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CREDIT ECONOMY / INCLUDED

The INCLUDED measure is intended to show the percent of local residents who have access to credit from traditional financial lenders. One way to measure credit inclusion is to identify the credit economy, which is defined as the percent of adult residents in a geography, age 18 years or above, who are estimated to have a credit file and a credit score with a major credit reporting organization. See About the Data for details.

The bar chart on the facing page shows INCLUDED values for the U.S., 2007–2016. The two maps show values at the state and county levels for 2016. The legend on this page applies to both maps.
Due to data unavailability, the 2016 county-level Included and Not Included indicators are estimated from 2015 Census data. See About the Data for details.
CREDIT ECONOMY / NOT INCLUDED

The NOT INCLUDED measure is simply the reverse of the INCLUDED measure. It is presented for the convenience of stakeholders whose focus is on those who are not part of the credit economy.

The bar chart on the facing page shows NOT INCLUDED values for the U.S., 2007–2016. The two maps show values at the state and county levels for 2016. The legend on this page applies to both maps.

U.S. 2016

Data Source: FRBNY Consumer Credit Panel / Equifax
Not to scale
Due to data unavailability, the 2016 county-level Included and Not Included indicators are estimated from 2015 Census data. See About the Data for details.
AVAILABLE CREDIT / REVOLVING CREDIT

Being included in the local credit economy will not ensure that an individual may obtain credit in a timely way or at all. The REVOLVING CREDIT indicator measures the percent of individuals in the credit economy who are able to obtain credit, up to a limit and without having to reapply and requalify for a new loan, through the use of revolving credit products such as credit cards or home equity lines of credit.

The bar chart on the facing page shows REVOLVING CREDIT values for the U.S., 2007–2016. The two maps show values at the state and county levels for 2016. The legend on this page applies to both maps.

U.S. 2016

Data Source: FRBNY Consumer Credit Panel / Equifax

Not to scale
U.S. Credit Economy, Revolving Credit, 2007–2016

Data Source: FRBNY Consumer Credit Panel / Equifax
AVAILABLE CREDIT / UTILIZATION

Revolving credit options may be used to incur credit at one's own discretion provided there is capacity within one's credit limits. The UTILIZATION measure calculates the percent of individuals in the credit economy who have 70 percent or more unused capacity on their credit lines as of the year-end in discussion.

The bar chart on the facing page shows UTILIZATION values for the U.S., 2007–2016. The two maps show values at the state and county levels for 2016. The legend on this page applies to both maps.
U.S. Credit Economy, Utilization, 2007–2016

Data Source: FRBNY Consumer Credit Panel / Equifax

Not to scale
CREDIT QUALITY / ON-TIME PAYERS

Another indicator of individuals’ ability to access credit is their payment history. The ON-TIME PAYERS indicator measures the percent of credit economy residents who were current on all credit obligations for each quarter of the calendar year.

The bar chart on the facing page shows ON-TIME PAYERS values for the U.S., 2007–2016. The two maps show values at the state and county levels for 2016. The legend on this page applies to both maps.

U.S. 2016

Data Source: FRBNY Consumer Credit Panel / Equifax

Not to scale

Data Source: FRBNY Consumer Credit Panel / Equifax

Not to scale
Another indicator of individuals’ ability to access credit in a timely way or at all and at favorable terms is their credit risk score. We use the Equifax Risk Score 3.0, which ranges in values from 280 to 850. Individuals with higher scores are viewed as better credit risks than those with lower scores. While classifications vary in the industry and in practice, we designate risk scores of 720 and higher as prime. In the PRIME CREDITS indicator map, we display the percent of the credit economy in that geography with prime credit risk scores.

The bar chart on the facing page shows PRIME CREDITS values for the U.S., 2007–2016. The two maps show values at the state and county levels for 2016. The legend on this page applies to both maps.

**U.S. 2016**

<table>
<thead>
<tr>
<th>≥59%</th>
<th>55%–58%</th>
<th>50%–54%</th>
<th>45%–49%</th>
<th>30%–44%</th>
<th>&lt;30%</th>
<th>UNMAPPED</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>51%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Source: FRBNY Consumer Credit Panel / Equifax
U.S. Credit Economy, Prime Credits, 2007–2016

Data Source: FRBNY Consumer Credit Panel / Equifax

Not to scale
CREDIT QUALITY / SUBPRIME CREDITS

The SUBPRIME CREDITS indicator displays the percent of the credit economy in that geography that has a credit risk score of less than 660. As noted, we use the Equifax Risk Score 3.0, which ranges in values from 280 to 850. Individuals with higher scores are viewed as better credit risks than those with lower scores. Classifications vary in the industry and in practice.

The bar chart on the facing page shows SUBPRIME CREDITS values for the U.S., 2007–2016. The two maps show values at the state and county levels for 2016. The legend on this page applies to both maps.

U.S. 2016

Data Source: FRBNY Consumer Credit Panel / Equifax

Not to scale
U.S. Credit Economy, Subprime Credits, 2007–2016

Data Source: FRBNY Consumer Credit Panel / Equifax
STRESS MAPS
GOOD PAYMENT HISTORY

Credit distress may limit access to credit from traditional lenders and even deny residents economic opportunities. We use a five-category scale (see About the Data) to characterize how well credit economy residents are managing their debt. We sort credit economy individuals by the quarterly payment history of their combined credit obligations from year-end 2015 to year-end 2016.

The GOOD PAYMENT HISTORY indicator is the percent of credit economy residents who were never more than sixty days past due during any of the quarters analyzed. The bar chart on the facing page shows GOOD PAYMENT HISTORY values for the U.S., 2007–2016. The two maps show values at the state and county levels for 2016. The legend on this page applies to both maps.

U.S. 2016

Data Source: FRBNY Consumer Credit Panel / Equifax
Not to scale
U.S. Credit Economy, Good Payment History, 2007–2016

Data Source: FRBNY Consumer Credit Panel / Equifax

Not to scale
CONSISTENTLY DELINQUENT PAYMENT HISTORY

Credit distress may limit access to credit from traditional lenders and even deny residents economic opportunities. We use a five-category scale (see About the Data) to characterize how well credit economy residents have managed their debt. We sort credit economy individuals by the quarterly payment history of their combined credit obligations from year-end 2015 to year-end 2016.

The CONSISTENTLY DELINQUENT HISTORY indicator maps the percent of individuals in the credit economy who were more than sixty days past due during all quarters of the period analyzed. The bar chart on the facing page shows CONSISTENTLY DELINQUENT HISTORY values for the U.S., 2007–2016. The two maps show values at the state and county levels for 2016. The legend on this page applies to both maps.

U.S. 2016

Data Source: FRBNY Consumer Credit Panel / Equifax
DATA SOURCES

The Community Credit measures have two data sources. For the credit values, we use FRBNY Consumer Credit Panel/Equifax (CCP), which consists of detailed Equifax credit report data for a unique longitudinal quarterly panel of individuals and households. The panel is a five percent nationally representative sample of all individuals with a social security number and a credit report. All information is anonymized. Data are available quarterly, and year-end (Q4) values are used to calculate all indicators unless otherwise noted. For more information about the CCP, see the Federal Reserve Bank of New York Staff Report, An Introduction to the FRBNY Consumer Credit Panel.

For the U.S. population values needed to calculate the Included and Not-Included measures, we use population estimates provided by the U.S. Census Bureau's Population Estimates Program (PEP). Due to data unavailability, the 2016 county-level estimates use 2015 PEP adult population estimates.

The maps exclude geographies with fewer than 100 observations in the CCP data as of Q4 2016. As a result, we do not display values for 178 counties out of the 3,142 Census-identified counties and equivalents in the U.S. For the website interactive, the cut-off threshold is also 100 observations. However, a threshold of 500 observations is used to report number values for all measures.

For 2016, our sample size was 11.16 million U.S. individuals. Because this panel is a five percent nationally representative sample, our sample size represents 223.26 million adult residents in the United States.

For Puerto Rico, our sample size was 118,455 individuals, which represents 2.37 million adult residents on the island.

DATA NOTES

Credit Economy: The credit economy for any geography is estimated as 20 times the number of people with a credit score in the CCP for that geography.

Adult Population: Adults are defined as age 18 and above

Revolving Credit Products: An individual in the credit economy is counted as holding a revolving credit product if he or she has a bankcard account that has a credit limit greater than $0 and/or a revolving HELOC account that has a credit limit greater than $0. We do not include store-specific credit cards because their use is limited to specific products and services offered by the respective stores.

Utilization Rate: The utilization rate for an individual is computed as the sum of all revolving account balances divided by the sum of credit limits for all revolving accounts.

Credit Score Status: Credit score is the Equifax Risk Score 3.0. It was developed by Equifax and its values range from 280 to 850. Individuals with higher scores are viewed as better credit risks than those with lower scores. We use score classifications of less than 660 as subprime, scores between 660 and 719 as near prime, and scores 720 and higher as prime. However, classifications vary in the industry and in practice.

NOTES ON CLASS BREAK RANGES FOR THE MAPS
For the sake of visual clarity, the class break ranges on the maps are displayed as whole integers. However, the underlying data are sorted and mapped using up to two decimal places (rounded up from six decimal places). So how do they correspond?

We used the following convention, which is best explained with an example. Assume the following class break ranges from the not-included maps:

<table>
<thead>
<tr>
<th>Shading on the Maps</th>
<th>≥15%</th>
<th>11%–14%</th>
<th>9%–10%</th>
<th>7%–8%</th>
<th>4%–6%</th>
<th>&lt;4%</th>
<th>Unmapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map Legend</td>
<td>100%</td>
<td>99.99–14.99</td>
<td>99.00–10.99</td>
<td>97.00–8.99</td>
<td>94.00–6.99</td>
<td>90.00%</td>
<td>Unmapped</td>
</tr>
<tr>
<td>Corresponding Data Values for the Geography</td>
<td>≥15.00%</td>
<td>14.00–14.99</td>
<td>10.00–10.99</td>
<td>8.00–8.99</td>
<td>4.00–6.99</td>
<td>&lt;4.00%</td>
<td></td>
</tr>
</tbody>
</table>

For example, a county with the value of 3.88 will be in the class labeled <4 percent. A county with the value of 4.22 percent will be in the class labeled 4 to 6 percent. A county with the value of 6.99 percent will also be in the class labeled 4 to 6 percent. However, a county with the value of 7.01 percent will be in the class labeled 7 to 8 percent.

**COMMUNITY CREDIT MEASURES**

**Credit Economy Included**: CCP-based estimate of the number of individuals in the population with a credit score as of year-end (multiplied by 20) divided by the Census estimate of the population 18 or older for that year. The 2016 county-level estimates, however, use a denominator of the 2015 adult population estimate due to data unavailability. Due to differences between CCP and Census data, this measure is top coded at 100 percent.

**Credit Economy Not-Included**: 100 percent minus the Included rate. Due to differences between CCP and Census data, this measure is bottom coded at zero percent. As for Credit Economy Included, 2016 county-level data use 2015 adult population estimates as the denominator.

**Revolving Credit**: Number of individuals with a revolving credit product, divided by the number of individuals in the credit economy.

**Utilization Limits**: Number of individuals with a revolving credit product and a utilization rate of 30 percent or less, divided by the number of individuals in the credit economy.

**On-Time Payers**: Number of individuals in the credit economy who were current on all debt for the four quarters of 2016, divided by the number of individuals in the credit economy.

**Prime Credits**: Number of individuals in the credit economy with an Equifax Risk Score of 720 or higher, divided by the number of individuals in the credit economy.

**Subprime Credits**: Number of individuals in the credit economy with an Equifax Risk Score below 660, divided by the number of individuals in the credit economy.
Credit Stress: For each individual in the credit economy, credit stress status is determined based on year-end data. We first determine whether the person was 60+ days past due on any account as of year-end 2016. Then, using payment history on all accounts for each of the preceding four quarters (2015:Q4, 2016:Q1, 2016:Q2, and 2016:Q3), we categorize individuals based on the following three filters:

- Was the person 60+ days past due on any account as of year-end 2016 (i.e., at the end of 2016:Q4)?
- Was the person 60+ days past due during any of the preceding four quarters?
- Was the person 60+ days past due during all preceding four quarters?

Using these filters, we classify each individual in the credit economy at year-end 2016 into one of the following five mutually exclusive credit stress categories:

- **Good History**: Individual was never 60+ days past due during any of the quarters analyzed.
- **Improved History**: Individual was not 60+ days past due as of year-end 2016, but was 60+ days past due at some point during the preceding four quarters.
- **Declining/ Newly Delinquent History**: Individual was 60+ days past due as of year-end 2016, but was not 60+ days past due during any of the preceding four quarters.
- **Struggling History**: Individual was 60+ days past due as of year-end 2016 and was 60+ days past due during some, but not all, of the preceding four quarters.
- **Consistently Delinquent History**: Individual was 60+ days past due during all of the quarters analyzed.

<table>
<thead>
<tr>
<th>Weak</th>
<th>Struggling</th>
<th>Declining</th>
<th>Improved</th>
<th>Good Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>60+ days overdue for all 4 quarters of previous year</td>
<td>60+ days overdue for 1–3 quarters of previous years</td>
<td>Deteriorated from less than 60 days overdue to 60+ days overdue</td>
<td>Improved from 60+ days overdue to current or less than 60 days overdue</td>
<td>Current or less than 60 days overdue</td>
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