

# APEX

forecasting

Q4 2020



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# Apex

## Analyst price expectations

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Fastmarkets Apex is two-in-one product. First, it provides a ranking of the best analysts by forecast accuracy and metal on a quarterly basis. Secondly, it combines the best forecasts to provide a collective intelligence forecast.

Apex contains leader boards of analysts based upon the accuracy of their most recent price predictions for the base metals traded on the London Metal Exchange, precious metals and iron ore. Fastmarkets Apex answers three questions: Where will base metal prices be trading in the future? Which bank, brokerage or research company's published price expectations have been most accurate previously? How a collective intelligence forecast biased to the most accurate analysts would be? Fastmarkets takes forecasts from established credible and independent analysts/desks and combines them in a weighted average to form a consensus forecast. The weightings are created from the past performance of the analysts, in both long-term and short-term forecasting, allowing those with the greatest skills and market understanding to have the greatest influence in the consensus forecast.

### Analyst rankings:

The Apex is open to all credible independent analysts/desks, although each institution is limited to one forecast, as being representative of the whole company. Each analyst/desk provides the latest forecasts for each metal at the turn of each quarter. At the end of the quarter a definitive ranking of accuracy in the forecasts will be calculated and published.

The accuracy rating reflects the % variance of the actual from the forecast. It is calculated as 100% minus the variance in % to the actual benchmark cash or 3m price. The analyst forecasts may be provided as either cash or 3- month prices and the accuracy of the forecast will be rated against these averages. All prices provided in c/lb will be converted to \$/tonne at 2204.62 lb/tonne. The overall ranking of base metals, precious metals and steel raw material is a straight average of the most accurate (4/6th, 2/3rd and both, respectively) individual metal forecasts from each analyst.

**The metals included in the Apex report are: for Base metals: Copper, Aluminium, Nickel, Lead, Zinc, Tin. For Precious metals: Gold, Silver, Platinum, Palladium. For Steel Raw materials: Iron Ore and Coking Coal.**

### Collective Intelligence

Apex also provides a weighted average of forecasts. The use of weightings on accuracy allows the best analysts to have the greatest say in the forecasts. The top five most accurate forecasters will see their forecasts included in the weighted forecast. The most accurate forecaster will see their forecast receive the highest weighting in the final calculation. The analyst weightings are updated quarterly.

### Annual Forecasts

Forecasts received for APEX calculations each quarter of the calendar year will be ranked for accuracy and averaged with results to come out during the first quarter of the following year.

For inclusion data must be received by 12am London time on the 16th day of the first month of the quarter. Any data provided after this deadline will not be updated. In this situation the most recent data provided will be used for one quarter. After this time the data will be excluded.

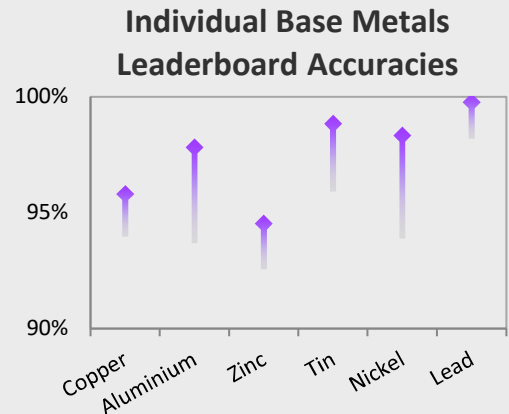
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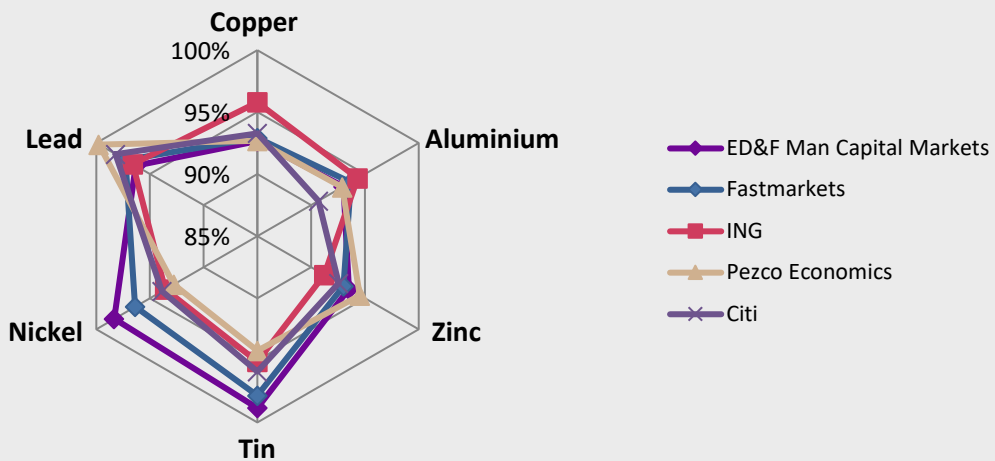
# Base Metals Leaderboard Q4 2020

## Rank Analyst

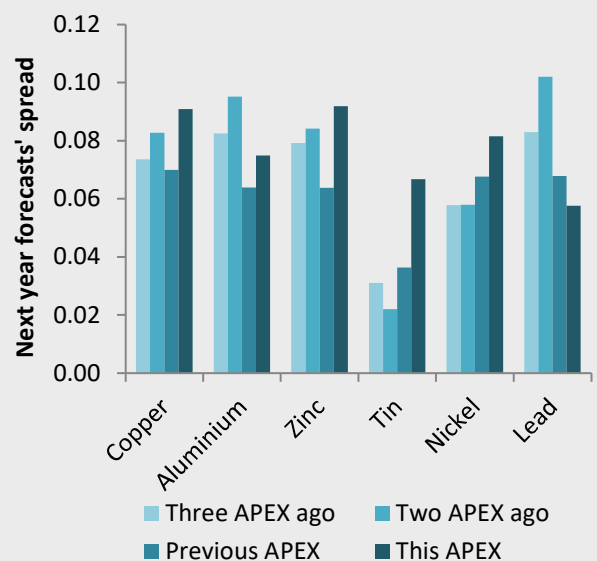
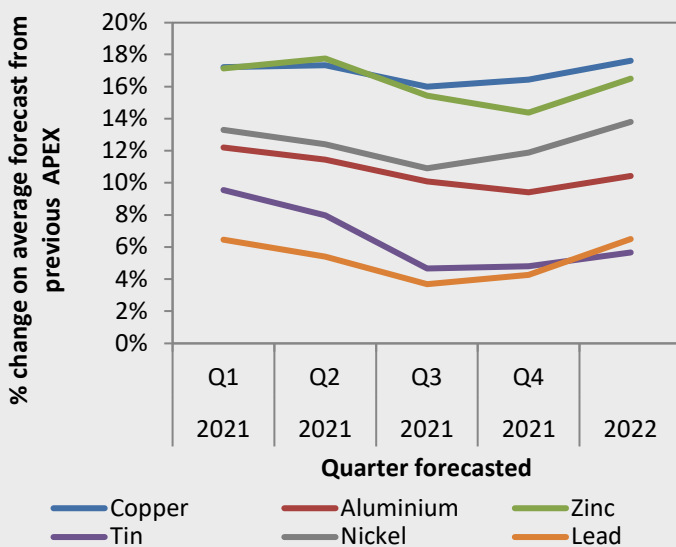
Rank	Analyst	Accuracy
1	ED&F Man Capital Markets - Edward Meir	96.75%
2	Fastmarkets	96.30%
3	ING - Wenyu Yao	95.45%
4	Pezco Economics - Helcio Takeda	95.35%
5	Citi - Max Layton	95.32%



## OVERALL BASE METALS TOP 5 ANALYSTS



## CHANGE IN FORECASTS FROM PREVIOUS APEXs



This graph shows how forecasts changed in % from the previous APEX for the X-axis dates. Positive % means participants are more bullish than on previous APEX.

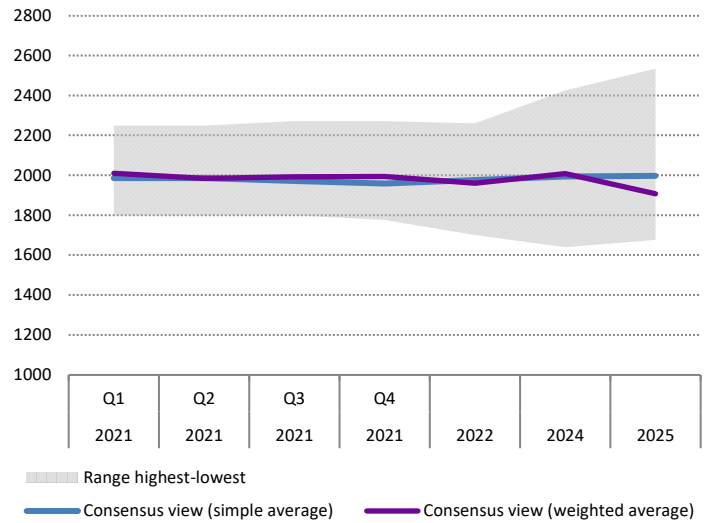
This graph shows the level of forecast consensus. Lower values = higher consensus.

# Aluminium

## ALUMINIUM LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	Morningstar - Mathew Hodge	97.81%
2	Investec - Hunter Hillcoat	95.28%
3	ING - Wenyu Yao	94.32%
4	ANZ - Daniel Hynes, Soni Kumari	93.95%
5	Fastmarkets	93.69%

## Fastmarkets Apex Aluminium Forecasts (\$/tonne cash price)



## ALUMINIUM AVERAGES

	2021	2021	2021	2021	2022	2023	2024	2025	2026
	Q1	Q2	Q3	Q4					
Consensus view (weighted average)	2,010	1,983	1,993	1,994	1,960	2,051	2,007	1,908	
Consensus view (simple average)	1,986	1,985	1,971	1,959	1,977	1,997	1,993	1,998	2,205
Lowest	1,800	1,800	1,800	1,775	1,700	1,604	1,640	1,677	2,205
Highest	2,249	2,249	2,271	2,271	2,260	2,315	2,425	2,535	2,205
All forecasts spread (standard deviation / mean)	5.0%	6.1%	6.8%	7.5%	8.7%	12.4%	12.1%	13.0%	

## ALUMINIUM FORECASTS

Forecast date	Analyst/desk	2021	2021	2021	2021	2022	2023	2024	2025	2026
		Q1	Q2	Q3	Q4					
15/01/2021	Fastmarkets	2,020	2,010	2,000	1,980					
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	2,000	1,875	1,900	1,925	1,920	2,300	2,200		
15/01/2021	Citi - Max Layton	*	2,050	2,000	2,100	2,150	2,250			
03/01/2021	ING - Wenyu Yao	*	1,980							
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	*	2,050	1,995	2,050	2,015	1,975	1,975	1,975	
15/01/2021	RBCCM - Sam Crittenden		1,874	1,874	1,874	1,874	1,874	1,764	1,764	
12/01/2021	Capital Economics - Caroline Bain		1,962	1,925	1,875	1,825	1,800	1,750		
15/01/2021	Bank Muscat	*	2,008							
14/01/2021	StoneX - Natalie Scott-Gray	*	2,020			2,141				
15/01/2021	ED&F Man Capital Markets - Edward Meir	*	1,928	1,920	1,820	1,780				
13/01/2021	ABN Amro - Casper Burgering		2,041	2,070	2,080	2,100	2,154			
12/01/2021	Commerzbank - Daniel Briesemann	*	2,050	2,100	2,000	1,900	1,975			
15/01/2021	EIU - Rajvinder Kaur		1,902	1,958	1,876	1,852	1,777	1,825	1,900	1,940
15/01/2021	Morningstar - Mathew Hodge		1,800	1,800	1,800	1,800	1,700	1,604	1,640	1,677
08/01/2021	Investec - Hunter Hillcoat		2,249	2,249	2,271	2,271	2,260	2,249	2,183	2,138
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove		2,094	2,205	2,205	2,205	2,205	2,315	2,425	2,535
15/01/2021	Emirates NBD - Edward Bell	*	1,920	1,950	1,950	2,025				
20/12/2020	Dept. Industry & Science - Gov. of Australia		1,850	1,869	1,888	1,906				
13/01/2021	Pezco Economics - Helcio Takeda		2,058	2,119	2,113	2,075	2,012	1,996	1,980	1,973
15/01/2021	TD Securities - Bart Melek	*	1,900	1,900	1,850	1,775	1,813			
11/01/2021	UBS - Glyn Lawcock		1,940	1,918	1,874	1,852	1,896	1,830	1,874	1,984
										2,205

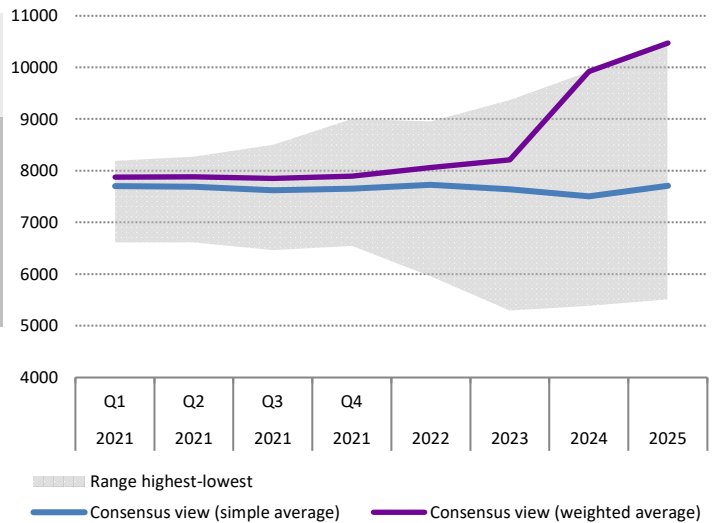
\* Three-month prices

# Copper

## COPPER LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	ING - Wenyu Yao	95.80%
2	Jefferies - Chris LaFemina, Patricia Hove	95.36%
3	StoneX - Natalie Scott-Gray	95.05%
4	ABN Amro - Casper Burgering	94.43%
5	Capital Economics - Caroline Bain	93.97%

## Apex Copper Forecasts (\$/tonne cash price)



## COPPER AVERAGES

	2021	2021	2021	2021	2022	2023	2024	2025	2026
	Q1	Q2	Q3	Q4					
Consensus view (weighted average)	7,872	7,879	7,852	7,892	8,061	8,207	9,921	10,472	
Consensus view (simple average)	7,703	7,689	7,622	7,651	7,728	7,638	7,504	7,709	7,496
Lowest	6,614	6,614	6,460	6,540	5,952	5,291	5,387	5,508	7,496
Highest	8,190	8,272	8,500	9,000	8,950	9,370	9,921	10,472	7,496
All forecasts spread (standard deviation / mean)	5.8%	6.4%	7.7%	9.1%	11.5%	15.9%	18.8%	20.0%	

## COPPER FORECASTS

Forecast date	Analyst/desk	2021	2021	2021	2021	2022	2023	2024	2025	2026
		Q1	Q2	Q3	Q4					
15/01/2021	Fastmarkets	8,190	7,555	7,045	7,315					
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	8,000	7,500	8,500	9,000	8,800	8,000	6,500		
15/01/2021	Citi - Max Layton	*	7,200	7,500	7,800	8,000	8,000			
03/01/2021	ING - Wenyu Yao	*	7,980							
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	*	8,050	8,250	8,450	8,850	8,950	8,950	8,950	
15/01/2021	RBCCM - Tyler Broda		7,937	7,937	7,716	7,275	6,614	6,614	6,614	
12/01/2021	Capital Economics - Caroline Bain		7,675	7,525	7,350	7,125	6,800	6,750		
15/01/2021	Bank Muscat		7,945							
14/01/2021	StoneX - Natalie Scott-Gray	*	7,768	7,650	7,700	7,900	8,250	8,500		
15/01/2021	ED&F Man Capital Markets - Edward Meir	*	7,890	8,090	7,850	7,750				
13/01/2021	ABN Amro - Casper Burgering		7,892	8,185	8,200	8,275	8,376			
12/01/2021	Commerzbank - Daniel Briesemann	*	7,500	8,000	7,500	7,300	7,450			
15/01/2021	EIU - Rajvinder Kaur		7,600	7,400	7,000	6,800	7,075	6,393	6,724	6,834
15/01/2021	Morningstar - Mathew Hodge		6,614	6,614	6,614	6,614	5,952	5,291	5,387	5,508
08/01/2021	Investec - Hunter Hillcoat		7,760	7,760	7,937	7,937	8,267	8,818	8,488	8,377
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove		8,047	8,157	8,157	8,267	8,818	9,370	9,921	10,472
15/01/2021	Emirates NBD - Edward Bell	*	7,800	8,000	8,000	8,200				
20/12/2020	Dept. Industry & Science - Gov. of Australia		6,770	6,690	6,460	6,540				
13/01/2021	Pezco Economics - Helcio Takeda		7,962	8,272	8,221	7,988	7,760	7,694	7,676	7,640
15/01/2021	TD Securities - Bart Melek	*	7,025	7,075	7,125	7,150	7,094			
11/01/2021	UBS - Glyn Lawcock		8,157	7,937	7,496	7,275	7,716	7,275	7,275	7,275

\* Three-month prices

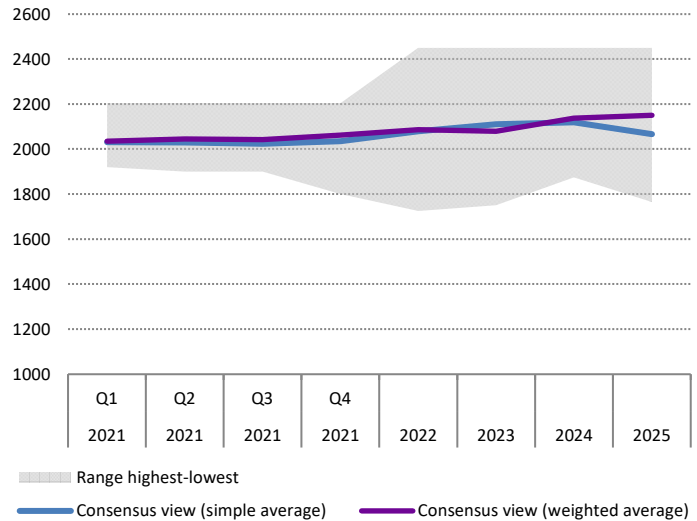
# Lead

## LEAD LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	<b>Pezco Economics - Helcio Takeda</b>	<b>99.76%</b>
2	EIU - Rajvinder Kaur	99.02%
3	Emirates NBD - Edward Bell	98.75%
4	UBS - Glyn Lawcock	98.55%
5	Citi - Max Layton	98.19%

## Apex Lead

Forecasts (\$/tonne cash price)



## LEAD AVERAGES

	2021	2021	2021	2021	2022	2023	2024	2025	2026
	Q1	Q2	Q3	Q4					
Consensus view (weighted average)	2,035	2,044	2,042	2,062	2,086	2,080	2,138	2,151	2,370
Consensus view (simple average)	2,031	2,029	2,024	2,035	2,078	2,110	2,120	2,065	2,370
Lowest	1,920	1,900	1,900	1,800	1,725	1,750	1,874	1,764	2,370
Highest	2,205	2,205	2,205	2,205	2,450	2,450	2,450	2,450	2,370
All forecasts spread (standard deviation / mean)	4.3%	4.2%	4.1%	5.8%	8.8%	8.9%	8.3%	12.1%	

## LEAD FORECASTS

Forecast date	Analyst/desk	2021	2021	2021	2021	2022	2023	2024	2025	2026	
		Q1	Q2	Q3	Q4						
15/01/2021	Fastmarkets	2,075	2,050	2,100	2,200						
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	2,000	1,950	2,000	2,050	2,050	2,100	2,100			
15/01/2021	Citi - Max Layton	*	2,000	2,100	2,100	2,100	2,100				
03/01/2021	ING - Wenyu Yao	*	2,150								
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	*	1,975	1,995	2,050	2,150	2,450	2,450	2,450		
15/01/2021	RBCCM - Sam Crittenden		2,205	2,205	2,205	2,205	2,205	1,874	1,874		
12/01/2021	Capital Economics - Caroline Bain		1,988	1,975	1,938	1,913	1,850	1,750			
15/01/2021	Bank Muscat	*	2,004								
14/01/2021	StoneX - Natalie Scott-Gray	*	2,035			2,231					
15/01/2021	ED&F Man Capital Markets - Edward Meir	*	1,945	1,955	1,925	1,890					
12/01/2021	Commerzbank - Daniel Briesemann	*	2,050	2,100	1,900	1,800	1,725				
15/01/2021	EIU - Rajvinder Kaur		1,920	1,900	2,000	2,100	2,143	2,249	2,227	2,161	
08/01/2021	Investec - Hunter Hillcoat		1,940	1,940	1,984	1,984	2,028	2,072	2,028	1,918	
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove		2,094	2,094	2,094	2,094	2,205	2,205	2,094	1,764	
15/01/2021	Emirates NBD - Edward Bell	*	1,998	2,023	2,023	2,049					
13/01/2021	Pezco Economics - Helcio Takeda		2,052	2,103	2,103	2,077	2,035	1,996	1,982	1,977	
15/01/2021	TD Securities - Bart Melek	*	1,925	1,950	1,950	1,925	1,931				
11/01/2021	UBS - Glyn Lawcock		2,205	2,094	1,984	1,984	2,067	1,973	2,205	2,315	2,370

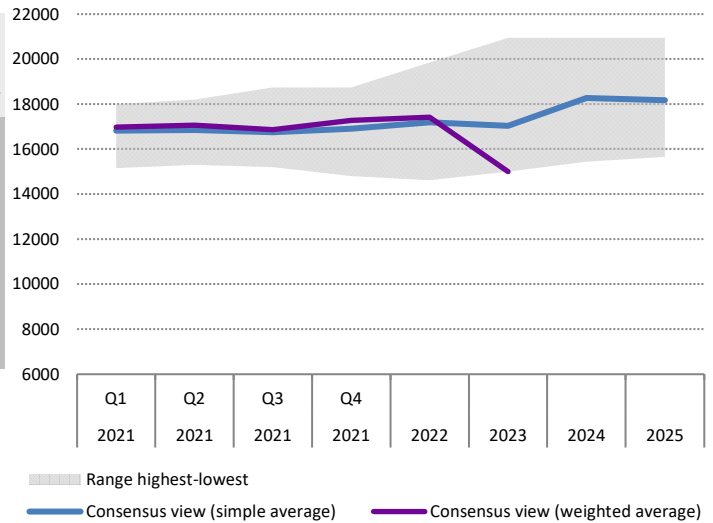
\* Three-month prices

# Nickel

## NICKEL LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	ED&F Man Capital Markets - Edward Meir	98.33%
2	Fastmarkets	96.36%
3	ABN Amro - Casper Burgering	94.08%
4	Citi - Max Layton	93.88%
4	Commerzbank - Daniel Briesemann	93.88%
4	TD Securities - Bart Melek	93.88%

## Apex Nickel Forecasts (\$/tonne cash price)



## NICKEL AVERAGES

	2021	2021	2021	2021	2022	2023	2024	2025	2026
	Q1	Q2	Q3	Q4					
Consensus view (weighted average)	16,971	17,061	16,856	17,267	17,414	15,000			
Consensus view (simple average)	16,820	16,843	16,755	16,899	17,191	17,026	18,274	18,166	15,984
Lowest	15,147	15,298	15,200	14,800	14,625	15,000	15,432	15,653	15,984
Highest	18,000	18,200	18,739	18,739	19,841	20,944	20,944	20,944	15,984
All forecasts spread (standard deviation / mean)	5.5%	5.8%	7.1%	8.1%	10.2%	11.2%	9.8%	10.0%	

## NICKEL FORECASTS

Forecast date	Analyst/desk	2021	2021	2021	2021	2022	2023	2024	2025	2026
		Q1	Q2	Q3	Q4					
15/01/2021	Fastmarkets	17,770	16,600	16,000	18,200					
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	18,000	17,600	18,150	18,700	18,700	18,500	19,000		
15/01/2021	Citi - Max Layton	*	16,250	16,250	15,500	15,000	14,625	15,000		
03/01/2021	ING - Wenyu Yao	*	17,980							
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	*	17,650	17,750	17,850	17,950	18,500	18,500	18,500	
15/01/2021	RBCCM - Sam Crittenden		15,432	15,432	15,432	15,432	15,432	17,637	17,637	
12/01/2021	Capital Economics - Caroline Bain		16,527	16,250	15,750	15,250	15,150	15,600		
15/01/2021	Bank Muscat	*	16,655							
14/01/2021	StoneX - Natalie Scott-Gray	*	17,062			18,200				
15/01/2021	ED&F Man Capital Markets - Edward Meir	*	17,983	18,200	17,500	17,400				
13/01/2021	ABN Amro - Casper Burgering		17,673	18,115	18,385	18,725	19,499			
12/01/2021	Commerzbank - Daniel Briesemann	*	16,000	17,000	17,500	18,000	19,300			
15/01/2021	EIU - Rajvinder Kaur		15,500	16,000	15,200	14,800	15,725	15,190	15,432	15,653
08/01/2021	Investec - Hunter Hillcoat		16,094	16,094	16,314	16,314	16,424	17,086	18,519	19,400
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove		17,637	18,188	18,739	18,739	19,841	20,944	20,944	20,944
15/01/2021	Emirates NBD - Edward Bell	*	16,500	16,750	17,000	17,250				
20/12/2020	Dept. Industry & Science - Gov. of Australia		15,147	15,298	15,375	15,452				
13/01/2021	Pezco Economics - Helcio Takeda		17,311	18,068	17,900	17,269	16,505	16,371	16,316	16,288
15/01/2021	TD Securities - Bart Melek	*	16,150	16,200	16,250	16,275	16,231			
11/01/2021	UBS - Glyn Lawcock		17,086	16,535	15,984	16,535	16,535	17,637	19,842	18,739
									15,984	

\* Three-month prices

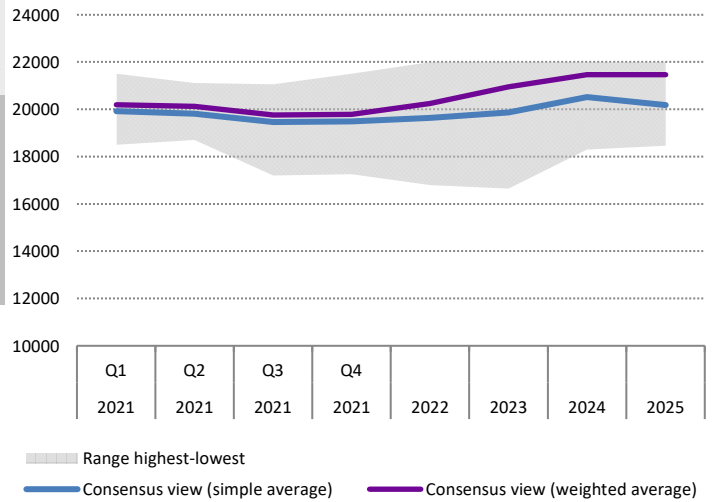


# Tin

## TIN LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	ED&F Man Capital Markets - Edward Meir	98.84%
2	Fastmarkets	97.84%
3	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	96.97%
4	UBS - Glyn Lawcock	96.71%
5	Citi - Max Layton	95.91%

## Apex Tin Forecasts (\$/tonne cash price)



## TIN AVERAGES

	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022	2023	2024	2025	2026
Consensus view (weighted average)	20,195	20,126	19,769	19,779	20,246	20,947	21,472	21,472	20,944
Consensus view (simple average)	19,921	19,815	19,460	19,483	19,642	19,858	20,517	20,174	20,944
Lowest	18,500	18,700	17,200	17,250	16,800	16,650	18,298	18,453	20,944
Highest	21,500	21,110	21,050	21,500	22,000	22,000	22,000	22,000	20,944
All forecasts spread (standard deviation / mean)	5.1%	4.3%	6.0%	6.7%	8.3%	10.1%	8.0%	7.9%	

## TIN FORECASTS

Forecast date	Analyst/desk	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022	2023	2024	2025	2026
15/01/2021	Fastmarkets	21,500	20,280	18,705	19,555					
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	18,750	19,500	20,000	21,500	21,500	22,000	22,000		
15/01/2021	Citi - Max Layton	* 19,000	19,500	20,000	20,000	20,000	21,000			
03/01/2021	ING - Wenyu Yao	* 21,300								
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	* 20,950	21,000	21,050	21,100	22,000	22,000	22,000	22,000	
12/01/2021	Capital Economics - Caroline Bain	20,022	19,000	18,000	17,250	16,800	16,650			
15/01/2021	Bank Muscat	* 20,335								
15/01/2021	ED&F Man Capital Markets - Edward Meir	* 20,786	21,110	20,350	19,500					
12/01/2021	Commerzbank - Daniel Briesemann	* 19,500	20,000	19,500	19,000	19,800				
15/01/2021	EIU - Rajvinder Kaur	18,500	18,700	17,200	17,600	18,800	18,078	18,298	18,453	
15/01/2021	Emirates NBD - Edward Bell	* 19,500	19,500	20,000	20,000					
13/01/2021	Pezco Economics - Helcio Takeda	20,089	20,632	20,516	20,073	19,493	19,440	19,343	19,300	
11/01/2021	UBS - Glyn Lawcock	18,739	18,739	18,739	18,739	18,739	19,842	20,944	20,944	20,944

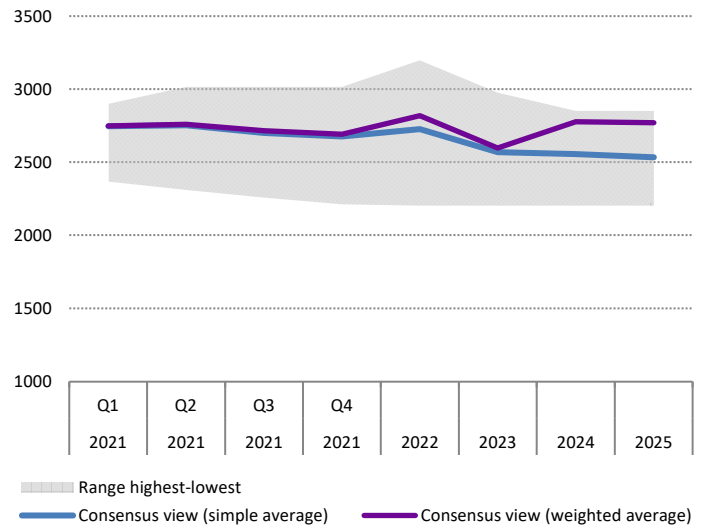
\* Three-month prices

# Zinc

## ZINC LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	<b>Pezco Economics - Helcio Takeda</b>	<b>94.53%</b>
2	ED&F Man Capital Markets - Edward Meir	93.50%
3	Fastmarkets	93.03%
4	ABN Amro - Casper Burgering	92.69%
5	Citi - Max Layton	92.56%

## Apex Zinc Forecasts (\$/tonne cash price)



## ZINC AVERAGES

	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022	2023	2024	2025	2026
Consensus view (weighted average)	2,748	2,758	2,716	2,690	2,820	2,597	2,777	2,769	
Consensus view (simple average)	2,746	2,753	2,701	2,676	2,725	2,568	2,556	2,533	2,417
Lowest	2,367	2,309	2,257	2,212	2,205	2,205	2,205	2,205	2,417
Highest	2,900	3,014	3,014	3,016	3,198	2,976	2,850	2,850	2,417
All forecasts spread (standard deviation / mean)	4.6%	7.0%	7.8%	9.2%	10.4%	11.4%	9.6%	10.1%	

## ZINC FORECASTS

Forecast date	Analyst/desk	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022	2023	2024	2025	2026
15/01/2021	Fastmarkets	2,750	2,550	2,500	2,480					
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	2,900	2,950	2,900	3,000	3,000	2,800	2,500		
15/01/2021	Citi - Max Layton	* 2,700	2,700	2,600	2,500	2,450	2,400			
03/01/2021	ING - Wenyu Yao	* 2,780								
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	* 2,785	2,815	2,845	2,865	2,850	2,850	2,850	2,850	
15/01/2021	RBCCM - Sam Crittenden	2,756	2,756	2,535	2,535	2,205	2,205	2,205	2,205	
12/01/2021	Capital Economics - Caroline Bain	2,715	2,625	2,488	2,363	2,275	2,250			
15/01/2021	Bank Muscat	* 2,787								
14/01/2021	StoneX - Natalie Scott-Gray	* 2,790				3,032				
15/01/2021	ED&F Man Capital Markets - Edward Meir	* 2,595	2,610	2,510	2,530					
13/01/2021	ABN Amro - Casper Burgering	2,818	2,915	2,955	2,995	3,198				
12/01/2021	Commerzbank - Daniel Briesemann	* 2,900	3,000	2,800	2,700	2,775				
15/01/2021	EIU - Rajvinder Kaur	2,700	2,850	2,680	2,600	2,613	2,337	2,425	2,469	
08/01/2021	Investec - Hunter Hillcoat	2,646	2,646	2,756	2,756	2,844	2,976	2,838	2,756	
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove	2,866	2,866	2,866	2,866	2,866	2,756	2,535	2,315	
15/01/2021	Emirates NBD - Edward Bell	* 2,869	2,943	2,943	3,016					
20/12/2020	Dept. Industry & Science - Gov. of Australia	2,367	2,309	2,257	2,212					
13/01/2021	Pezco Economics - Helcio Takeda	2,875	3,014	3,014	2,945	2,811	2,795	2,777	2,769	
15/01/2021	TD Securities - Bart Melek	* 2,675	2,725	2,725	2,700	2,700				
11/01/2021	UBS - Glyn Lawcock	2,646	2,535	2,535	2,425	2,535	2,315	2,315	2,370	2,417

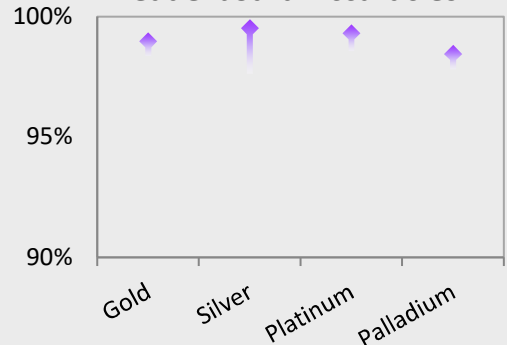
\* Three-month prices

# Precious Metals Leaderboard Q4 2020

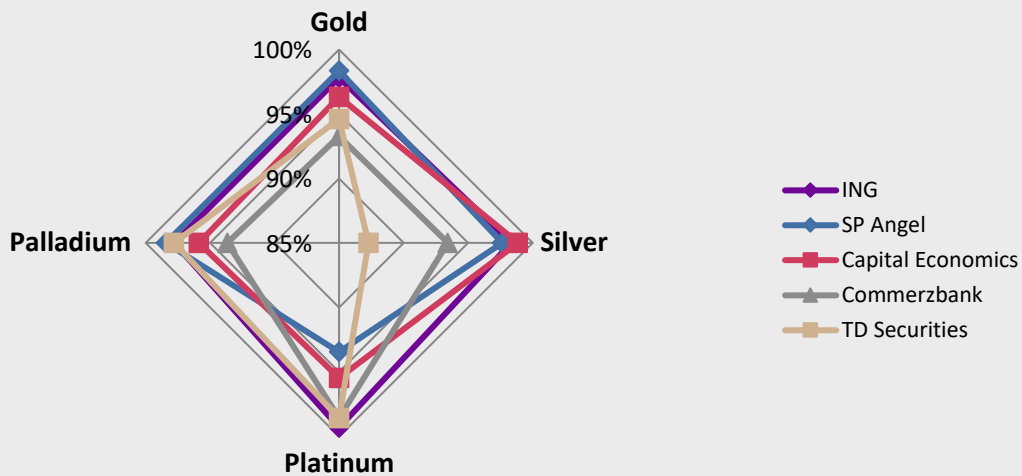
Rank Analyst

Rank	Analyst	Accuracy
1	ING - Wenyu Yao	98.32%
2	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	96.96%
3	Capital Economics - Caroline Bain	96.63%
4	Commerzbank - Daniel Briesemann	94.73%
5	TD Securities - Bart Melek	94.56%

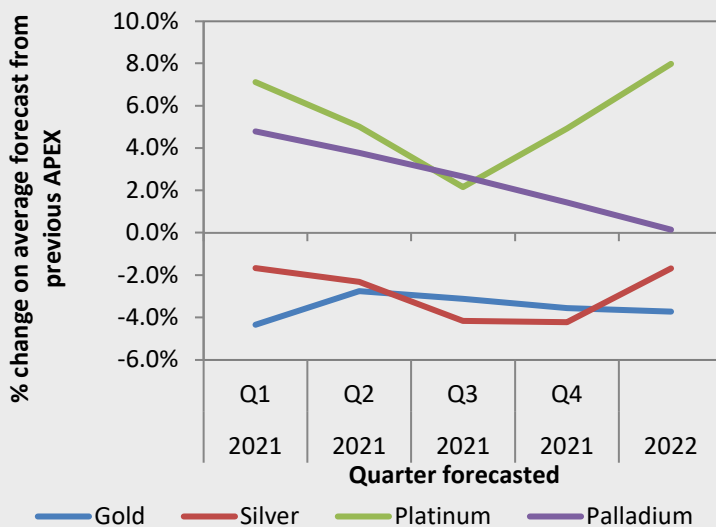
## Individual Precious Metals Leaderboard Accuracies



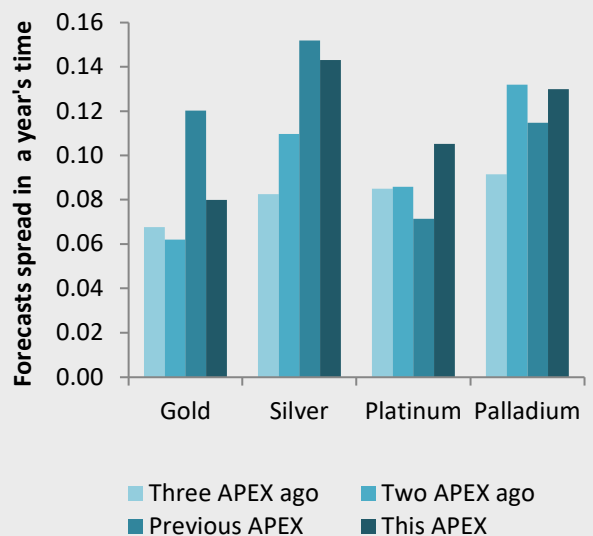
## OVERALL PRECIOUS METALS TOP 5 ANALYSTS



## CHANGE IN FORECASTS FROM PREVIOUS APEXs



This graph shows how forecasts changed in % from the previous APEX for the X-axis dates. Positive % means participants are more bullish than on previous APEX.



This graph shows the level of consensus. Lower values = higher consensus.

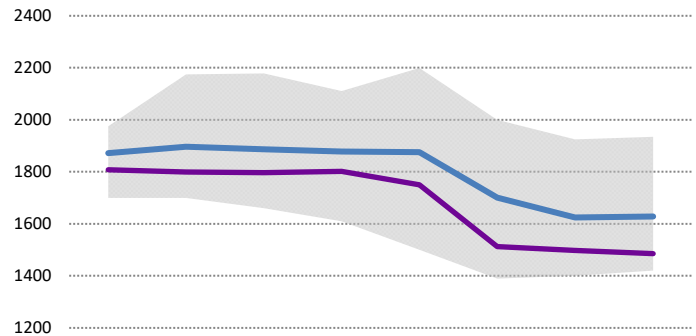
# Gold

## GOLD LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	ED&F Man Capital Markets - Edward Meir	98.97%
2	ABN Amro - Georgette Boele	98.68%
3	Dept. Industry & Science - Gov. of Australia	98.63%
4	Investec - Hunter Hillcoat	98.57%
5	Morningstar - Mathew Hodge	98.36%

## Apex Gold

Forecasts (\$/oz cash price)



Q1	Q2	Q3	Q4	2022	2023	2024	2025
2021	2021	2021	2021	2022	2023	2024	2025

Range highest-lowest

Consensus view (simple average)

Consensus view (weighted average)

## GOLD AVERAGES

	2021	2021	2021	2021	2022	2023	2024	2025	2026
	Q1	Q2	Q3	Q4					
Consensus view (weighted average)	1,808	1,800	1,797	1,802	1,750	1,512	1,498	1,486	
Consensus view (simple average)	1,872	1,897	1,887	1,878	1,875	1,701	1,625	1,628	1,500
Lowest	1,700	1,700	1,660	1,610	1,500	1,390	1,400	1,420	1,500
Highest	1,975	2,175	2,178	2,111	2,200	2,000	1,925	1,935	1,500
All forecasts spread (standard deviation / mean)	3.7%	7.0%	7.8%	8.0%	10.3%	12.0%	11.8%	12.1%	

## GOLD FORECASTS

Forecast date	Analyst/desk	2021	2021	2021	2021	2022	2023	2024	2025	2026
		Q1	Q2	Q3	Q4					
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	1,950	2,100	2,000	1,900	1,900	1,400	1,400		
15/01/2021	Citi - Max Layton	1,875	1,975	1,900	1,850	1,700	1,550			
03/01/2021	ING - Wenyu Yao	1,880								
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	1,855	1,875	1,895	1,915	1,925	1,925	1,925	1,925	
15/01/2021	RBCCM - Chris Louney	1,922	1,810	1,786	1,740	1,785	1,750	1,500	1,500	
12/01/2021	Capital Economics - Caroline Bain	1,898	1,900	1,900	1,900	1,850	1,775			
13/01/2021	StoneX - Rhona O'Connell	1,972	2,078	2,178	2,111	1,900	1,780	1,700	1,700	
15/01/2021	ED&F Man Capital Markets - Edward Meir	1,782	1,810	1,880	1,930					
11/01/2021	ABN Amro - Georgette Boele	1,918	1,938	1,963	1,988	2,050				
12/01/2021	Commerzbank - Daniel Briesemann	1,900	2,000	2,000	2,100	2,200				
15/01/2021	EIU - Rajvinder Kaur	1,890	1,840	1,775	1,750	1,600	1,500	1,450	1,420	
15/01/2021	Morningstar - Mathew Hodge	1,700	1,700	1,700	1,700	1,500	1,390	1,421	1,453	
08/01/2021	Investec - Hunter Hillcoat	1,840	1,840	1,780	1,780	1,700	1,635	1,575	1,520	
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove	1,850	1,850	1,850	1,850	2,000	1,800	1,750	1,700	
15/01/2021	Emirates NBD - Edward Bell	1,800	1,750	1,700	1,700					
20/12/2020	Dept. Industry & Science - Gov. of Australia	1,800	1,710	1,660	1,610					
13/01/2021	Pezco Economics - Helcio Takeda	1,831	1,826	1,822	1,837	1,880	1,902	1,905	1,935	
15/01/2021	TD Securities - Bart Melek	1,925	1,975	2,025	2,050	2,038				
11/01/2021	UBS - Glyn Lawcock	1,975	2,175	2,150	2,100	2,100	2,000	1,625	1,500	1,500

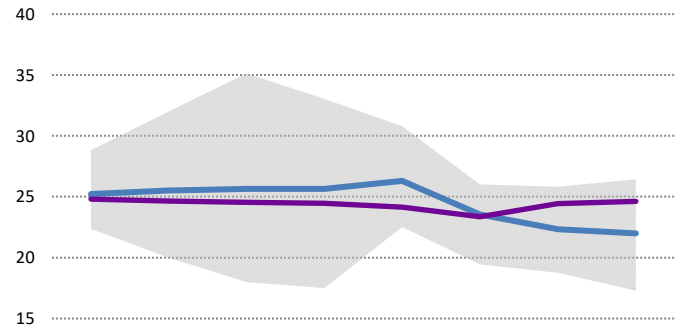
# Silver

## SILVER LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	<b>RBCCM - Mark Mihaljevic</b>	<b>99.52%</b>
2	Capital Economics - Caroline Bain	98.84%
3	ING - Wenyu Yao	98.33%
4	Pezco Economics - Helcio Takeda	98.02%
5	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	97.62%

## Apex Silver

Forecasts (\$/oz cash price)



Q1	Q2	Q3	Q4	2022	2023	2024	2025
2021	2021	2021	2021	2022	2023	2024	2025

Range highest-lowest

Consensus view (simple average)

Consensus view (weighted average)

## SILVER AVERAGES

	2021	2021	2021	2021	2022	2023	2024	2025	2026
	Q1	Q2	Q3	Q4					
Consensus view (weighted average)	24.82	24.65	24.55	24.45	24.14	23.36	24.42	24.62	
Consensus view (simple average)	25.22	25.52	25.65	25.63	26.32	23.55	22.33	21.99	17.00
Lowest	22.34	20.00	18.00	17.50	22.50	19.44	18.75	17.30	17.00
Highest	28.81	31.99	35.14	33.01	30.80	26.00	25.83	26.41	17.00
All forecasts spread (standard deviation / mean)	6.9%	11.9%	14.6%	14.3%	10.5%	8.5%	11.4%	14.5%	

## SILVER FORECASTS

Forecast date	Analyst/desk	2021	2021	2021	2021	2022	2023	2024	2025	2026
		Q1	Q2	Q3	Q4					
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	26.00	26.25	25.00	23.75	23.75	19.44	19.44		
15/01/2021	Citi - Max Layton	25.00	26.00	27.00	28.00	26.00	22.00			
03/01/2021	ING - Wenyu Yao	25.60								
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	23.19	23.44	23.69	23.94	24.06	24.06	24.06	24.06	
15/01/2021	RBCCM - Chris Louney	25.15	23.89	23.10	22.51	22.50	22.50	18.75	18.75	
12/01/2021	Capital Economics - Caroline Bain	26.68	26.75	26.25	25.50	23.90	21.25			
13/01/2021	StoneX - Rhona O'Connell	28.81	31.99	35.14	33.01	27.14	24.72	23.29	22.50	
15/01/2021	ED&F Man Capital Markets - Edward Meir	23.76	23.15	23.90	24.20					
11/01/2021	ABN Amro - Georgette Boele	26.20	26.50	27.50	28.50	30.80				
12/01/2021	Commerzbank - Daniel Briesemann	25.00	26.00	27.00	28.00	30.50				
15/01/2021	Morningstar - Mathew Hodge	22.34	22.34	22.34	22.34	24.71	25.27	25.83	26.41	
08/01/2021	Investec - Hunter Hillcoat	26.29	26.29	25.43	25.43	24.64	24.04	22.84	21.72	
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove	24.75	24.75	24.75	24.75	28.00	25.00	22.50	20.00	
15/01/2021	Emirates NBD - Edward Bell	23.00	20.00	18.00	17.50					
13/01/2021	Pezco Economics - Helcio Takeda	23.83	23.76	23.70	23.90	24.47	24.75	24.79	25.18	
15/01/2021	TD Securities - Bart Melek	25.00	25.75	27.00	29.00	27.94				
11/01/2021	UBS - Glyn Lawcock	28.20	31.40	30.60	29.80	30.00	26.00	19.48	17.30	17.00

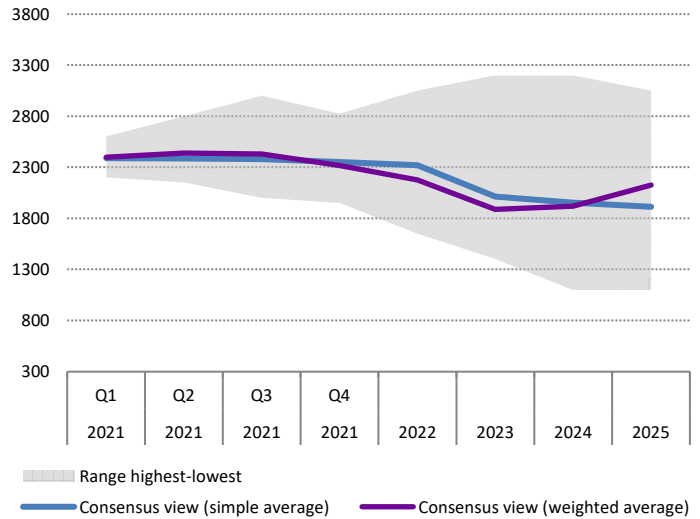
# Palladium

## PALLADIUM LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	98.45%
2	UBS - Glyn Lawcock	98.23%
3	ANZ - Daniel Hynes, Soni Kumari	97.93%
4	Citi - Max Layton	97.81%
4	ING - Wenyu Yao	97.81%

## Apex Palladium

Forecasts (\$/oz cash price)



## PALLADIUM AVERAGES

	2021	2021	2021	2021	2022	2023	2024	2025	2026
	Q1	Q2	Q3	Q4					
Consensus view (weighted average)	2,397	2,440	2,428	2,315	2,175	1,888	1,917	2,125	1,600
Consensus view (simple average)	2,390	2,386	2,378	2,349	2,320	2,013	1,954	1,915	1,600
Lowest	2,200	2,150	2,000	1,950	1,650	1,400	1,100	1,100	1,600
Highest	2,600	2,800	3,000	2,825	3,050	3,200	3,200	3,050	1,600
All forecasts spread (standard deviation / mean)	3.9%	7.0%	11.6%	13.0%	17.9%	28.2%	36.6%	38.8%	

## PALLADIUM FORECASTS

Forecast date	Analyst/desk	2021	2021	2021	2021	2022	2023	2024	2025	2026
		Q1	Q2	Q3	Q4					
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	2,200	2,150	2,000	1,950	1,950	1,600	1,400		
15/01/2021	Citi - Max Layton	2,600	2,800	3,000	2,800	2,000	1,500			
03/01/2021	ING - Wenyu Yao	2,395								
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	2,390	2,410	2,410	2,410	2,450	2,450	2,450	2,450	
15/01/2021	RBCCM - Josh Wolfson	2,500	2,250	2,250	2,250	1,650	1,400	1,100	1,100	
12/01/2021	Capital Economics - Caroline Bain	2,374	2,275	2,188	2,063	1,950	1,850			
13/01/2021	StoneX - Rhona O'Connell	2,455	2,463	2,619	2,772	3,050	3,200	3,200	3,050	
15/01/2021	ED&F Man Capital Markets - Edward Meir	2,316	2,380	2,250	2,150					
11/01/2021	ABN Amro - Georgette Boele	2,398	2,350	2,450	2,550	2,700				
12/01/2021	Commerzbank - Daniel Briesemann	2,400	2,450	2,500	2,500	2,575				
08/01/2021	Investec - Hunter Hillcoat	2,372	2,372	2,373	2,373	2,445	2,317	2,125	1,889	
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove	2,300	2,300	2,200	2,200	2,000	1,800	1,500	1,200	
15/01/2021	Emirates NBD - Edward Bell	2,300	2,200	2,000	1,950					
15/01/2021	TD Securities - Bart Melek	2,450	2,600	2,750	2,825	2,769				
11/01/2021	UBS - Glyn Lawcock	2,400	2,400	2,300	2,100	2,300	2,000	1,900	1,800	1,600

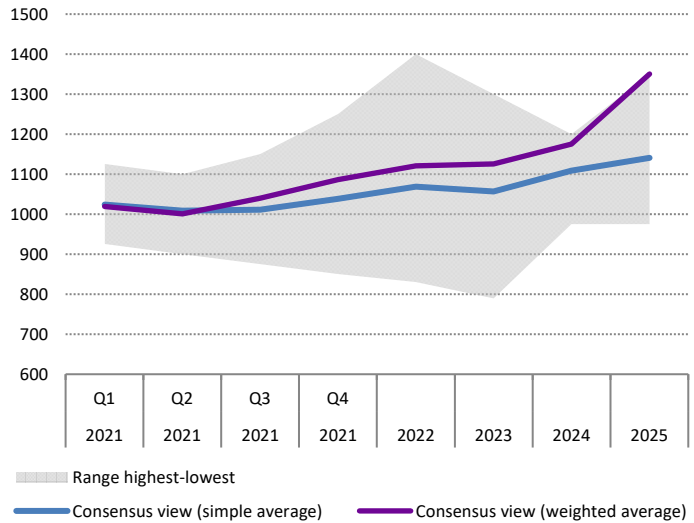
# Platinum

## PLATINUM LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	ING - Wenyu Yao	99.30%
2	ANZ - Daniel Hynes, Soni Kumari	98.56%
2	Commerzbank - Daniel Briesemann	98.56%
2	StoneX - Rhona O'Connell	98.56%
2	TD Securities - Bart Melek	98.56%

## Apex Platinum

Forecasts (\$/oz cash price)



## PLATINUM AVERAGES

	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022	2023	2024	2025	2026
Consensus view (weighted average)	1,019	1,001	1,039	1,086	1,120	1,125	1,175	1,350	
Consensus view (simple average)	1,024	1,009	1,011	1,038	1,069	1,056	1,108	1,141	1,250
Lowest	925	900	875	850	830	790	975	975	1,250
Highest	1,125	1,100	1,150	1,250	1,400	1,300	1,200	1,350	1,250
All forecasts spread (standard deviation / mean)	4.6%	6.0%	8.2%	10.5%	15.9%	13.8%	8.0%	12.7%	

## PLATINUM FORECASTS

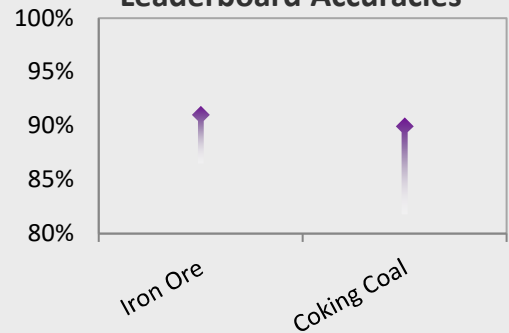
Forecast date	Analyst/desk	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022	2023	2024	2025	2026
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	1,000	975	1,020	1,050	1,050	1,150	1,150		
15/01/2021	Citi - Max Layton	1,000	1,050	1,050	1,100	1,200	1,300			
03/01/2021	ING - Wenyu Yao	1,125								
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	1,025	1,005	985	985	975	975	975	975	
15/01/2021	RBCCM - Josh Wolfson	1,050	1,000	1,000	1,000	850	950	1,100	1,100	
12/01/2021	Capital Economics - Caroline Bain	1,008	925	875	850	830	790			
13/01/2021	StoneX - Rhona O'Connell	995	928	937	1,020	1,050	1,100	1,200	1,350	
15/01/2021	ED&F Man Capital Markets - Edward Meir	1,015	1,050	950	990					
11/01/2021	ABN Amro - Georgette Boele	1,067	1,075	1,150	1,250	1,400				
12/01/2021	Commerzbank - Daniel Briesemann	1,050	1,100	1,150	1,200	1,325				
08/01/2021	Investec - Hunter Hillcoat	1,067	1,067	1,068	1,068	1,088	1,112	1,142	1,171	
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove	1,050	1,050	1,050	1,050	1,000	1,000	1,000	1,000	
15/01/2021	Emirates NBD - Edward Bell	1,000	900	900	850					
15/01/2021	TD Securities - Bart Melek	925	1,000	1,050	1,075	1,056				
11/01/2021	UBS - Glyn Lawcock	980	1,000	970	1,050	1,000	1,130	1,190	1,250	1,250

# Steel Raw Materials Leaderboard Q4 2020

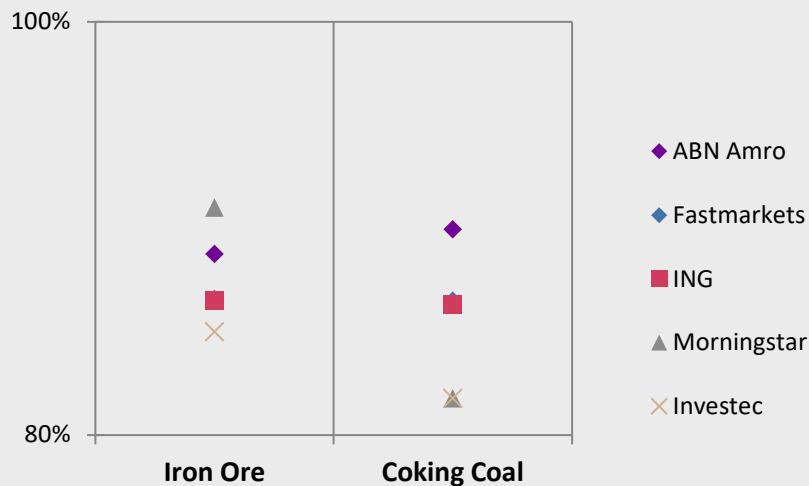
Rank Analyst

Rank	Analyst	Accuracy
1	ABN Amro - Casper Burgering	89.37%
2	Fastmarkets	86.55%
3	ING - Wenyu Yao	86.42%
4	Morningstar - Mathew Hodge	86.40%
5	Investec - Hunter Hillcoat	83.39%

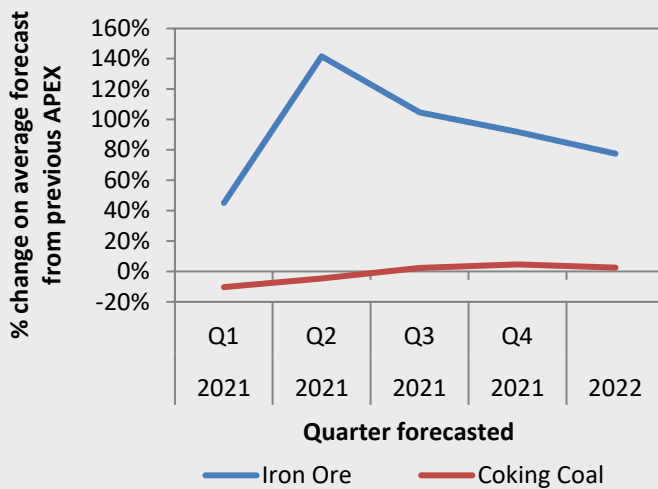
## Individual Raw Materials Leaderboard Accuracies



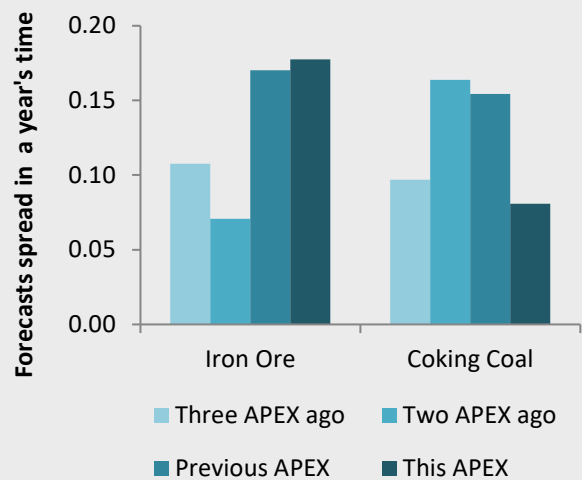
## OVERALL Raw Materials TOP 5 ANALYSTS



## CHANGE IN FORECASTS FROM PREVIOUS APEXs



This graph shows how forecasts changed in % from the previous APEX for the X-axis dates. Positive % means participants are more bullish than on previous APEX.



This graph shows the level of consensus. Lower values = higher consensus.



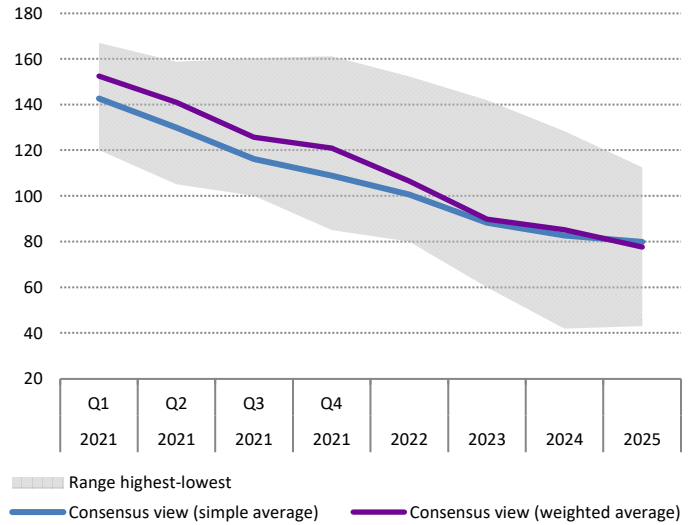
# Iron ore

## IRON ORE LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	Morningstar - Mathew Hodge	91.03%
2	ABN Amro - Casper Burgering	88.77%
3	Pezco Economics - Helcio Takeda	86.89%
4	Fastmarkets	86.59%
5	Capital Economics - Caroline Bain	86.51%

## Apex Iron Ore

Forecasts (\$/tonne cash price)



## IRON ORE AVERAGES

	2021	2021	2021	2021	2022	2023	2024	2025	2026
	Q1	Q2	Q3	Q4					
Consensus view (weighted average)	152	141	126	121	106	90	85	78	
Consensus view (simple average)	143	130	116	109	101	88	83	80	70
Lowest	120	105	100	85	80	60	42	43	70
Highest	167	159	160	161	152	142	128	112	70
All forecasts spread (standard deviation / mean)	10.6%	12.0%	14.6%	17.7%	19.0%	26.3%	29.3%	26.0%	

## IRON ORE FORECASTS

Forecast date	Analyst/desk	2021	2021	2021	2021	2022	2023	2024	2025	2026
		Q1	Q2	Q3	Q4					
15/01/2021	Fastmarkets	167.0								
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	160.0	130.0	100.0	85.0	85.0	65.0	65.0		
15/01/2021	Citi - Max Layton	130.0	120.0	110.0	100.0	90.0	80.0			
03/01/2021	ING - Wenyu Yao	154.0								
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	155.0	145.0	125.0	125.0	115.0	105.0	95.0	85.0	
15/01/2021	RBCCM - Tyler Broda	140.0	135.0	115.0	100.0	95.0	75.0	65.0	65.0	
12/01/2021	Capital Economics - Caroline Bain	140.0	115.0	107.5	102.5	82.5	67.5			
13/01/2021	ABN Amro - Casper Burgering	155.0	150.0	135.0	120.0	111.0				
12/01/2021	Commerzbank - Daniel Briesemann	125.0	120.0	110.0	100.0	94.0				
15/01/2021	EIU - Rajvinder Kaur	120.0	115.0	100.0	95.0	80.3	100.0	95.0	98.0	
15/01/2021	Morningstar - Mathew Hodge	140.0	140.0	100.0	100.0	80.0	60.0	42.0	43.0	
08/01/2021	Investec - Hunter Hillcoat	140.0	140.0	130.0	130.0	110.0	91.5	83.0	81.0	
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove	150.0	130.0	120.0	100.0	100.0	90.0	85.0	80.0	
13/01/2021	Pezco Economics - Helcio Takeda	160.3	158.7	160.3	161.1	152.3	141.9	128.3	112.5	
15/01/2021	TD Securities - Bart Melek	125.0	115.0	105.0	100.0	104.0				
11/01/2021	UBS - Glyn Lawcock	122.5	105.0	107.5	105.0	110.0	95.0	85.0	75.0	70.0

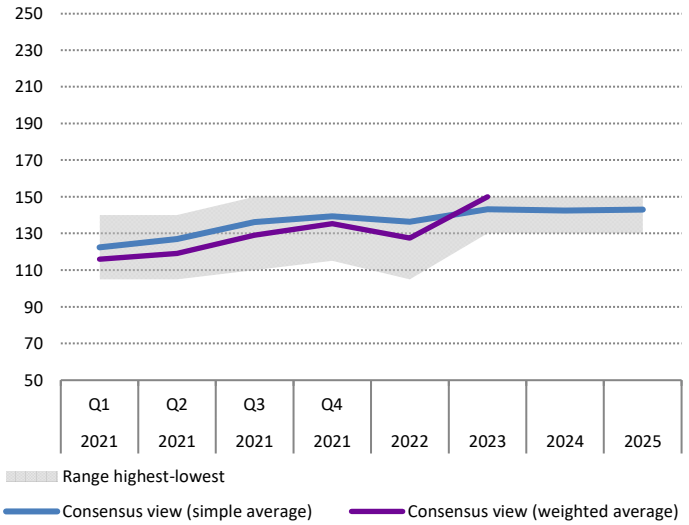
# Coking coal

## COKING COAL LEADERBOARD Q4 2020

Rank	Analyst	Accuracy
1	ABN Amro - Casper Burgering	89.97%
2	Dept. Industry & Science - Gov. of Australia	89.06%
3	Fastmarkets	86.51%
4	ING - Wenyu Yao	86.33%
5	Citi - Max Layton	81.78%

## Apex Coking coal

Forecasts (\$/tonne cash price)



## COKING COAL AVERAGES

	2021	2021	2021	2021	2022	2023	2024	2025	2026
	Q1	Q2	Q3	Q4					
Consensus view (weighted average)	116	119	129	135	128	150			
Consensus view (simple average)	122	127	136	139	136	143	143	143	150
Lowest	105	105	110	115	105	130	130	130	150
Highest	140	140	150	150	150	150	150	150	150
All forecasts spread (standard deviation / mean)	9.3%	9.1%	8.9%	8.1%	10.7%	4.8%	6.2%	6.8%	

## COKING COAL FORECASTS

Forecast date	Analyst/desk	2021	2021	2021	2021	2022	2023	2024	2025	2026
		Q1	Q2	Q3	Q4					
15/01/2021	Fastmarkets	122.0								
15/01/2021	ANZ - Daniel Hynes, Soni Kumari	115.0	120.0	130.0	140.0	140.0	140.0	140.0		
15/01/2021	Citi - Max Layton	110.0	120.0	140.0	150.0	150.0	150.0			
12/01/2021	SP Angel - J. Meyer, S. Raevskiy, S. Beardsmore	125.0	135.0	145.0	145.0	130.0	130.0	130.0	130.0	
15/01/2021	RBCCM - Sam Crittenden	140.0	140.0	140.0	140.0	150.0	150.0	150.0	150.0	
13/01/2021	ABN Amro - Casper Burgering	105.0	105.0	110.0	115.0	105.0				
08/01/2021	Investec - Hunter Hillcoat	120.0	120.0	128.0	128.0	136.0	142.5	135.0	135.0	
15/01/2021	Jefferies - Chris LaFemina, Patricia Hove	140.0	140.0	150.0	150.0	145.0	145.0	150.0	150.0	
20/12/2020	Dept. Industry & Science - Gov. of Australia	127.0	132.0	137.0	141.0					
11/01/2021	UBS - Glyn Lawcock	120.0	130.0	145.0	145.0	135.0	145.0	150.0	150.0	150.0

