

Central banks, financial stability, MMT and a looming depression

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Leading Into the Pandemic

- Developed economies were in the latter stages of their long-term debt cycles and business cycles.
 - Slow growth and low inflation.
 - Near zero interest rates, QE spent, and compressed risk premiums.
- Monetary policies were approaching the end of their useful lives, increasing dependence on fiscal policy coordinated with accommodative monetary policy — MP3.
 - BoJ, ECB were there already.
 - Fed, BOE and others were one downturn away.

Where We Are Now

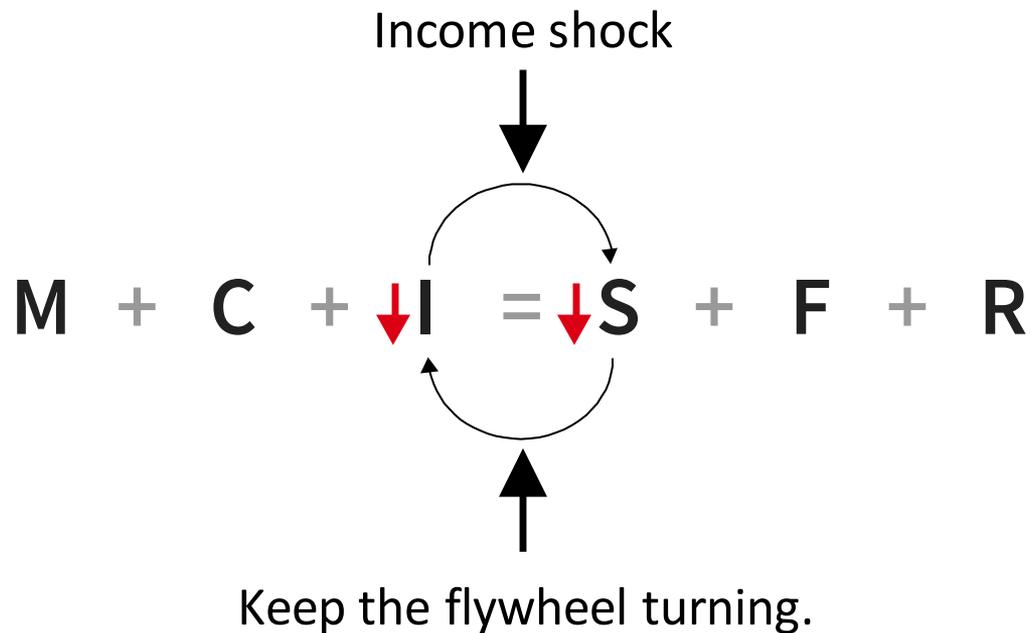
- A global income shock, caused by a pandemic, with interest rates at zero.
- Requires fiscal policy supported by monetary policy (MP3).
- The *size* of the fiscal and monetary response has been sufficient for now.
- Policy actions leave big *dependencies* in order to be successful.
- There is a “duration mismatch” between the virus timeframe and the staying power of balance sheets and government support.
- Two big countervailing forces, falling cash flows vs. abundant liquidity.

The Mechanics at Work

- An economy is comprised of transactions, there are always two sides.
- Spending requires funds, and also provides funds for others.

$$\begin{array}{ccccccc} & \text{Sources} & & & \text{Uses} & & \\ \hline & \text{M} & + & \text{C} & + & \text{I} & = & \text{S} & + & \text{F} & + & \text{R} \\ \text{Money} & & & \text{Credit} & & \text{Income} & & \text{Spending} & & \text{Financial} & & \text{Reserves} \\ & & & & & & & & & \text{Asset} & & \\ & & & & & & & & & \text{Purchases} & & \end{array}$$

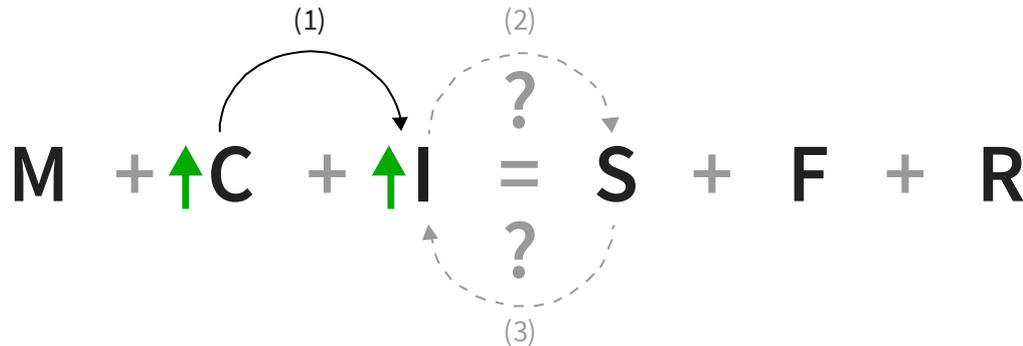
What Happened: What's Needed



Fiscal Policy is Replacing Lost Income (Not Spending)

Taking direct actions with direct effects, with hoped-for indirect effects.

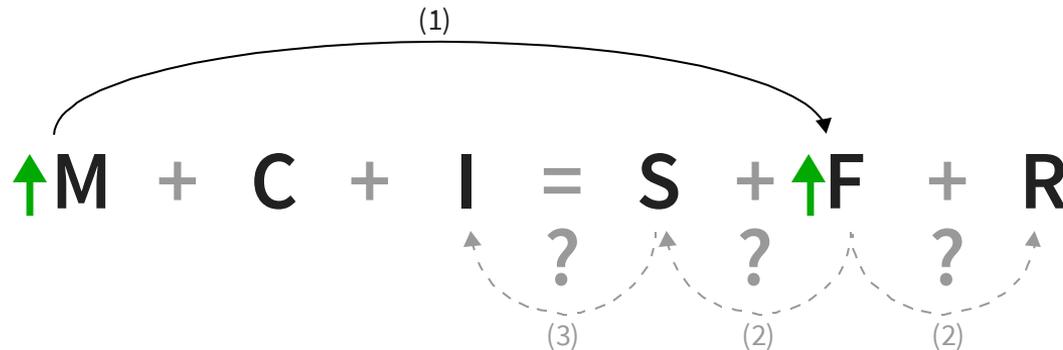
- 1) Government borrows, replaces lost income.
- 2) How much of that will be spent vs. saved or used for debt reduction?
- 3) And then, will that spending produce income to turn the flywheel?



Monetary Policy is Supporting Fiscal Policy & Markets (Not Income or Spending)

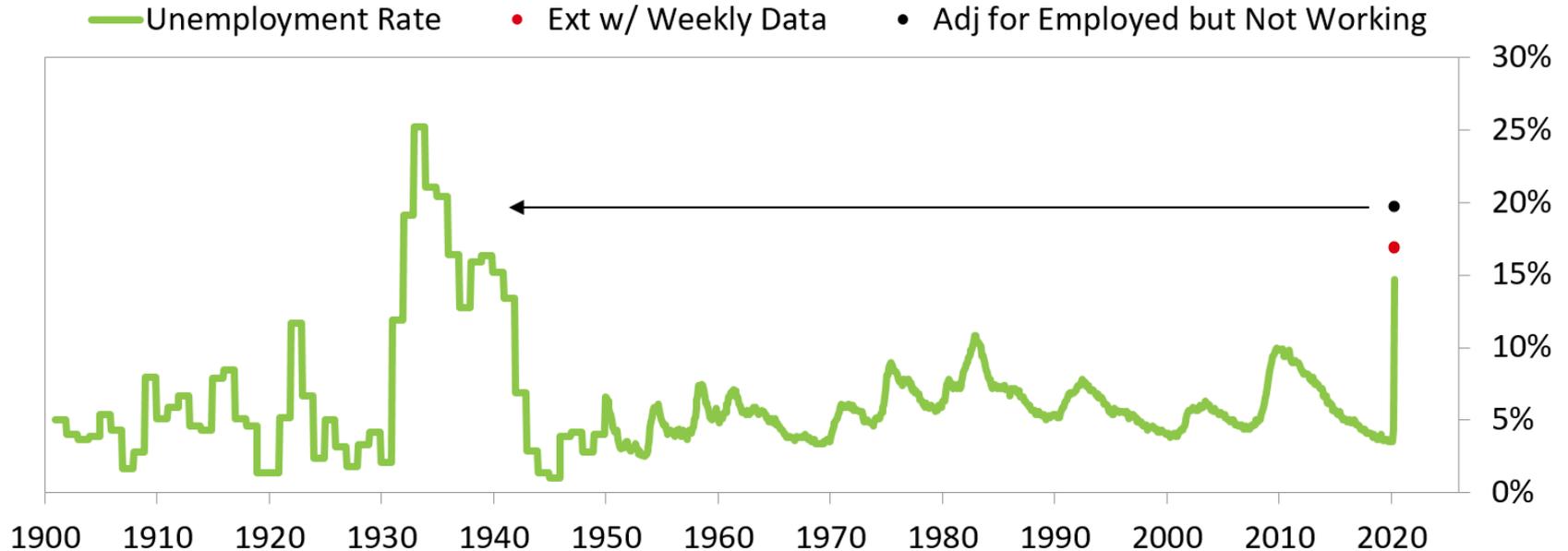
Taking direct actions with direct effects, with hoped-for indirect effects.

- 1) Central bank prints to buy bonds and other assets (but not all assets).
- 2) How much will be re-invested in other assets vs. accumulated as reserves?
- 3) And then, will those funds be spent, turning the flywheel?



Unemployment as a Metric for Income

USA Unemployment Rate



Updated as of May 10, 2020. Estimates are based on Bridgewater analysis. For information about the data sources used to inform the analysis in this outlook and other important information, please review the "Important Disclosures and Other Information" located at the end of the presentation.

Differentiation Will Dominate Outcomes

Example: Impact on US Corporate Earnings When Unemployment Rate is at...

Sector	5%	10%	15%	20%
Airlines	-38%	-85%	-96%	-99%
Auto and Parts	-33%	-80%	-94%	-98%
Hotels	-19%	-58%	-78%	-89%
Broadcasting	-18%	-55%	-76%	-87%
Household Durables	-15%	-49%	-69%	-81%
Publishing	-12%	-41%	-60%	-73%
Retailers	-11%	-39%	-58%	-71%
Media	-11%	-37%	-56%	-69%
Apparel	-9%	-30%	-47%	-60%
Biotechnology	-7%	-27%	-42%	-54%

Sector	5%	10%	15%	20%
Restaurants	-6%	-22%	-36%	-47%
Telecom Services	-6%	-21%	-34%	-45%
Food and Drug Retailers	-5%	-19%	-31%	-41%
Tobacco	-4%	-17%	-27%	-37%
Utilities	-3%	-13%	-22%	-30%
Pharmaceuticals	-3%	-13%	-21%	-29%
Healthcare	-3%	-11%	-19%	-26%
Personal Care	-3%	-11%	-18%	-25%
Beverages	-3%	-10%	-17%	-23%
Food Producers	-3%	-10%	-16%	-23%

The Strain of a \$27 Trillion Hole in Global Corporate Income Will be Felt Unevenly

Reconciling Top-down to Bottom-up Income and Balance Sheets (USD, Bln)

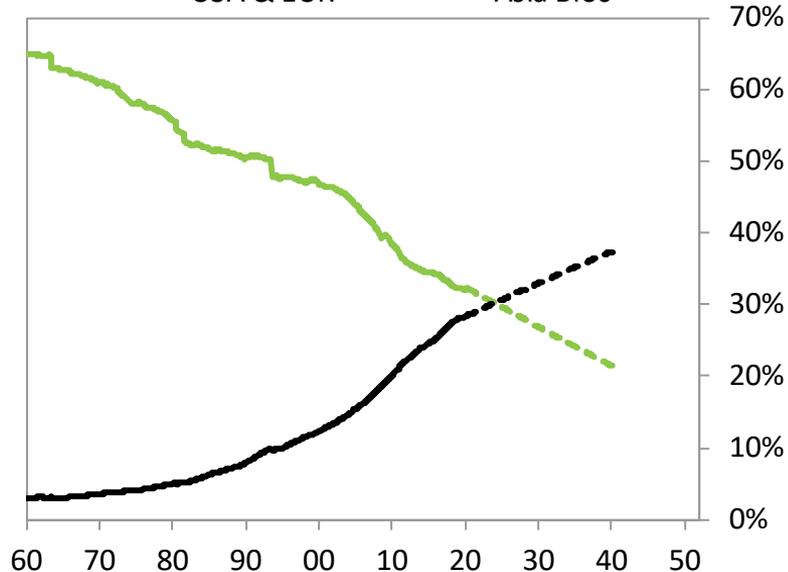
	Global Total	Global Listed	Global Unlisted	USA	EUR	JPN	CHN	GBR	CAN	AUS	KOR	BRZ	SAF	IND	Rest of World Total
Est. Revenue Decline	-27,377	-10,192	-17,185	-5,447	-4,417	-1,555	-6,185	-859	-550	-331	-509	-428	-81	-1,267	-5,749
Est. Revenue Decline %GDP	-35%	-13%	-22%	-25%	-34%	-30%	-44%	-31%	-34%	-26%	-33%	-34%	-30%	-51%	-38%
Immediate Cuts w/ Less Output	21,222	7,642	13,579	4,166	3,356	1,224	4,920	652	402	250	400	310	62	1,034	4,445
- Labor Costs	3,726	1,243	2,483	854	591	223	751	130	66	48	74	54	12	162	760
- Intermediate Goods	17,495	6,400	11,096	3,312	2,765	1,001	4,168	522	335	202	327	256	50	872	3,685
Cuts w/ Weaker Cyclical Conditions	4,592	2,002	2,590	1,277	734	228	826	130	145	73	73	69	17	151	871
- Capex	2,949	1,080	1,868	650	461	158	566	73	94	42	61	50	13	117	662
- Buybacks / M&A / Dividends	1,643	922	721	626	273	69	259	57	50	31	12	19	5	33	209
Remaining Capital Need (Sum of Negatives)	-2,128	-678	-1,451	-544	-163	-48	-457	-37	-55	-35	-46	-22	-14	-138	-570
Memo: 2019 Profits	14,874	7,052	7,822	3,994	2,355	917	2,228	509	384	249	330	283	59	391	3,176
Memo: Est 2020 Profits	8,718	4,502	4,216	2,713	1,295	585	962	302	235	168	221	166	40	157	1,873
Memo: Profit Change (% YoY)	-41%	-36%	-46%	-32%	-45%	-36%	-57%	-41%	-39%	-32%	-33%	-41%	-32%	-60%	-41%

Updated as of April 28, 2020. Based on Bridgewater analysis. For information about the data sources used to inform the analysis in this outlook and other important information, please review the "Important Disclosures and Other Information" located at the end of the presentation.

The Rise of the Asia Bloc Will Produce Opportunity and Conflict

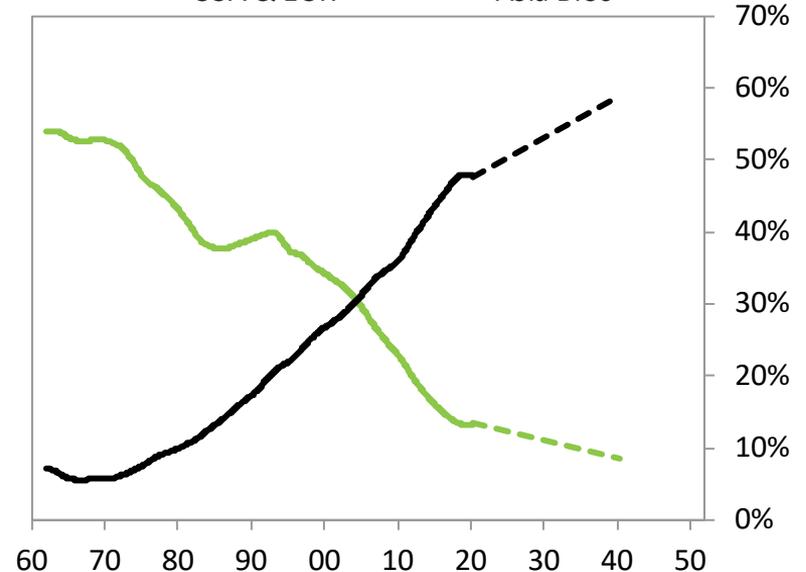
Share of Global Output

— USA & EUR — Asia Bloc



Contribution to Global Growth

— USA & EUR — Asia Bloc



Updated as of May 11th 2020. Share of output and contribution to global growth are based on estimates of long-term potential. Asia bloc includes CHN, HKG, SGP, KOR, MAL, TAI, TLD. For information about the data sources used to inform the analysis in this outlook and other important information, please review the "Important Disclosures and Other Information" located at the end of the presentation.

What to Expect

- A slow grind from a depressed level of output.
- The level of economic activity matters, not just growth rates.
- Accumulated impacts from balance sheet strength or weakness.
- Abundant liquidity favors some assets, cash flow deficiency hurts others.
- Differentiation across companies, countries and regions.
- Acute societal tradeoffs between economies and mortality.

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