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How healthy is the Asian financial system?

Will the impact of COVID-19 lead to a financial crisis in Asia? A look at the complex dynamics at play could help policymakers and corporations prepare that possibility.

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COVID-19 is a global health crisis that has rapidly turned into an economic one in virtually every country in the world. As many governments are resorting to unprecedented levels of fiscal stimulus to arrest the impact on their economies, the question foremost on the minds of many policy makers and corporations is whether this will develop into a financial crisis, particularly in the developing world. Initial signs of the shock's ripple effects on Asia's financial system are emerging.

In our article "Signs of stress: Is Asia heading toward a debt crisis?," first published in August 2019, we stressed that the fundamental health of Asia's real[1] and financial sectors was deteriorating. Any shock to earnings will likely exacerbate these effects. In 2020 (as of May 20), the financial-services sector in Asia has lost over $920 billion in market value, largely because of investor concerns about the increasingly high levels of non-performing assets in bank portfolios as a result of COVID-19. Reports are beginning to emerge of runs on provincial banks in Mainland China. Ratings agencies, including Fitch, have revised their outlook on Asia-Pacific banks to negative.

Could any signposts indicate whether a financial crisis is likely, how quickly it might happen, and, if it did, whether it would be isolated to a few markets or spread across the region? To answer these questions, we studied financial crises that have occurred over the past 40 years, derived patterns of the interplay across the different elements of the economy, and identified a series of interconnected imbalances that an external shock like COVID-19 could trigger.

The anatomy of a financial crisis

There are four elements that typically form the bulwark of modern economies[2]—the real sector, the financial intermediation system, international money and capital flows, and public finances (Exhibit 1). When the dynamic loops between these four elements are in balance, they help drive economic growth. However, when one or more of these elements fall out of balance, they can create the conditions for a severe financial crisis.

Imbalances across these elements has in the past led to three primary archetypes of financial crises—*banking crises, currency-led crises,* and *fiscal debt and inflation-driven crises* (Exhibit 2). When the imbalance in the real sector flows into the financial system, it can result in a banking crisis, especially in the presence of additional triggers. For example, rising and significant credit defaults can lead to a large share of non-performing assets in the domestic banking system. Our analysis shows this typically follows lending booms where excessive liquidity either funds overconsumption (e.g., Chile), overinvestment (e.g., Korea) or excessive government spending (e.g., Turkey, Argentina).

This situation is exacerbated when interlinked with international money/capital flows. When substantial foreign lending is undertaken with a maturity mismatch between assets and liabilities, a currency crisis could be triggered simultaneously. High levels of foreign debt raised by banks, corporates, or government, a large share of which is short term, create an asset-liability and a currency mismatch. Internal or external events that then trigger loss of confidence (e.g., initial signs of credit defaults, runs on banks by depositors) can lead to large outflows. In the case of Argentina in 2001, it was the country's fiscal and currency problems that escalated when depositors lost confidence in the government's ability to enforce the currency board, leading to ever-intensifying bank runs.

In several past crises, these outflows tested existing currency pegs, leading to the collapse of these pegs or the material devaluation of the currency. This, in turn, triggered additional credit defaults as repayments in foreign currency became more expensive and set in motion a vicious cycle.

In summary, most systemic crises are triggered by defaults of households, corporates, or the government. However, risks are amplified when intertwined with a weak financial system, imbalances in foreign capital flows, or indiscriminate government spending.
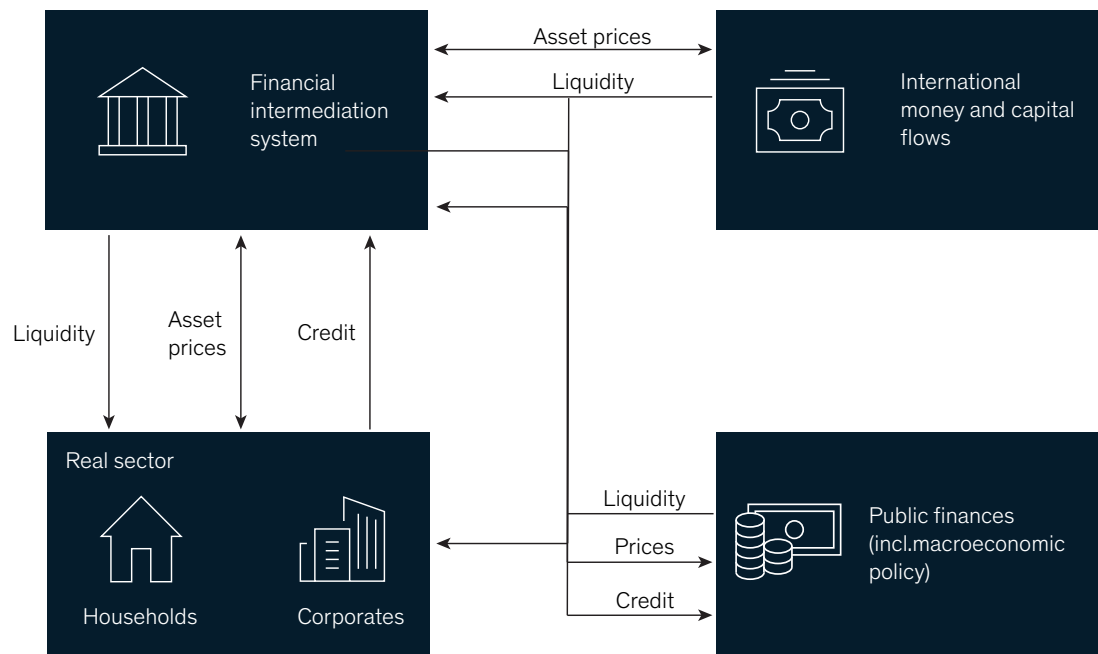
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[1] The real sector comprises the economic activity of corporates and households.
[2] Dominic Barton, Roberto Newell, and Gregory Wilson, *Dangerous Markets: Managing in Financial Crises*, New York: Wiley, 2002.

Exhibit 1
Dynamic loops form the bulwark of the economic system.

Source: McKinsey analysis

COVID-19 is unprecedented because of the scale of the supply-side shock to the system. The real sector has gone into a freeze for a few weeks almost simultaneously across the globe. The impact of this on the financial intermediation system, including its ability to provide credit and support capital formation, is as yet unclear. Just as the outcomes of the health crisis are largely dependent on pre-existing conditions that are present in those contracting the virus, the likelihood of a financial crisis is a function of the degree of imbalance that exists in each economy across the four signposts outlined above.
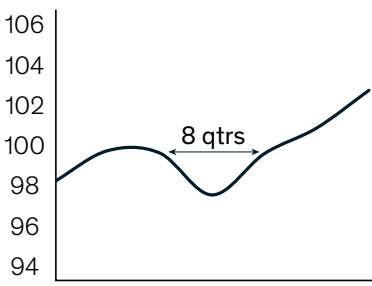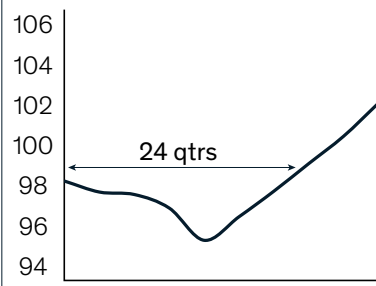
Health of the financial system: 4 signposts and 12 indicators
In the article "Safeguarding our lives and our livelihoods: The imperative of our time," we detailed the epidemiological and economic

effects of COVID-19 and the need to "timebox" the virus and the resulting economic shock. We estimate that staggered lockdowns of two months could result in a full-year 2020 GDP contraction of approximately 2 to 3 percent in most major Asian economies. However, in the event of a resurgence of the virus and lockdowns being extended to roughly 4 months, the contraction in 2020 GDP could be 9 percent or higher in a few Asian markets, such as India, Malaysia, Singapore, and Thailand.

We now analyze the starting position of Asian markets in relation to the four signposts outlined above, and the strength of the dynamic loops, by studying 12 indicators for each economy (Exhibit 3). (The appendix describes these signposts, indicators, and their potential impact in detail.)

Exhibit 2

Three archetypes of financial crises.

	Banking crisis	Currency crisis	Fiscal debt and inflation-driven crisis
Description	Credit defaults in the banking system Bank runs/liquidity issues due to other triggers, eg, change in fair value accounting treatment in 2007 Significant decline in profits of the sector as a whole, eg, 83.5% decline in profits of US banks in Q4 2007 due to provisions	Significant external borrowing by households/corporates; dependence on short-term foreign debt Pegged currency Insufficient reserves to defend peg in case of large-scale outflows Triggers large-scale restructuring of financial sector, eg, more than half of Thai finance companies and 1 bank closed; 4 banks nationalized in 1997	Pegged currency Large public debt in foreign currency with an asset-liability mismatch Lack of fiscal discipline to defend the peg triggers a crisis Leads to large-scale restructuring, eg, 720 banks were deemed insolvent in Russia and a large share of their deposits were transferred to Sberbank
Examples	India (1993) Argentina (1995) China (1998) US (2007)	Chile (1982) Mexico (1995) Asian financial crisis (1997)	Argentina (1998 - 2001) Russia (1998)
Time to recovery	US real GDP indexed (2006 = 100)	Thailand real GDP indexed (1996 = 100)	Argentina real GDP indexed (1998 = 100)

Banking crisis: US real GDP indexed (2006 = 100), 8 qtrs, years 2006 07 08 09 10 11 2012. Peak contraction: -3%

Currency crisis: Thailand real GDP indexed (1996 = 100), 16 qtrs, years 1996 97 98 99 00 01 02 2003. Peak contraction: -8%

Fiscal debt and inflation-driven crisis: Argentina real GDP indexed (1998 = 100), 24 qtrs, years 1998 2000 02 04 06 2008. Peak contraction: -11%
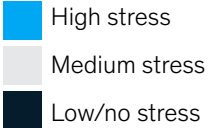
Source: IMF; McKinsey analysis

Signpost 1: Enhanced stress in an already vulnerable real sector

The economic impact of COVID-19 has to be managed carefully; especially in markets with chronic underperformance in the real sector. Even prior to COVID-19, the majority of corporates in Asia generated negative economic profit—that is, they did not generate sufficient returns to cover their weighted average cost of capital. In addition, in at least five markets, 20 percent or more of long-term debt was held by corporates that could not reliably meet interest payments; this situation was particularly serious in Mainland China and India, where the share of corporates that could not reliably meet interest payments was more than 35 percent. These figures will worsen materially in light of dramatically lower business earnings. In the more developed markets in Asia, knock-on effects might also affect the ability of highly leveraged households to repay debt.

Exhibit 3

Four signposts and 12 indicators on the health of the Asian financial system.

	Real sector			Financial intermediation system			International money/capital flows			Public finances		

Real sector
1 When ROIC < WACC[1] for large share of companies in the country, %, 2018
2 Share of long term debt owned by corporates with ICR <1.5, %, 2018
3 Household debt, % of GDP, Q4 2019

Financial intermediation system
4 Profitability of banks, 2019 Q3, % (ROA <1%)
5 Rapid growth in lending, 2016-17, 2017-18, % (>20% yoy for > 2 years)
6 Non-performing loans, %, 2019 (>5% of total bank assets)

International money/capital flows
7 Foreign debt as a % of GDP, 2019
8 Share of foreign loans with term <1 year (>25% with term <1 year), %, 2019
9 International portfolio inflows/outflows of debt and equity,[4] 2018, 2019, USD bn (Rapid growth of collapse?)

Public finances
10 General government deficit/surplus, % of GDP, 2019
11 Current account deficit/surplus, % of GDP, 2019
12 Foreign exchange reserves, months of import cover, Mar 2020

High stress
Medium stress
Low/no stress

		1	2	3	4	5	6	7	8	9	10	11	12
Developed Asia	Australia	46	20	119	0.9	7, 2	1.0	123	22	111, 30	-3.7	0.5	3.4
	Hong Kong SAR China	64	24	80	1.0	12, 8	0.6	454[5]	66[5]	115, 62	-1.5	6.3	9.8
	Japan	50	2[2]	57	0.1	-2, 2	1.1	83	n/a	282, 318	-2.8	3.6	22.8
	South Korea	67	20[2]	95	0.7	11, 9	0.4	28	29	91, 86	0.9	3.7	9.7
	Singapore	61	8[2]	52	1.3	4, 9	1.3	418[5]	71[5]	17, 21	3.8	17.0	13.8
Emerging Asia	Mainland China	58	36	54	1.0	10, 14	1.9	14	56	214, 183	-6.4	1.0	19.0
	India	55	37	12	0.1	13, 4	8.8	20	20	-13, 89	-7.4	-1.1	15.7
	Indonesia	59	8	18	2.5	5, 4	2.4	36	12	20, 40	-2.2	-2.7	8.7
	Malaysia	66	16[2]	68	1.5	1, 13	1.5	63	41	-6, 2	-3.2	3.3	6.3
	Philippines	66	2[2]	16	1.5	17, 17[3]	2.0	23	19	8, 14	-1.9	-0.1	12.6
	Thailand	54	17[2]	69	1.4	9, 10	3.1	34	35	-2, 0.2	-0.8	6.9	11.6

[1] Public companies with revenue >$100M.
[2] Data as of 2017.
[3] 2015-16 and 2016-17.
[4] IMF estimates; includes portfolio debt and equities; excludes FDI and loans.
[5] Financial centers.
Source: McKinsey CP Analytics; McKinsey Economic Analytics Platform; Capital IQ; Individual government statistics; IMF; IHS Markit; Websites; World Bank; Institute of International Finance; CEIC data; McKinsey Global Institute; Panorama GBP

Signpost 2: Variable health of financial system weakened by real sector transmission

The effects of underperformance in the real sector transferring to the financial intermediation system have to be anticipated and managed. The starting position of the financial system varies across Asia. While the interest-rate environment in Japan has affected the profitability of banks, Indian banks have been beset with issues around non-performing assets. Growth in lending by non-bank financial intermediaries in both Mainland China and India is an additional fault line, as these lenders largely depend on funding in the interbank markets. Central banks and monetary authorities have recognized this. The Reserve Bank of India, for example, held an off-cycle meeting of its Monetary Policy Committee on May 22, 2020 where it cut the repo rate by a further 40 basis points; this was in addition to a stimulus package amounting to 10 percent of GDP announced by the government just 10 days prior. There are early signs in several markets that merit ongoing monitoring, including a liquidity squeeze in the interbank markets, headroom challenges as central banks ramp up liquidity measures, and lack of a clear roadmap to phase out these measures and restore the health of financial intermediaries—for example, an action plan to deal with weak financial institutions, a framework to accelerate bad-loan resolutions, a rehaul of the bankruptcy code, initiatives to improve the breadth and depth of capital markets, and measures to de-risk the role of non-bank players.

Signpost 3: Reliance on international money and capital flows

Fortunately, the share of foreign debt is low for most of the emerging markets in Asia (including short-term debt, with a tenure of less than one year). The International Institute of Finance estimates there were $83 billion of equity and debt outflows from emerging markets in March 2020, likely driven by portfolio rebalancing as a response to COVID-19. At the same time, the World Trade Organization forecasts a roughly 13 to 36 percent fall in exports from Asia this year, depending on how the environment evolves over the rest of 2020. A continuation of both these trends will place material pressure on emerging market currencies and potentially erode the existing store of foreign exchange reserves.

The intricate balance between currency rates, extent of forex reserves, and the ability to pay for imports and repay debt in foreign currency, needs to be monitored carefully. The balance will likely continue to be impacted by a number of external triggers, including the reconfiguration of international supply chains post COVID-19, which will directly impact foreign currency earnings. In addition, potential sovereign rating downgrades can lead to large outflows of portfolio debt, equity or foreign loans, with a knock on impact on exchange rates and the balance of payments. Equally, sharp movements in commodity prices (for example, a decline in oil prices) could be a blessing for large importers like India, but negatively impact the foreign currency earnings of large oil-export-oriented economies.

Signpost 4: Sustainability of rising government debt burdens

While the starting point on government debt across Asia is largely healthy, many governments in the region have launched a slew of measures to cushion the impact of the pandemic; announced stimulus measures range from about 3 to 20 percent of GDP. Additional measures continue to be announced on a weekly basis. For example, as of May 22, 2020, the Bank of Japan has announced coronavirus response measures totaling roughly $700 billion, which comprise lending programs and buying of commercial paper and corporate bonds. The efficacy and sufficiency of these measures is still to be determined, and there is uncertainty around the productive use of these funds to generate demand and the timely return to health of corporate and individual balance sheets. Given the weak transmission mechanisms, moral hazard remains a source of concern. Two additional risks merit ongoing tracking: the risk of government crowding out lending to the private sector, and uncertainty on the path to recovery—the sequencing and withdrawal of emergency liquidity and stimulus measures set up by local and international governments and monetary authorities.

Imbalances in the interconnected system need to be monitored

As the economic impact of COVID-19 becomes clearer over time, the fragile balance in this interconnected system has the potential to be disrupted.

For healthy markets, the impact on the real sector can be managed through stimulus measures that governments can fund comfortably. Given the scale of the shock, any imbalance in one of the four elements will probably determine the length and extent of a recession in the economy.

In markets where weaknesses in the real sector end up cascading onto a vulnerable financial system, the need for significant structural reform might become urgent, including a plan to deal with weak players.

The risk becomes non-trivial if several of these elements become imbalanced simultaneously. This would be especially true in the event of a resurgence of the virus necessitating additional lockdowns, and if governments are not able to commit adequate funds for stimulus, or if the stimulus does not lead to uplift in demand or corporate profitability. The domino effect of this imbalance can be felt in both the financial intermediation system and the balance of payments position. Unfortunately, in these unprecedented times, such a scenario is definitely within the realm of the possible. Policy makers must leverage all the tools they have to avoid simultaneous imbalances occurring across multiple elements.

The signposts and indicators explained

Signpost 1: Measuring the performance of the real sector

The world has had a prolonged period of low interest rates, at least for the major currencies. In the real sector, the objective is to gauge if credit is being used productively in the economy by corporates and households. Economies with chronic underperformance in the real sector merit ongoing, frequent monitoring across all metrics on a monthly or quarterly basis.

1. Corporate performance: Share of companies in the market that generate negative economic profit—that is, return on invested capital (ROIC) less than the weighted average cost of capital (WACC).

2. Corporate debt repayments: Share of long-term debt that is held by corporates that cannot reliably meet interest payments— that is, corporates with an interest coverage ratio of less than 1.5.

3. Household debt: In the absence of detailed financial information relating to households, we measure the aggregate level of household debt to GDP; with a special focus on economies where household debt levels have shot up beyond 55 percent of GDP.

Signpost 2: Assessing the strength of the financial intermediation system

In the Asian context, where financial intermediation is still largely the purview of banks, we measure overall bank profitability and the extent of non-performing assets in the system. We also look for emerging signs of stress by watching for explosive year-on-year growth in lending.

Other more immediate signs of stress need to be managed proactively—for example, spikes in interbank lending rates, reports on bank runs—to ensure issues do not spill over at scale into the financial system.

1. Banking system profitability—is the return on assets below 1 percent indicating banks are likely not meeting return expectations of investors?

2. Extent of non-performing assets in the system—if above 5 percent, it will materially impact bank capitalization levels and profitability and have additional spillover effects.

3. Growth in lending: Are there emerging signs of stress, for example, explosive year-on-year growth in lending of more than 20 percent.

Signpost 3: Extent of external dependence

We measure how vulnerable an economy is to external shocks, including large fluctuations in exchange rates or interest rates in overseas currencies, and we consider the likely repercussions on the real sector and banking system.

1. Levels of foreign debt relative to GDP

2. Tenure of foreign debt, including the share that is short term; if share of short-term debt with tenure less than one 1 year is more than 25 percent, it is an indication of high risk

3. Volume and trajectory of international portfolio debt and equity inflows or outflows; inconsistent large variation could indicate heightened risk

Signpost 4: State of public finances

Finally, we assess the extent of flexibility governments have to launch further stimulus measures.

1. Overall government deficit/surplus as a percentage of GDP

2. Current account deficit/surplus as a percentage of GDP

3. Number of months that foreign exchange reserves can cover payments for imports