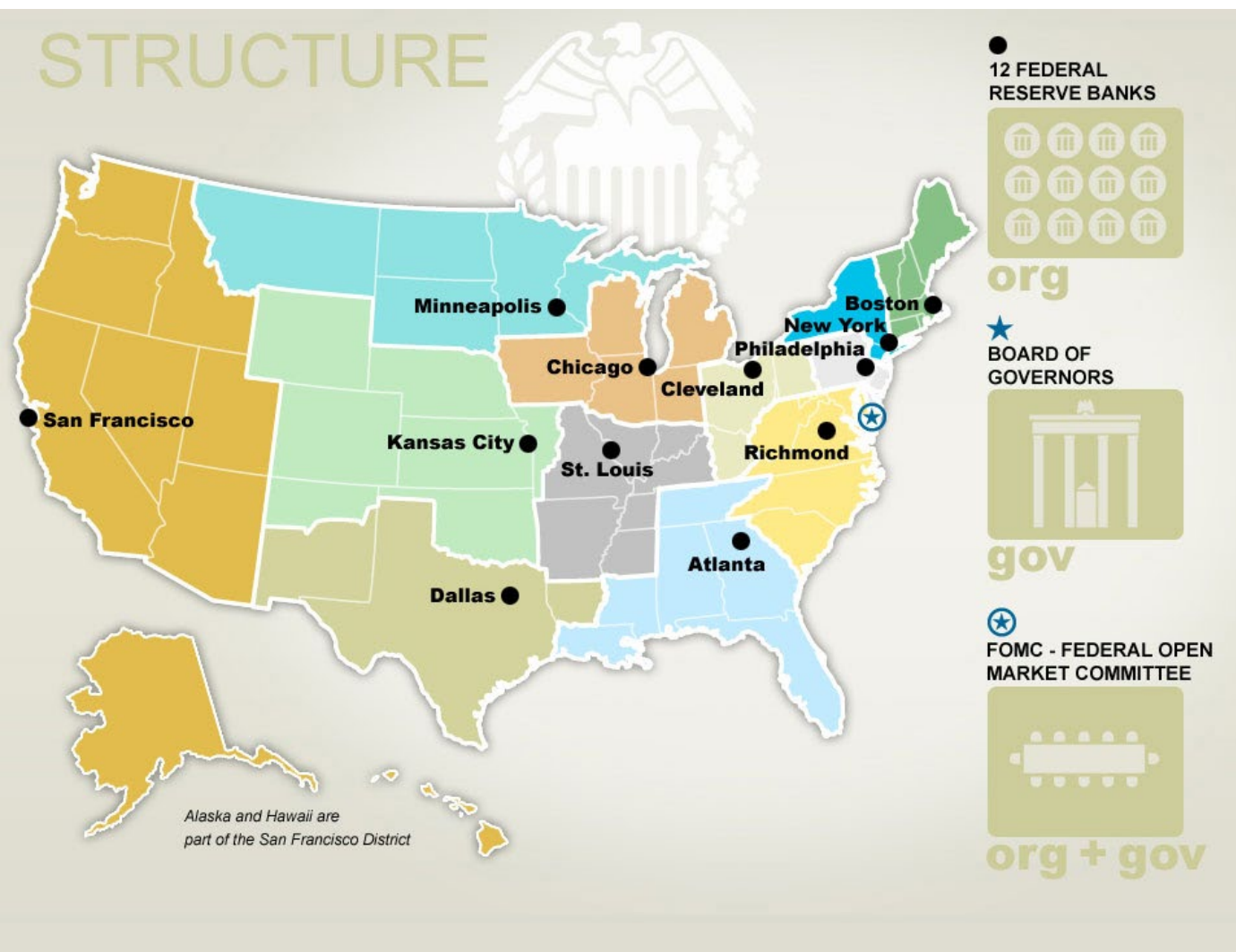
FinCEN
Financial Crimes Enforcement Network

Marijuana Banking Update

Depository Institutions (by type) Providing Banking Services to Marijuana Related Businesses¹
(SARs filed through 31 March 2019)



Hemp Guidance - The Federal Reserve Bank



Twelve Federal Reserve Districts of the Federal Reserve Bank operate in district boundaries which are based on economic considerations; the districts operate independently but under the supervision of the Federal Reserve Board of Governors. This structure allows for each Reserve Bank President to determine policy, within guidelines, for their regional bank.

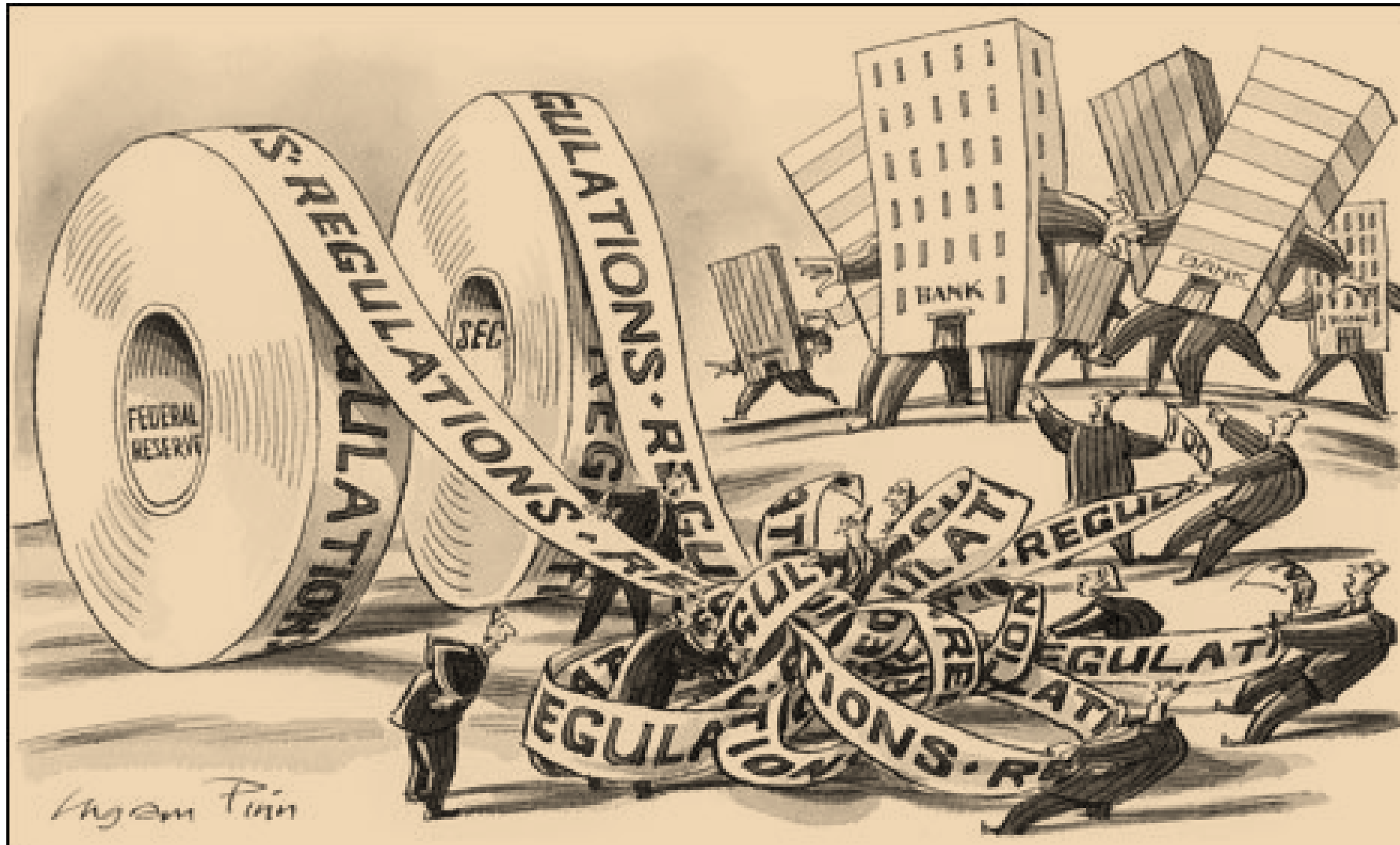
Chairman Jerome Powell said that the agency expects banks it supervises to apply “adequate policies, procedures, and processes to address appropriately the risks associated with the particular relationship as required under the Bank Secrecy Act,” and that includes hemp businesses.

“The decision to open, to close, or to decline a particular account is generally made by the financial institution without involvement of the federal regulator,” he wrote.

“The Board does not currently plan to issue guidance specific to this area, because it is our expectation institutions will apply their established policies, procedures and practices to their hemp industry customers, but we will continue to monitor this issue,” Powell said.

Map by Federal Reserve Bank of San Francisco; Quote Marijuana Moment

Cannabis Banking Compliance



Pic by: <http://advisoranalyst.advisoranalystgr.netdna-cdn.com/wp-content/uploads/2015/06/bank-regulation.jpg>

Hemp Banking Compliance - Considerations

Compliance items for consideration:

- ❖ Board Members – has the board been duly advised of the risks involved? e.g Plant becoming “hot” and then becoming outside of mandated THC limits.
- ❖ Insurance – FI’s should review their Directors & Officers Policy’s to ensure coverage for providing services to Hemp Businesses. Also, many of these business owners cannot find crop insurance, so there is a significant financial risk should there be an issue.
- ❖ Business Ownership – many of these businesses are owned by or affiliated with MRBs. Is the financial institution prepared to complete the necessary enhanced due diligence to ensure compliance with FinCEN guidance in those cases.
- ❖ Lending – are there impermissible direct financial interests; challenges for UCC and bankruptcy; collateral issues; can FIs legally take over entity due to default(?).

Hemp Banking Compliance - Considerations

Compliance items for consideration:

- ❖ Validation – Can you track the hemp seed's chain of custody to ensure it is Hemp and not Marijuana?
- ❖ Interstate Commerce – with the current confusion, many states have defaulted to the 2014 Farm Bill. Therefore, FIs must understand each state's rules should the business participate in interstate commerce and/or interstate transport of the product.
- ❖ Vendors – will current vendors work with the FI to provide Hemp banking?
- ❖ Industry – understanding the nuisances; issues of privacy/trade secrets; evaporating product (tracking inventory); knowing good vs. bad industry vendors/systems.

Hemp Banking Compliance – Considerations

To file or not to file?

Marijuana limited SAR- a FI files a marijuana limited SAR to report the transactions and activity of the business but reaffirms that the activity is consistent with state law and does not violate any of the eight federal priorities, such as sales to minors. However, this expectation reverses the normal approach to suspicious activity and imposes a new level of obligation. When it comes to marijuana-related businesses, the FinCEN guidance implies that it is the FI's responsibility for ensuring marijuana is not distributed to minors, a subtle but highly critical distinction that places a new level of regulatory oversight. If the FI opens an account for a marijuana-related business and does file an initial marijuana limited SAR to alert FinCEN and law enforcement that it is serving the business, the FI will have to continue to report as long as the account stays open because each transaction is possible money laundering.

Marijuana priority SAR - If the FI decides that one of the federal priorities has been violated, or that the business is not in full compliance with state law requirements, then it files a SAR that identifies the wrongful activity.

Marijuana termination SAR - Even though the business may be operating in compliance with state law and satisfying all eight priorities set forth by FinCEN, an FI might not feel comfortable maintaining a relationship. Or, as FinCEN puts it in the guidance, the FI might decide to terminate a relationship “in order to maintain an effective anti-money laundering program.” (This might be the only situation where FinCEN acknowledges de-risking as acceptable for managing AML risk.) If the bank does end its relationships with the business, then it reports that to FinCEN using the marijuana termination SAR. If the FI knows that the company has moved its accounts elsewhere, FinCEN also encourages the FI to take advantage of the 314(b)-information sharing process to notify the successor bank that it terminated its relationship with the business.

Hemp Market Opportunity



Graphic by: <http://1ev1it27w95q1s9gn1crubsn.wpengine.netdna-cdn.com/wp-content/uploads/2013/02/opportunity-magnet.jpg>

Hemp Market Opportunity

Hemp is on the rise as more products and services start to grow around this industry. In 2018 the Hemp market was \$4.41 Billion, now estimates are predicting \$14.67 Billion by 2026. The CBD market alone is slated to reach nearly \$2 billion by 2022, according to New Frontier Data.



Market Opportunity - States With Cannabis/Hemp Laws

The Marijuana Domino Effect

Totals:

Medical - **33 States** and the District of Columbia (D.C.)

Industrial Hemp - **41 States**

Low THC Concentration or CBD - **14 States**

Allow Adult/Rec Use - **11 States** and D.C.

More to come: More states have cannabis-related initiatives under consideration (2020) including: New York, New Jersey, and Delaware.



Market Opportunity– Green Gold Rush

In recent history, most cannabis or hemp businesses found investment funds through friends, family, or hard money lenders. With the rapid growth of the industry, the profile of potential investors is rapidly changing as well:

Nasdaq - even though most of the stocks are not covered by broker dealers, there are a handful of hemp-related companies listed on Nasdaq, such as GW Pharmaceuticals (GWPH),

Toronto Stock Exchange (TSX) or the Canadian Securities Exchange (CSE) - There are over 400 publicly traded cannabis companies at this point. Charlotte's Web is one of the most notable hemp-stocks on TSX.

Private equity, hemp-focused investment funds, and specialized brokers - with groups such as Privateer (which received an infusion of capital from Founders Fund), Chardon Capital, ArcView, Canopy, Viridian, etc., many cannabis and hemp businesses now have an expanding network where they can shop their deal.

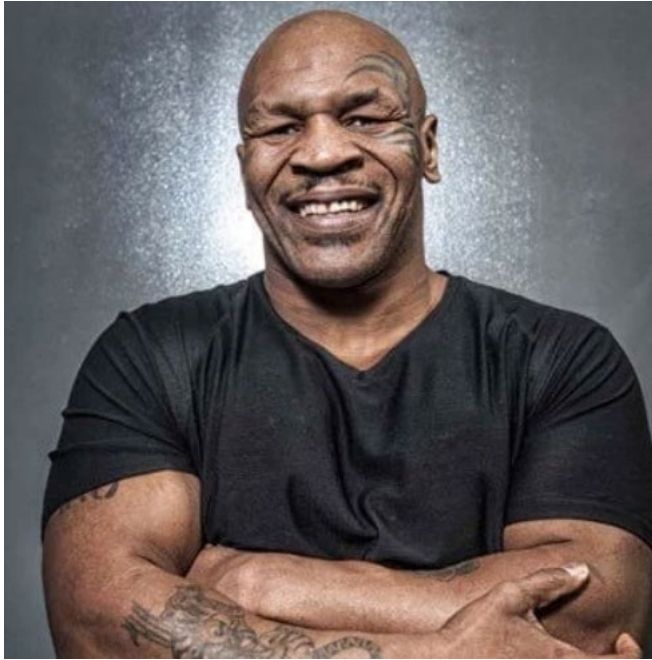
Loans - not yet, but it is only a matter of time. Until then, family and friends (and hard money lenders) will remain the primary source of loans to the hemp industry.



Information provided by The Street, <https://www.thestreet.com/story/13537433/1/how-to-invest-in-nasdaq-traded-marijuana-stocks-and-private-pot-companies.html>

Graphic by: <http://images.clipartpanda.com/money-tree-clipart-yioeBr5RT.jpeg>

Hemp Market Opportunity – Celebrity Green Gold Rush



Mike Tyson with his company Tyson Holistic Holdings (HHH) also owns Tyson Ranch, his own Marijuana strain company and recently launched his CBD brand named CopperGel® which includes roll-on relief items. Mike Tyson is a celebrity who is quoted for his CBD relief products passion.

<https://www.binoidcbd.com/blogs/news/famous-celebrities-who-use-or-endorse-cbd-oil>



Gwyneth Paltrow's Goop branch has teamed up with marijuana dispensary chain MedMen to unveil a specially curated Goop wall at its newest recreational boutique. Also Ashley Lewis who oversaw Goop's wellness products, and Meredith Schroeder, a former buyer at Goop, recently launched a CBD company Fleur Marché (French for "flower market").

<https://www.forbes.com/sites/katieshapiro/2018/06/13/gwyneth-paltrows-goop-gets-into-the-cannabis-game-with-medmen-dispensary-collaboration/#270aa8ea38dd>



Tom Hanks worked with Cornell University to study how CBD can help those with Type 2 Diabetes. "The first time I ever tried CBD was to help sooth my anxiety. I was fed up with taking various pills to try and make me 'better'... It wasn't how I wanted to live my life anymore. It was a huge relief for me to feel like myself, yet the edge was gone.... "The benefits of CBD oil are unlike anything any pill or medication can do."

Hemp Market Opportunities – Gallup Poll

According to a May 2019 Gallup Poll, nearly four in 10 Americans think Cannabidiol (CBD) oils should be legally available for adults as an over-the-counter purchase while another 21% think people should only be able to buy them with a doctor's prescription. Just 2% say they should not be available, while 36% are not familiar with the product.

- ❖ 39% in U.S. think CBD should be sold over the counter
- ❖ 21% say it should be sold with a prescription while 36% not familiar
- ❖ One-third of those aware of CBD think it has a lot of benefits

Perceived Health Benefits of CBD Oils -- Based on U.S Adults Who Are Familiar With CBD^

From what you know about CBD oils, do you think they offer a lot of health benefits, some health benefits, only a few health benefits or no health benefits?

	A lot of benefits	Some benefits	Only a few benefits	No health benefits	No opinion
	%	%	%	%	%
Total	33	45	14	4	3
Age					
18 to 29	41	41	10	5	1
30 to 49	35	41	14	4	6
50 to 64	31	51	14	2	2
65+	24	50	18	5	2
Familiarity with CBD					
Very familiar	64	29	5	1	*
Somewhat familiar	27	53	13	4	3
Not too familiar	21	44	24	5	5

^ Based on 64% of Americans who are "very," "somewhat" or "not too familiar" with CBD oils

GALLUP, MAY 15-30, 2019

Questions?

Thank you