Outlook for the US consumer

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Apollo Global Management

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Overview

Reasons to be bullish on the US consumer

1. Job growth is still solid, jobless claims low
2. Net worth and excess savings still high
3. Wage growth still solid, real wage growth is positive

Reasons to be bearish on the US consumer

1. The pace of employment growth is slowing
2. Households running out of excess savings
3. Delinquency rates trending higher for credit cards and auto loans

Source: Apollo Chief Economist
Table of contents:

• Overview
• Leading indictors of consumer spending
• Health of the household sector balance sheet
• Outlook for spending on housing
• Outlook for spending on cars
• Outlook for spending on restaurants
• Outlook for spending on travel
• Outlook for spending on other consumer goods
• Conclusions
Overview
Weekly data for same store retail sales

Source: Redbook Research, Haver Analytics, Apollo Chief Economist
Weekly data for same store retail sales

Source: Redbook, Haver Analytics, Apollo Chief Economist
Retail sales continues to slide

Retail Sales & Food Services Excluding Motor Vehicles & Parts Dealers

Fed starts raising rates

Source: Census Bureau, Haver Analytics, Apollo Chief Economist
Employment growth keeps slowing

Source: BLS, Haver Analytics, Apollo Chief Economist
Share of consumer spending on services is coming back

Source: BEA, Haver Analytics, Apollo Chief Economist
The share of spending on services declined during the pandemic.
Change in inflation-adjusted consumer expenditures on goods and services

Source: BEA, Haver Analytics, Apollo Chief Economist
Where are different categories of retail spending today compared with February 2020?

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total</td>
<td>100</td>
<td>94</td>
<td>83</td>
<td>104</td>
<td>112</td>
<td>120</td>
<td>125</td>
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<td>132</td>
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<tr>
<td>Department Stores excl Leased Departments</td>
<td>100</td>
<td>81</td>
<td>57</td>
<td>88</td>
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<td>106</td>
<td>103</td>
<td>106</td>
<td>110</td>
<td>100</td>
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<tr>
<td>Electronics &amp; Appliance Stores</td>
<td>100</td>
<td>82</td>
<td>46</td>
<td>80</td>
<td>99</td>
<td>115</td>
<td>101</td>
<td>106</td>
<td>106</td>
<td>107</td>
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<tr>
<td>Furniture &amp; Home Furn &amp; Electronics/Appliance Stores</td>
<td>100</td>
<td>80</td>
<td>42</td>
<td>90</td>
<td>108</td>
<td>115</td>
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<td>112</td>
<td>116</td>
<td>109</td>
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<td>Furniture &amp; Home Furnishing Stores</td>
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<td>78</td>
<td>39</td>
<td>97</td>
<td>115</td>
<td>115</td>
<td>115</td>
<td>116</td>
<td>123</td>
<td>111</td>
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<td>Clothing &amp; Accessory Stores</td>
<td>100</td>
<td>50</td>
<td>13</td>
<td>75</td>
<td>91</td>
<td>113</td>
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<td>General Merchandise Stores</td>
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<td>92</td>
<td>101</td>
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<td>Health &amp; Personal Care Stores</td>
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<td>89</td>
<td>98</td>
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<td>111</td>
<td>111</td>
<td>113</td>
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<td>120</td>
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<tr>
<td>Food &amp; Beverage Stores</td>
<td>100</td>
<td>126</td>
<td>109</td>
<td>109</td>
<td>110</td>
<td>114</td>
<td>120</td>
<td>124</td>
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<td>125</td>
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<td>Grocery Stores</td>
<td>100</td>
<td>128</td>
<td>110</td>
<td>109</td>
<td>109</td>
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<td>124</td>
<td>127</td>
<td>126</td>
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<tr>
<td>Sporting Goods, Hobby, Book &amp; Music Stores</td>
<td>100</td>
<td>82</td>
<td>55</td>
<td>121</td>
<td>126</td>
<td>128</td>
<td>121</td>
<td>128</td>
<td>130</td>
<td>126</td>
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<td>Gasoline Stations</td>
<td>100</td>
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<td>65</td>
<td>81</td>
<td>97</td>
<td>110</td>
<td>128</td>
<td>164</td>
<td>136</td>
<td>127</td>
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<tr>
<td>Motor Vehicle Dealers</td>
<td>100</td>
<td>72</td>
<td>61</td>
<td>103</td>
<td>111</td>
<td>124</td>
<td>125</td>
<td>122</td>
<td>128</td>
<td>128</td>
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<tr>
<td>Building Materials, Garden Equipment &amp; Supply Dealers</td>
<td>100</td>
<td>100</td>
<td>99</td>
<td>114</td>
<td>120</td>
<td>124</td>
<td>131</td>
<td>133</td>
<td>133</td>
<td>129</td>
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<tr>
<td>Motor Vehicle &amp; Parts Dealers</td>
<td>100</td>
<td>74</td>
<td>63</td>
<td>104</td>
<td>111</td>
<td>124</td>
<td>125</td>
<td>123</td>
<td>129</td>
<td>129</td>
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<tr>
<td>Food Services &amp; Drinking Places</td>
<td>100</td>
<td>70</td>
<td>45</td>
<td>77</td>
<td>85</td>
<td>107</td>
<td>105</td>
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<tr>
<td>Retail Sales &amp; Food Services</td>
<td>100</td>
<td>91</td>
<td>78</td>
<td>100</td>
<td>108</td>
<td>118</td>
<td>123</td>
<td>129</td>
<td>132</td>
<td>131</td>
</tr>
<tr>
<td>Retail Sales &amp; Food Services Excl Motor Vehicles &amp; Parts Dealers</td>
<td>100</td>
<td>95</td>
<td>81</td>
<td>100</td>
<td>108</td>
<td>117</td>
<td>122</td>
<td>131</td>
<td>133</td>
<td>132</td>
</tr>
<tr>
<td>Total Excl Motor Vehicle &amp; Parts Dealers</td>
<td>100</td>
<td>100</td>
<td>88</td>
<td>104</td>
<td>112</td>
<td>119</td>
<td>125</td>
<td>133</td>
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<td>132</td>
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<tr>
<td>Miscellaneous Stores Retailers</td>
<td>100</td>
<td>85</td>
<td>62</td>
<td>92</td>
<td>104</td>
<td>115</td>
<td>124</td>
<td>133</td>
<td>135</td>
<td>135</td>
</tr>
<tr>
<td>Automotive Parts, Acc &amp; Tire Stores</td>
<td>100</td>
<td>91</td>
<td>86</td>
<td>114</td>
<td>108</td>
<td>120</td>
<td>128</td>
<td>131</td>
<td>135</td>
<td>142</td>
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<tr>
<td>Nonstore Retailers/online shopping</td>
<td>100</td>
<td>106</td>
<td>119</td>
<td>127</td>
<td>137</td>
<td>143</td>
<td>157</td>
<td>158</td>
<td>165</td>
<td>173</td>
</tr>
</tbody>
</table>

Note: Nominal consumer spending shown. Source: Census Bureau/Haver Analytics, Apollo Chief Economist.
Macro factors driving consumer spending
Total employment is now 4 mn jobs above February 2020 levels

Source: BLS, Apollo Chief Economist
Net worth of the US household sector is near record highs

Source: FRB, Haver, Apollo Chief Economist
Households are running down their excess savings, but still about $1.2trn left

Note: Bloomberg, Apollo Chief Economist
Household savings across different income groups

Deposits held by income percentile

Source: FRB, Haver Analytics, Apollo Chief Economist
Household debt service payments as a share of income

Source: FRB, Haver, Apollo Chief Economist
Inflation-adjusted incomes per capita below pre-pandemic trend
Wage inflation is sticky at 4.5%

Source: BLS, Apollo Chief Economist. Note: Low wage workers are defined as the bottom third percentile in the wage distribution, mid wage workers as the mid third percentile and high wage workers as top third percentile.
Wage growth still elevated across the income distribution

Source: Federal Reserve Bank of Atlanta, Haver, Apollo Chief Economist
Employment for workers, by education

Source: BLS, Haver, Apollo Chief Economist
The composition of employment, by skill

Source: BLS, Haver, Apollo Chief Economist

Note: High-skill occupational categories are management and financial operations and Professionals and related occupations; Medium-skill categories are sales and related occupations, office administrative support, construction, installation and repair, production occupations, and transportation and material moving; Low-skill categories are service occupations and farming, fishing, and forestry.
People age 55 and above account for 41% of total consumer spending.
US consumer makes up 17% of global GDP

Source: Haver, World Bank, Apollo Chief Economist
Health of the household sector balance sheet
Foreclosures and bankruptcies starting to rise
Credit card delinquency rate higher for younger borrowers

Source: New York Fed Consumer Credit Panel / Equifax, Apollo Chief Economist
Auto loan transitions to serious delinquency approaching 2008 levels

Source: FRBNY Consumer Credit Panel, Equifax, Haver Analytics, Apollo Chief Economist
Interest rate on auto loans

Source: FRB, Bloomberg, Apollo Chief Economist
Interest rate on credit cards

Credit Cards Assessed Interest

Fed starts raising rates

Source: FRB, Haver Analytics, Apollo Chief Economist
Household sector leverage well below 2007 levels

Source: FRB, Haver, Apollo Chief Economist
## Delinquency rates for auto loans and credit cards

### Auto Loans

<table>
<thead>
<tr>
<th></th>
<th>June 2023</th>
<th>May 2023</th>
<th>June 2022</th>
<th>June 2019</th>
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</thead>
<tbody>
<tr>
<td>Super Prime</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
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<tr>
<td>Prime plus</td>
<td>0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
</tr>
<tr>
<td>Prime</td>
<td>0.13%</td>
<td>0.14%</td>
<td>0.12%</td>
<td>0.12%</td>
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<tr>
<td>Near prime</td>
<td>0.55%</td>
<td>0.59%</td>
<td>0.48%</td>
<td>0.39%</td>
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<tr>
<td>Subprime</td>
<td>12.30%</td>
<td>11.84%</td>
<td>11.06%</td>
<td>7.39%</td>
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<tr>
<td>Total</td>
<td>1.94%</td>
<td>1.86%</td>
<td>1.63%</td>
<td>1.23%</td>
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</table>

### Credit Cards

<table>
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<tr>
<th></th>
<th>June 2023</th>
<th>May 2023</th>
<th>June 2022</th>
<th>June 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super Prime</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Prime plus</td>
<td>0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
</tr>
<tr>
<td>Prime</td>
<td>0.18%</td>
<td>0.20%</td>
<td>0.17%</td>
<td>0.16%</td>
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<tr>
<td>Near prime</td>
<td>1.21%</td>
<td>1.20%</td>
<td>0.94%</td>
<td>1.07%</td>
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<tr>
<td>Subprime</td>
<td>18.31%</td>
<td>19.04%</td>
<td>15.21%</td>
<td>17.39%</td>
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<tr>
<td>Total</td>
<td>2.02%</td>
<td>2.06%</td>
<td>1.53%</td>
<td>1.71%</td>
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</table>

### Mortgages

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<tr>
<th>Distribution of Delinquency</th>
<th>June 2023</th>
<th>May 2023</th>
<th>June 2022</th>
<th>June 2019</th>
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<tr>
<td>Current</td>
<td>95.3%</td>
<td>95.4%</td>
<td>95.8%</td>
<td>94.0%</td>
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<td>30-59 DPD</td>
<td>2.7%</td>
<td>2.5%</td>
<td>2.2%</td>
<td>3.3%</td>
</tr>
<tr>
<td>60-89 DPD</td>
<td>1.3%</td>
<td>1.3%</td>
<td>1.2%</td>
<td>1.7%</td>
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<tr>
<td>90+</td>
<td>0.7%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>0.9%</td>
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<tr>
<td>Foreclosure</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

Source: Transunion Monthly Industry Snapshot June 2023
Household liabilities to assets

Debt/Asset ratio of the household sector

Liabilities to asset ratio

Source: FRB, Haver, Apollo Chief Economist
Banks less willing to lend to consumers

Source: FRB, Haver, Apollo Chief Economist
Consumer confidence still solid

Source: Conference Board, Haver Analytics, Apollo Chief Economist
Consumer confidence across generations

Source: Conference Board, Haver Analytics, Apollo Chief Economist
Consumer sentiment across the income distribution

Source: University of Michigan, Haver Analytics, Apollo Chief Economist
Households less worried about losing their jobs

Source: University of Michigan, Haver Analytics, Apollo Chief Economist
Higher income households starting to worry about whether they can make minimum debt payments

Source: FRBNY, Haver Analytics, Apollo Chief Economist. Note: The data shows the average probability of not being able to make minimum debt payment over the next three months for people earning (income) greater than 100k.
Outlook for spending on housing
Home price inflation coming down

Source: Haver, Apollo Chief Economist
Housing inflation

Source: Zillow, BLS, Haver Analytics, Apollo Chief Economist
Purchase and refi activity during the pandemic driven by households with high credit scores

Source: FRBNY Consumer Credit Panel, Equifax, Haver Analytics, Apollo Chief Economist.
US mortgage credit originations, by credit score

Source: FRBNY Consumer Credit Panel, Equifax, Haver Analytics, Apollo Chief Economist.
Mortgage origination falling across age groups
Households have less debt in their homes:
Homeowner’s equity near highest level in decades
Consumers’ outlook for house prices improving a bit

Source: University of Michigan, Haver Analytics, Apollo Chief Economist
Outlook for spending on cars
Motor vehicle sales, from retail sales data

Retail Sales, SA

Source: Census Bureau, Apollo Chief Economist
Interest rates on auto loans have increased less than the Fed funds rate

Source: FRB, Haver, Apollo Chief Economist
Average amount financed for new and used car loans

Source: FRB, Haver, Apollo Chief Economist
Sentiment improving among car buyers

Source: University of Michigan, Haver Analytics, Apollo Chief Economist
Declining car prices is helping demand
Outlook for spending on restaurants
Restaurant demand declining

Restaurant Performance Index (>100=Expansion)

Source: National Restaurant Association, Haver, Apollo Chief Economist
Daily data for restaurant bookings

United States seated diners

Source: OpenTable, Apollo Chief Economist
Daily data for restaurant bookings, different cities

Source: OpenTable, Apollo Chief Economist
Employment in restaurants and bars at pre-pandemic levels

Source: BLS, Haver, Apollo Chief Economist
Employment growth for Eating and Drinking places

Source: BLS, Haver, Apollo Chief Economist
Growth in restaurant employment, by type of restaurant

Restaurant Employment by Segment, NSA

- Full-Service Restaurants
- Cafeterias, Grill Buffets & Buffets
- Snack & Nonalcoholic Beverage Bars
- Food Service Contractors
- Caterers & Mobile Food Services
- Drinking Places, Alcoholic Beverages
- Limited-Service Restaurants

Source: BLS, Haver, Apollo Chief Economist
Service sector spending significantly above pre-pandemic levels

Source: BEA, Haver, Apollo Chief Economist
Stock price index for restaurants and bars

Source: Bloomberg, Apollo Chief Economist
Outlook for spending on travel
TSA: US air travel still strong

Source: TSA, Apollo Chief Economist
US air travel still strong

Source: TSA, Bloomberg, Apollo Chief Economist
Global air traffic still high
Vacation intentions: Within the US, starting to soften

% respondents, SA

Vacation intended within 6 months:

- Domestic

Source: Conference Board, Apollo Chief Economist
Vacation intentions to a foreign country

% respondents, SA

Vacation intended within 6 months:
- Foreign country

Source: Conference Board, Apollo Chief Economist
Vacation intentions: By plane

Source: Conference Board, Apollo Chief Economist
Vacation intentions: By car

% respondents, SA

Vacation intended within 6 months:

- By automobile

Source: Conference Board, Apollo Chief Economist
Air travel during holidays, comparing 2023 with prior years

Air travel during holidays: Mon-Sun

Source: TSA, Apollo Chief Economist
Las Vegas visitor volumes have fully recovered

Source: Las Vegas Convention and Visitors Authority, Apollo Chief Economist
NYC mobility indicators

Source: MTA, Apollo Chief Economist
Weekly data for hotel demand

Source: STR, Haver Analytics, Apollo Chief Economist
Weekly data for hotel demand

Hotel occupancy rate (%)

Source: STR, Haver Analytics, Apollo Chief Economist
Weekly data for hotel demand

Hotels: average daily rate

Source: STR, Haver Analytics, Apollo Chief Economist
Weekly data for hotel demand

Hotels: revenue per available room (US$)

Source: STR, Haver Analytics, Apollo Chief Economist
Hotel prices are now above pre-pandemic levels

Source: Timessquarenyc.org, Apollo Chief Economist
Outlook for spending on other consumer goods
Tightening lending standards will weigh on consumer spending

Source: FRB, Haver, Apollo Chief Economist
US consumer still solid, some weakness emerging in furniture and electronics sales

Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.
US consumer credit card spending

Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.
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US consumer credit card spending

% difference from baseline

Change in credit card spending

- Amusement, Gambling & Recreation Industry
- Accommodation
- Food Services and Drinking Places
- Repair and Maintenance

Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.
Health care spending at pre-pandemic trend
Retail sales across different spending categories

Source: Census Bureau, Haver, Apollo Chief Economist
Some slowdown in sales of Furniture and Electronics and appliances, likely because these items require financing.
E-commerce retail sales stabilizing

Source: Census Bureau, Haver, Apollo Chief Economist
Online shopping as a share of total consumer spending

Source: Census Bureau, Haver, Apollo Chief Economist
Consumer spending & transactions: Casual dining

Source: Facteus, Bloomberg, Apollo Chief Economist
Consumer spending & transactions: Cosmetics, beauty supplies, and perfume stores
Consumer spending & transactions: Cruise travel

% yoy, 7d average

Source: Facteus, Bloomberg, Apollo Chief Economist
Consumer spending & transactions: General Retail

% yoy, 7d average

Source: Facteus, Bloomberg, Apollo Chief Economist
Consumer spending & transactions: Moving, storage and Freight services

Source: Facteus, Bloomberg, Apollo Chief Economist
Consumer spending & transactions: Online travel

% yoy, 7d average

Source: Facteus, Bloomberg, Apollo Chief Economist
Consumer spending & transactions: Package Shipping and Logistics

Source: Facteus, Bloomberg, Apollo Chief Economist
Consumer spending & transactions: Ride Share

% yoy, 7d average

Source: Facteus, Bloomberg, Apollo Chief Economist
Consumer spending & transactions: Sports Betting

% yoy, 7d average

Source: Facteus, Bloomberg, Apollo Chief Economist
Conclusions
Overview

Reasons to be bullish on the US consumer

1. Job growth is still solid, jobless claims low
2. Net worth and excess savings still high
3. Wage growth still solid, real wage growth is positive

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1. The pace of employment growth is slowing
2. Households starting to run out of excess savings
3. Delinquency rates trending higher for credit cards and auto loans

Source: Apollo Chief Economist
Torsten Slok joined Apollo in August 2020 as Chief Economist and he leads Apollo's macroeconomic and market analysis across the platform.

Prior to joining, Mr. Slok worked for 15 years as Chief Economist at Deutsche Bank where his team was top ranked in the annual Institutional Investor survey for a decade, including #1 in 2019. Prior to joining Deutsche Bank Mr. Slok worked at the IMF in Washington, DC and at the OECD in Paris.

Mr. Slok has a Ph.D in Economics and has studied at the University of Copenhagen and Princeton University.