High and Rising Debt Levels: Should we worry?
Global Debt Monitor Slide Deck

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IIF Quarterly Global Debt Monitor

• Launched in November 2015 in response to growing demand from our members, both private and public sector

• In-depth analysis of debt dynamics by sector, country, currency
  ➢ Over 70 countries/regions—including mature, emerging, frontier markets
  ➢ Timely updates: Q1 1995 – Q1 2019, published quarterly
  ➢ Offers coverage of all four major sectors—household, non-financial corporate, financial and public sector
  ➢ Quarterly estimates of currency breakdown of EM debt by sector and country (USD, EUR, other foreign currencies, and local currency)
  ➢ Detailed data on issuance and maturity profile of EM bonds and syndicated loans
  ➢ Credit watch: assessment of trends in sovereign/corporate ratings
  ➢ Others: foreign/domestic ownership of EM local currency government debt; sectoral credit-to-GDP gap series; redemption profile of U.S. HY/IG corporate bonds

Sources: BIS, IMF, Bloomberg, Haver, Thomson One, National Sources, IIF Global Debt Monitor, IIF Weekly Insight
Déjà vu – lower rates, higher debt

Big jump in global debt as financial conditions ease

$ trillion

Global debt (in USD)

% of GDP (rhs)

% of GDP, weighted avg.
Non-financial corporate and government sectors have seen the biggest rise in debt levels since 2007 (in nominal terms)

Global Sectoral Indebtedness
$ billion, Q1 of each year

<table>
<thead>
<tr>
<th>Year</th>
<th>Households</th>
<th>Non-fin corporates</th>
<th>Government</th>
<th>Financial Corporates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>15</td>
<td>32</td>
<td>41</td>
<td>47</td>
</tr>
<tr>
<td>2007</td>
<td>21</td>
<td>38</td>
<td>65</td>
<td>73</td>
</tr>
<tr>
<td>2017</td>
<td>19</td>
<td>32</td>
<td>60</td>
<td>67</td>
</tr>
<tr>
<td>2019</td>
<td>19</td>
<td>48</td>
<td>57</td>
<td>60</td>
</tr>
</tbody>
</table>
Slower growth may contribute to a renewed rise in debt ratios
Elephants in the room: U.S. and China...

Total Global Debt (all sectors)
USD trillion, Q1 of each year

- Emerging market ex-China
- China
- U.S.
- Mature market ex-U.S.
...but Japan, Italy and France also bear watching
Many mature economies have seen debt ratios fall over the past year (notably in EU), but others still taking on more debt

Change in mature market debt-to-GDP
percentage points, difference between 2018Q1 and 2019Q1

Many mature economies have seen debt ratios fall over the past year (notably in EU), but others still taking on more debt.
EM debt to GDP ratios on the rise in many Latin American countries; same for Korea, South Africa and Pakistan

Change in emerging market debt-to-GDP
percentage points, difference between 2018Q1 and 2019Q1

- Argentina
- Chile
- Korea
- Brazil
- S. Africa
- Pakistan
- China
- Colombia
- EM30
- Thailand
- Nigeria
- Malaysia
- Philippines
- Turkey
- Mexico
- India
- Indonesia
- S. Arabia
- Ghana
- Czech
- Israel
- Russia
- Kenya
- Poland
- Lebanon
- Hungary
- UAE
- Egypt
- Ukraine

Chg. in FIN total debt= 34 pp

Household
Non-fin corporates
Financial sector
Government
Higher debt levels have led to significantly higher debt service costs for many emerging markets.

**Net interest expense on general government debt**

% of GDP, 2019/20 avg.

Source: IMF, IIF staff estimates
As debt levels grow, a rising number of “zombie firms” in many countries can’t cover interest expense from current earnings

**Number of Stressed Firms**
percent of firms with ICR less than 2 (% of assets)
High cash holdings provide a cushion for the corporate sector in some countries—notably China, Japan

Non-Financial Corporate Debt-to-Cash levels

Debt-to-cash*  Debt-to-GDP** (rhs)
For many countries, including the U.S., a significant percentage of small firms are facing debt-related stress.

United States – Distribution of Stressed Firms

percent of "risky" firms (% of each cap’s total assets), ICR = Interest-Coverage-Ratio
U.S. small- and medium-sized firms have much higher debt-to-cash ratios than do large-cap firms

Unites States: Non-financial Corporate Debt to Cash Ratios, by market cap
$ trillion, H1 2018, U.S.
Many Americans are living paycheck to paycheck

The bottom 50% of Americans have negative net personal wealth

percent of total personal wealth, by wealth quantile
U.S. corporate debt hit a record high in Q1 2019
Ghost of recessions past – high U.S. corporate debt levels

U.S. business health on the decline, probability of U.S. recession on the rise

Index, shaded area show recessionary periods

Source: IIF, Fed; * a weighted average of the first four factor loadings from the twelve variables which summarize U.S. firms’ financial strengths and vulnerabilities; **Fed’s model uses the difference btw 10-year and 3-month Treasury rate to calculate the probability of recession twelve months ahead
Sharp rise in U.S. leveraged loans and student debt—reminiscent of subprime loans before the financial crisis

Buildup in leveraged loans and student loans—on a par with subprime loans

<table>
<thead>
<tr>
<th></th>
<th>$ trillion</th>
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<tbody>
<tr>
<td>US subprime mortgages (2006)</td>
<td>8.3% of U.S. household debt</td>
</tr>
<tr>
<td>U.S. leveraged loans (2018)*</td>
<td>6.6% of U.S. non-fin. corporate debt</td>
</tr>
<tr>
<td>U.S. student loans (2018)</td>
<td>10.1% of U.S. household debt**</td>
</tr>
</tbody>
</table>

*Excludes leveraged loans for financial corporates
**Over 90% of these are guaranteed by U.S. Department of Education
Persistent rise in U.S. federal debt since 2009

Change in U.S. debt by sector

$ trillion, change since Q1 2009

Federal government: 10.4
Non-fin. corporates: 5.0
HH non-mortgage debt: 1.8
State & local government: 0.0
HH mortgage debt: -0.2
Financial sector: -1.5
...though covenant-lite issuance saw a big drop in early 2019

Much slower growth in the leveraged loan market in H1 2019

- Covenant-lite
- Other leveraged loans
- High yield corporate bonds

$ billion, 6-month moving sum, issuance
USD-denominated debt is on the rise

Dollarization is a global phenomenon
percent of GDP, USD-denominated debt of non-bank borrowers

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percent of GDP, USD-denominated debt of non-bank borrowers

Mature markets (ex-U.S.)
Emerging markets (ex-China)
The usual suspects: Argentina and Turkey

FX-Denominated Total Debt

$ trillion


FX-denominated debt-to-GDP

% of GDP, as of Q4 2009

% of GDP, as of Q1 2019

Increasing reliance on FX debt

AR TR

CL PO

CO BR

MX CZ

TH RU

IN SA

CN RU

IN TH

CO BM

MX CZ

CL PO

AR TR
Mexico, South Africa have a high proportion of USD corporate bonds on negative outlook; stronger USD would hurt

A dollar rally would be particularly challenging for the EM USD corporate bond market

% of total USD-denominated non-financial corporate bonds

Negative outlook
Positive outlook
Deterioration in EM corporate credit outlook in recent quarters

EM corporate ratings - more downgrades than upgrades

number, avg. chg in S&P, Fitch & Moody's ratings for EM firms

-40 -20 0 20 40


Downgrades
Downgrade watches
Upgrades
Upgrade watches
Net
China’s total debt now surpasses 300% of GDP...
...largely driven by the debt of non-financial firms (mostly state-owned enterprises)
Reliance on short-term debt is high across emerging markets

Emerging market firms face high short-term refinancing needs

percent, short-term debt as a share of total debt, excl. financials

"Blue=mature markets"
EM refinancing needs will remain high in 2020-21

EM Debt Maturity Profile
USD billion

2019: $1.1 trillion remaining

Bonds
Syndicated loans