

COVID-19 TO INCREASE U.S. DELINQUENCY RATE TO 6.5% AND INSOLVENCIES BY 25% IN 2020

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ALEXIS GARATTI

Head of Economic Research
Alexis.Garatti@eulerhermes.com

MAXIME LEMERLE

Head of Sector and Insolvency Research
Maxime.Lemerle@eulerhermes.com

MARC LIVINEC

Sector Advisor for Chemicals, Pharmaceuticals, Transportation, Agrifood and Transport Equipment
Marc.Livinec@eulerhermes.com

Executive summary

High frequency data and the news flow from the U.S. allowed us to have a better sense of the size of the Covid-19 shock, the reaction of public authorities and upcoming ripple effects. In this context, we revise our U.S. GDP growth scenario from +0.5% y/y to -2.7% y/y in 2020.

- **The largest shock on the U.S. economy since 1947.** We expect the contraction of activity to reach -30% q/q annualized in Q2 2020, representing two times the cumulated contraction of 2008-2009. We now expect two months of social distancing (March and April) instead of one month only, with a progressive albeit delayed recovery thereafter.
- **A U-shaped recovery remains our central scenario.** The size and design of monetary supportive measures suggest that a recovery will begin from Q3 2020 onward and gain steam in Q4 2020, allowing a rebound of growth at +3.3% y/y in 2021. However, this rebound will have a cost in terms of the deficit, expected at 9.6% of GDP in 2020 and 8.5% of GDP in 2021. We still believe that a L-shaped scenario, representing a cumulated loss in terms of value-added of USD 5.5 trillion at a horizon of four years, instead of USD 1.9 trillion in our central case, has a lower probability.
- **The delinquency rate (loans more than 30 days past due) of U.S. companies on commercial and industrial loans is likely to reach a record high of 6,5% at the end of the year, the highest since 1992.** However, the size and structure of the stimulus (equivalent to a vast system of credit guarantees) and the cash position of U.S. companies will allow a smaller progression of insolvencies compared with the subprime crisis (we expect a +25% rise of insolvencies in 2020 against +47% in 2008-09).
- **U.S. companies in the wholesale and retail sectors are the most at risk from the pause in sales as they had, on average, less than one month of turnover available in cash prior to the crisis.** In manufacturing activities, the most exposed sectors are petroleum and coal industries (18 days of turnover available in cash), food (40 days), textiles (44 days) and the paper industry (46 days).

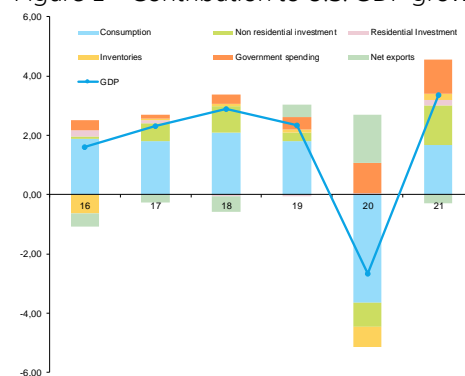
The size of the Covid-19 shock in the U.S.: more than -30% q/q annualized contraction of activity in Q2 2020

The brutal interruption of economic activities is unique in modern history. In order to measure the size of this shock, we assumed at the beginning that the U.S. would follow the path of China, meaning a contraction of activity below its trend level for a full month, followed by a progressive recovery thereafter. However, high-frequency data from the U.S., in particular job data, soon revealed that we were too optimistic. Looking at initial claims data, released on a weekly frequency, showed more than one million people claiming unemployment benefits in the last two weeks of March. Now, we look into translating this impact on the U.S. job market into losses of value-added.

A stable relationship exists between initial claims and nonfarm payrolls. Assuming that initial claims would remain above two million for two months after March, and that a progressive recovery would take place thereafter, gives us a loss of 15 million jobs before year-end. Assuming that the active population remains on its trend of progression, we estimate that the U.S. unemployment rate would reach 13.5% at the end of the year compared with 4.4% in March and 3.5% in February, when the adjustment of job market conditions effectively started.

In order to estimate the losses in terms of value-added, in terms of growth, we utilize the so-called Okun law, which describes the long-term relationship between growth and unemployment. According to our own estimate of this law, a jump in the unemployment rate from 3.5% to 13.5% should be the result of a significant decline of growth from 2.5% y/y in Q4 2019 to a trough of -8.6% y/y in Q2 2020. In these circumstances, **U.S. GDP growth would contract by -2.7% y/y in 2020 compared with its growth of +2.3% y/y in 2019.** This represents a significant downward correction compared with our prior scenario for 2020 at +0.5% y/y. However, our sensitivity analysis already identified the fact that switching from a one-month to a two-month confinement (social distancing in the U.S.¹) was enough to anticipate a much lower level of growth. We now anticipate two months of social distancing and a delayed de-confinement, meaning that the U.S. would only return to its level of activity before the Covid-19 crisis in the middle of Q4 2020.

Figure 1 – Contribution to U.S. GDP growth (pp)



Sources: IMF, Allianz Research

The recovery would mainly result from the stabilization policy of the U.S. government and the Fed. We have for now penciled in a USD 2.3 trillion

¹ Social distancing in the U.S. is probably softer than confinement in Europe as there has been no closure of borders between U.S. states and less strict measures compared with the average European country.

fiscal stimulus package, with a multiplier close to one, which will contribute by 1 pp to the recovery of the U.S. economy in 2020 and by 1.1 pp in 2021. For now, we have not introduced the USD 2 trillion package on infrastructure, which is a clear possibility but has not been voted yet by the Congress. As a result of this activism on the fiscal side, U.S. GDP growth is expected to rebound at +3.3% y/y in 2021. However, the U.S. fiscal deficit is expected to be close to 9.6% of GDP in 2020 and 8.5% of GDP in 2021.

Duration of the crisis: cumulated losses in terms of value-added have the potential to be bigger than during the subprime crisis

Obviously, should the situation deteriorate on the sanitary side, the U.S. recovery could take much longer. The nature of the crisis means that we are currently facing an extremely high level of uncertainty: The longer the shock, the more severe is its impact on growth. We identified three different scenarios for the duration of the shock:

- A one-month U-shaped scenario where confinement leads to a contraction of activity by 20% below its normal trend level (as observed in China), with a de-confinement of two months leading progressively to a return to the pre-crisis level of activity.
- A two-month U-shaped scenario: Economic activities remain 20% below their normal trend level for two months, followed by a four-month de-confinement process (our central scenario now).
- A L-shaped scenario: The size, duration and repercussions of the shock are much bigger, leading to very large credit events and to a situation where fiscal and monetary stimuli are unable to restart the engine of growth.

In terms of cumulated losses, the L-shaped scenario of course has the worst scorecard. The duration aspect of the crisis here is important as the initial impact is close to the initial impact of the U-shaped scenarios. In the L-shaped scenario, a sharp deterioration of the credit market, with the default of systemic size companies, would trigger a literal freezing of monetary and financial conditions. The sanitary crisis would then morph into a full blown global debt crisis, both at a public and private level. Tables 1, 2, 3 and 4 give detail in terms of cumulated losses compared with a situation where the U.S. economy grows at its growth potential, and present the subprime crisis as a benchmark.

Table 1 – Cumulated losses in terms of value-added (2-month / U shape, USD bn)

	2 months confinement and longer de-confinement			
	2020	2021	2022	2023
US	2020	2021	2022	2023
Nominal GDP growth	-5,1%	6,0%	5,0%	4,5%
Inflation	-2,4%	2,7%	2,2%	2,0%
Real GDP growth	-2,7%	3,3%	2,8%	2,5%
Observed nominal GDP (1)	20601,84	21837,95	22929,85	23961,69
Theoretical nominal GDP (2)	22685,91	23706,77	24773,58	25888,39
Cumulated Losses (1) - (2), USD bn	-2084,06	-1868,82	-1843,73	-1926,69

Sources: IMF, Allianz Research

Table 2 – Cumulated losses in terms of value-added (1-month / U shape, USD bn)

	One month confinement and short de-confinement			
	2020	2021	2022	2023
US	2020	2021	2022	2023
Nominal GDP growth	0,8%	5,7%	6,0%	5,9%
Inflation	0,3%	3,0%	3,5%	3,7%
Real GDP growth	0,5%	2,7%	2,5%	2,2%
Observed nominal GDP (1)	21882,67	23129,98	24517,78	25964,33
Theoretical nominal GDP (2)	22685,91	23706,77	24773,58	25888,39
Cumulated Losses (1) - (2), USD bn	-803,23	-576,79	-255,79	75,95

Sources: IMF, Allianz Research

Table 3 – Cumulated losses in terms of value-added (longer than two months / L shape, USD bn)

	Protracted crisis			
	2020	2021	2022	2023
US	2020	2021	2022	2023
Nominal GDP growth	-6,9%	-0,5%	-0,1%	1,0%
Inflation	-3,9%	-0,4%	0,0%	1,0%
Real GDP growth	-3,0%	-0,1%	-0,1%	0,0%
Observed nominal GDP (1)	20211,08	20110,02	20089,91	20290,81
Theoretical nominal GDP (2)	22685,91	23706,77	24773,58	25888,39
Cumulated Losses (1) - (2), USD bn	-2474,83	-3596,75	-4683,66	-5597,57

Sources: IMF, Allianz Research

Table 4 – Cumulated losses in terms of value-added (subprime crisis, USD bn)

	Subprime crisis			
	2008	2009	2010	2011
US	2008	2009	2010	2011
Nominal GDP growth	1,8%	-1,8%	3,7%	3,6%
Inflation	3,8%	-0,3%	1,6%	3,1%
Real GDP growth	0,0%	-2,3%	2,5%	1,5%
Observed nominal GDP (1)	14720,00	14420,00	14960,00	15520,00
Theoretical nominal GDP (2)	15131,60	15812,52	16524,09	17267,67
Cumulated Losses (1) - (2), USD bn	-411,60	-1392,52	-1564,09	-1747,67

Sources: IMF, Allianz Research

Our central scenario is now close to the subprime crisis in terms of cumulated losses at the horizon of four years. However, its immediate impact in the two first years is much bigger compared with the subprime crisis.

A potential 25% increase in U.S. companies' insolvencies

To estimate the potential impact of the current crisis on companies, we study the link between the U.S. delinquency rate of commercial & industrial loans (30 days late) and the unemployment rate, the credit to GDP gap (BIS) and the level of public expenditures as a percentage of GDP. With these three elements, we have the initial negative impact (the size of the shock), the fragility factor with the credit gap (likelihood to have long-lasting consequences in case of high fragility \approx duration of the crisis) and the smoothing factor with the reaction of fiscal policy (the policy reaction factor). We use a three-dimensional approach (size, duration, policy reaction) to identify the potential impact of the current crisis on companies' solvencies. Table 5 presents the results of our estimate.

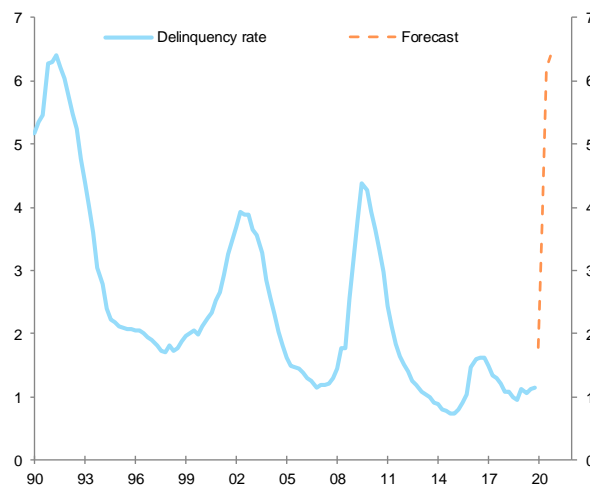
Table 5 – Estimating the delinquency rate of U.S. non-financial companies

	<i>Coefficients</i>	<i>Standard deviation</i>	<i>T statistic</i>	<i>Probability</i>
Constant	19,50	3,00	6,51	1,5967E-09
unemployment rate	1,08	0,13	8,22	2,0284E-13
credit gap	0,26	0,03	8,60	2,5493E-14
Public expenditures	-0,70	0,11	-6,39	2,8075E-09

Sources: IMF, Allianz Research

This equation allows us to anticipate the potential evolution of insolvencies in the U.S. over the four coming quarters. We use our own forecast on the U.S. unemployment rate, assume a progression by 1% per quarter of the credit to GDP gap (as observed during the subprime crisis) and use as an input what we expect in terms of public expenditures (increasing by 9% of GDP in one year). The equations suggest that the U.S. delinquency rate of non-financial companies could increase from 1.1% in Q4 2019 to 6,5% at the end of the year, its highest level since 1992.

Figure 2 – Delinquency rate (% of total loans to non financial companies)



Sources: IMF, Allianz Research

Looking at the correlation between the delinquency rate and insolvencies, we find that insolvencies could eventually increase by 25% y/y in 2020. We consider that given the assistance programs already voted on by the Congress and the swift creation by the Fed of facilities targeting both SMEs and large companies, we are likely to see a relatively rapid implementation of the stabilization policies. Despite a larger size of the shock (materializing in a record high delinquency rate), we expect the progression of insolvencies (+25%) to be lower compared with the subprime crisis. Indeed, at that time, insolvencies increased by an average of 47% y/y. We see several reasons to explain this:

- The size and more importantly the rapidity of the current stimulus, both at monetary and fiscal levels.
- The design of the policy mix, which clearly gives priority to the support of the real side of the economy (in particular companies) against rather than financial institutions, which were prioritized during the subprime crisis.
- The better cash position of companies prior to the shock.

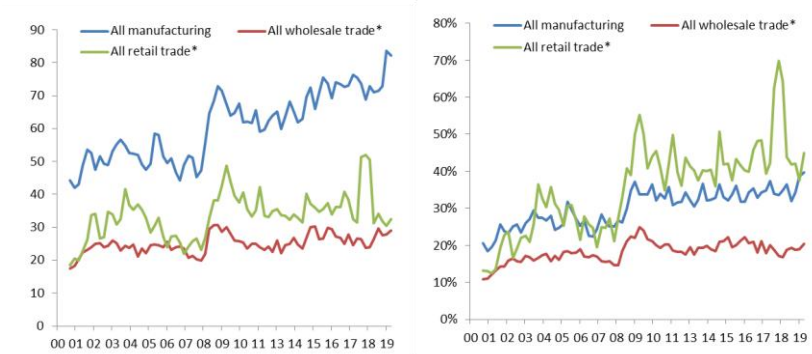
Besides the huge size of the current fiscal stimulus (estimated at 10% of GDP with a possibility of being doubled with infrastructure programs) and the rapidity of its implementation (huge liquidity injections, the creation of numerous lending facilities and the voting of the USD 2.3 trillion fiscal package even before worsening of macroeconomic conditions), we insist on the fact that it is equivalent to a vast system of credit guarantees, which will prevent delinquencies from becoming insolvencies. The Fed recently announced the creation of a facility that will complete the so-called Paycheck Protection Program, a USD 350 bn program which will provide loans to small and medium-sized companies to cover payroll, rent and utilities. By providing term financing to banks distributing these SBA (Small Business Administration) loans, the Fed will allow an extensive usage of this loan guarantee by banks. In this context, banks won't hesitate to continue distributing short-term financing to small and medium size companies. At the level of large companies, the Fed created two other facilities i.e. the PMCCF (Primary Market Corporate Credit Facility), for new bond and loan issuance, and the SMCCF (Secondary Market Corporate Credit) for liquidity purposes. These facilities will be able to provide bridge financing for investment grade companies for four years.

Companies have stronger liquidity buffers compared with the situation preceding the subprime crisis, but the degree of protection significantly differs across sectors. Higher levels of cash to working-capital-requirement ratios show a higher exposure to the risk of a brutal interruption of sales

U.S. companies are all facing liquidity risk due to both the sudden disruption in business operations and the potential disruption in financing,. However, their starting points are different from one sector to another in terms of cash position and working capital requirement (WCR). We address both issues by looking at the quarterly financial reports of U.S. companies available by sector for Q4 2019 (the sample concerns here all U.S. companies and not only listed ones). We calculate the cash position in terms of number of days in turnover to evaluate the vulnerability of sectors to the duration of a pause in activity (the higher the cash position, the stronger the capacity to survive a long pause in business). In addition, we look at the importance of cash relative to the WCR, since a positive WCR is always associated with a financing need under which the company has external financing lines most often granted by banks when they no longer have enough cash (self-financing). Figure 3 shows that liquidity buffers were more important at the end of 2019 compared with the time preceding the subprime crisis.

Figure 3: U.S. industries - Cash position in number of days in turnover (left)

and Cash/WCR (right)



* USD50mn and over in assets

Source: IHS (quarterly financial reports), Euler Hermes, Allianz Research

Wholesale and retail are the most exposed to a pause in sales based on the amount of cash recorded in balance sheets as of end 2019. The buffer of liquidity significantly differs across sectors. Prior to the Covid-19 outbreak, at the end of 2019, U.S. trade and wholesale companies reported aggregated cash of USD133bn, representing 31 days in turnover, and an aggregated WCR of USD170bn representing 72 days of turnover. For U.S. manufacturing companies, aggregated cash amounted to USD386bn (82 days in turnover) and aggregated WCR to USD968bn or 207 days of turnover. The overall vulnerability appears to be lower when comparing wholesale with retail but the retail sector's level of risk could be higher since these amounts of cash were also representing 45% of the WCR, twice more than for wholesale (20%). To this regard, trade in food and beverages is particularly relying on cash for financing WCR (124%), compared to other retail and wholesale trade, and to most manufacturing industries. Again, a high cash to WCR ratio is an indicator of fragility in the current context as it reveals a higher dependency to sales to fund short-term normal levels of activity.

The global picture of manufacturing industries is more favorable with a higher level of cash compared to the level of sales (82 days) and a limited amount compared to WCR (40%). Yet this masks a large spectrum of uneven vulnerabilities when looking at sub-sectors. **The nondurable manufacturing sectors most exposed in their cash positions to a pause in sales are petroleum and coal industries (18 days), food (40), textiles (44) and paper (46).** A drop in cash would be more problematic for the WCR needs for chemicals and pharmaceuticals due their high cash/WCR ratio but both present a stronger initial cash position. Durable manufacturing sectors are showing more buffers on average, with the equivalent of 99 days of turnover in cash. Yet, **three segments stand out with a lower amounts of cash: motor vehicles and parts (42 days), wood products (48) and transport equipment (55).** The top sectors vulnerable to a drop in cash for the financing of their WCR are in the IT sector (computer and electronics, communication equipment, electronic equipment) but the latter are also the sector with stronger initial cash position.

Figure 4: U.S. industries - Cash position in number of days in turnover and

Cash/WCR

	Cash (number of days in sales)	Cash / WCR
All manufacturing	82	40%
All nondurable manufacturing	63	36%
Food	44	26%
Beverage and tobacco products	66	58%
Textile mills and textile product mills	40	10%
Apparel and leather products	90	30%
Paper	46	26%
Printing and related support activities	56	32%
Petroleum and coal products	18	24%
Chemicals	124	48%
Basic chemicals, resins, and synthetics	99	45%
Pharmaceuticals and medicines	157	57%
All other chemicals	74	31%
Plastics and rubber products	74	30%
All durable manufacturing	99	42%
Wood products	48	24%
Nonmetallic mineral products	79	33%
Primary metals	80	28%
Iron, steel, and ferroalloys	74	25%
Foundries	92	28%
Fabricated metal products	100	33%
Machinery	84	29%
Computer and electronic products	193	157%
Communications equipment	243	135%
All other electronic products	271	97%
Electrical equipment, appliances, and components	116	53%
Transportation equipment	55	21%
Motor vehicles and parts	42	95%
Aerospace products and parts	94	15%
Furniture and related products	63	34%
Miscellaneous manufacturing	94	30%
All mining, \$50 million and over in assets	116	155%
All wholesale trade, \$50 million and over in assets	29	20%
Durables *	37	17%
Nondurables *	22	29%
All retail trade, \$50 million and over in assets	32	45%
Food and beverage stores *	37	124%
Clothing and general merchandise stores *	33	54%
All other retail trade *	31	33%

* USD50mn and over in assets

Source: IHS (quarterly financial reports), Euler Hermes, Allianz Research

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