

WORLD ECONOMIC OUTLOOK

WORLD FINANCIAL MARKETS - WORLD FINANCIAL STATE - TAIWAN - WAR IN UKRAINE

HUGHES ECONOMICS (HE) – December 2022

The current review below calculates probabilities for Financial Markets outcomes, the situation over Taiwan, the possibility of another depression and the war in Ukraine. All papers as below are available on this website as are various spreadsheets in **xlsx** format. All calculations below employed the **WEOdec.xlsx** spreadsheet using **LoHiProbs.xlsx** methodology. Note that the Low and High Probabilities in the tables below correspond to the Low and High Pairwise values and not the probability values themselves.

Probability calculations below for the scenarios outlined are explained in **Structuring Probability Assessments** available at <https://doi.org/10.17265/1537-1506/2020.05.003>. Also **Thinking Probabilistically** available at <https://doi.org/10.17265/1537-1506/2021.05.002>, **Thinking Probabilistically Revisited** available at <https://doi.org/10.17265/1537-1506/2022.01.001>, **A New Approach to Probability Assessment** available at <https://doi.org/10.17265/1537-1506/2022.01.003> and **Probability Assessment** available at <https://doi.org/10.17265/2328-2185/2022.05.006>. This last article summarizes the methodology used here.

WORLD FINANCIAL MARKETS

As stated previously, three possible scenarios are proposed for the next 6 months as listed below in order of increasing likelihood:

- **TINA**: There is no alternative, and the Dow rises significantly to 40,000+.
- **SQ**: Status Quo, no major moves for the Dow in the range 30,000 – 35,000. Current Dow is around 34,000.
- **BB**: Bubble bursts and Dow corrects to below 30,000 or a 10%+ correction

Recently the Dow has been oscillating between the **BB** and **SQ** scenarios. Several commentators continue to predict a major correction into **BB** territory, and **HE** believes this scenario to be the likeliest outcome with a very hawkish Fed in evidence. Current probabilities are outlined below, with **BB** now an increased chance.

PROBABILITIES ON WORLD FINANCIAL MARKETS FOR THE NEXT 6 MONTHS

Scenarios		Pairwise Range		Probabilities						More Likely Value
Events	Ratios	Low	High	Low	High	Average	Final	%	Previous	
TINA	Base = 1	1.00	1.00	0.03846	0.02326	0.03086	0.031	3	5	1.00
SQ	SQ/TINA	10.00	12.00	0.38462	0.27907	0.33184	0.332	33	40	10.75
BB	BB/SQ	1.50	2.50	0.57692	0.69767	0.63730	0.637	64	55	1.92
				1.00000	1.00000	1.00000	1.000	100	100	

WORLD FINANCIAL STATE

Scenarios in order of increasing likelihood are as follows:

- **MB** or Mild Boom: Revamping of world infrastructure in light of Ukraine sees markets rise for 10%+ gains.
- **D** or Depression: High inflation and continued COVID-19 pressures, policy mistakes and global financial collapse.
- **SQ** or Status Quo: All markets steady, significant but not rampart inflation, continued but containable COVID episodes.
- **MR** or Mild Recession: World unemployment rises, with continuing problems of COVID, Ukraine, supply chain realignments.

PROBABILITIES ON THE WORLD FINANCIAL STATE FOR THE NEXT 6 MONTHS

Scenarios		Pairwise Range		Probabilities						More Likely Value
Events	Ratios	Low	High	Low	High	Average	Final	%	Previous	
MB	Base = 1	1.00	1.00	0.00917	0.00452	0.00685	0.007	1	2	1.00
D	D/MB	3.00	4.00	0.02752	0.01810	0.02281	0.023	2	6	3.33
SQ	SQ/D	7.00	9.00	0.19266	0.16290	0.17778	0.178	18	27	7.79
MR	MR/SQ	4.00	5.00	0.77064	0.81448	0.79256	0.793	79	65	4.46
				0.99999	1.00000	1.00000	1.001	100	100	

The recessionary scenarios show increased likelihood over last time at 81% now versus 71% previously. **D** still seems very unlikely at only a 2% chance, although degrees of “mild” as in **MR** are possible. COVID continues to be a major problem for China.

TAIWAN

The scenarios for developments involving Taiwan from least to most likely are as follows:

- **TINO**: Taiwan invasion by mainland China with no aid from any country to help repel the invaders.
- **TIUS**: Taiwan invasion by mainland China and the US assists Taiwan in its defense, possibly with other allies.
- **NOTI**: No invasion of Taiwan but Chinese harassment of Taiwan continues.

The scenarios hold for the near future defined by the next 5 years.

PROBABILITIES ON TAIWAN DEVELOPMENTS OVER THE NEAR FUTURE

Scenarios		Pairwise Range		Probabilities						More Likely Value
Events	Ratios	Low	High	Low	High	Average	Final	%	Previous	
TINO	Base = 1	1.00	1.00	0.03846	0.02000	0.02923	0.029	3	5	1.00
TIUS	TIUS/TINO	5.00	7.00	0.19231	0.14000	0.16615	0.166	17	21	5.68
NOTI	NOTI/TIUS	4.00	6.00	0.76923	0.84000	0.80462	0.805	80	74	4.84
				1.00000	1.00000	1.00000	1.000	100	100	

Probabilities show little change over the last month, but a small increase for **NOTI** is encouraging.

THE WAR IN UKRAINE

The ordering of scenarios below reflects **HE's** assessment of the relative likelihoods as in least to most likely:

- **RV** : Russian Victory or Russia effectively controls Ukraine.
- **UV** : Ukraine drives Russia out of Ukraine but loses Crimea to Russia.
- **NC** : Negotiated ceasefire with Ukraine possibly yielding some territory to Russia including Crimea.
- **OS** : Ongoing struggle on Ukraine territory.

PROBABILITIES ON POSSIBLE OUTCOMES TO THE WAR IN UKRAINE

Scenarios		Pairwise Range		Probabilities						More Likely Value
Events	Ratios	Low	High	Low	High	Average	Final	%	Previous	
RV	Base = 1	1.00	1.00	0.01290	0.00599	0.00945	0.009	1	2	1.00
UV	UV/RV	3.00	4.00	0.03871	0.02305	0.03133	0.031	3	4	3.32
NC	NC/UV	7.00	9.00	0.27097	0.21557	0.24327	0.243	24	27	7.76
OS	OS/NC	2.50	3.50	0.67742	0.75449	0.71596	0.716	72	67	2.94
				1.00000	1.00000	1.00001	0.999	100	100	

Ukraine continues to make gains, but Russia does not appear to be ready to negotiate although the **NC** outcome would be better for the world economy.

BOTTOM LINES

Mohamed El-Erian is the latest commentator to predict a severe recession coming up, but the US stock market continues in **SQ** territory. The US elections went better for the Democrats than predicted and perhaps the looming gridlock in Congress means markets need not worry about major changes. A mild winter in Europe may alleviate energy worries to some extent.

Word Count 927, 1st December 2022.