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Summer Playlist 2023 | Episode 4

Samantha Dart, Head of Natural Gas Research, Goldman Sachs

This week on our Summer Playlist, we welcome Samantha Dart back into the SmarterMarkets™ studio. Samantha is Head of Natural Gas Research at Goldman Sachs. SmarterMarkets™ host David Greely sits down with Samantha to talk about the state of natural gas markets in the aftermath of last year's European energy crisis and to discuss where the industrial demand for natural gas in Europe has gone.

Samantha Dart (00s):

Now the good news for Europe is that there is a new supply wave of LNG coming from 2025. The US has a lot of projects under construction. Qatar has a lot of expansions under construction, so there is plenty of supply in the horizon, and we expect from 2025 this is really going to turn the market and take global LNG balances into an oversupply, really for the second half of the decade.

Announcer (28s):

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David Greely (01m 09s):

Welcome back to our Smarter Markets summer playlist 2023, where we are sitting down with our special guests midway through the year to talk about where we are and where we might be and need to be heading next. It's our beach reading and a podcast. I'm Dave Greely, Chief Economist at Abaxx Technologies. Our guest today is Samantha Dart, Head of Natural Gas Research at Goldman Sachs. We'll be discussing the state of natural gas markets in the aftermath of last year's European energy crisis and where has all the industrial demand for natural gas in Europe gone well. Hello Sam. Welcome back to Smarter Markets.

Samantha Dart (01m 44s):

Thanks for having me back.

David Greely (01m 46s):

Absolutely. I'm always glad to have the opportunity to catch up with you and I was just looking back at the calendar and realized you were here pretty much one year ago during the European energy crisis, and we were talking about the potential adjustments that would be needed to balance natural gas and supply and demand in Europe and fortunately, a very warm winter was a big part of that adjustment, but there were many other important adjustments that took place as well and I wanted to talk with you today about how the European natural gas market has been changed by the events of the past year and I wanted to start with the demand side of the market. You know, those alarmingly high prices did take a lot of demand outta the market, particularly in the industrial sector and although European natural gas prices have declined to more or less pre-crisis levels, I think the question always remains what's been the long-term impact of that price spike on the industrial natural gas demand in Europe. So let's start there, Sam, how would you characterize any lingering impact of last year's price spike on natural gas demand in Europe and how much industrial demand is still lost?

Samantha Dart (02m 58s):

Yeah, sure and you know, I actually want to start touching on the residential side because you know, the interesting thing about this winter is that even though the beginning of it was quite warm, like if you go from early October through mid-November, that period was a two standard deviation, warmer than average period. But by the time you got to end of March, it was nearly normalized. So it started very, very mild. It didn't end that way and then when we look at winter and we look at what was the primary driver of keeping all that gas in storage, because we came outta winter with storage in Europe, more than 50% full, right. It was the highest ever. So the

primary driver of that was actually conservation efforts by households. So this is weather adjusted. So we take like take off the weather from the equation here.

Samantha Dart (03m 57s):

How much were people saving, how did they change their behavior and it goes to your question as well because out of those savings, which equated to about 15% of normal, about three to five percentage points of that can be attributed to heat pump installation. So that's not coming back, but it also highlights, hmm, that means there's still about 10% of heating demand that can swing there, right. So just wanted to, to start emphasizing that because the two main drivers of those conservation efforts are no longer there. Number one, prices, right as you pointed out, we went into last winter with very expensive natural gas, we're going into the next winter with much cheaper natural gas and the second driver was actually sheer panic. Governments were out in the news saying everybody needs to save and they did and now people were more complacent. There is much less concern.

Samantha Dart (04m 59s):

In fact, Europe has had to deal with the possibility that inventories would hit congestion, right, so it's the opposite type of incentives in place. So I'm actually very curious to see at the margin how much conservation efforts we might lose and this will be I think, pretty key for the winter to come. Now on the industrial demand side, you're right. I mean we had this tremendous demand loss last year activity plummeted because energy costs were incredibly high okay, but they aren't anymore and demand still hasn't done anything. So to give you a sense of the size of the decline, industrial demand trough at about 30% down relative to normal, still today we're about 27% down from normal. So it, it's like nothing prices are down and nothing. So one thing we like to do is to literally talk to these guys, talk to industrial users of gas and power, and we can ask them directly, what is the problem, why aren't you changing your behavior and it's super interesting because our takeaway is that what started as a gas price problem really has become a macro problem because what they tell us is not that they have a problem with the gas price, they have a problem with demand. Demand downstream from them is just not high enough and they don't want to front run it. So yes, they lower their utilization rates and they're waiting for that downstream to give some support before they normalize their activity levels.

David Greely (06m 39s):

That's really interesting. So the guys you're talking to would tend to be the, the primary producers, I imagine. So the people making the plastics, the glass, the metals.

Samantha Dart (06m 49s):

That's exactly right. They sit at the sort of top end of the supply chain and whatever they produce go into so many other streams of goods. Like, just to give an example, the largest industrial users of industrial user of gas is the chemical sector and chemicals go into 95% of all produced goods in the economy. So it really touches everything. And, and what we noticed was that really we had a macro problem, we had an inventory problem. When we look at the inventory of finished goods across Europe, it's incredibly high still and then when you look at the relationship between that and industrial activity over time, like you can go back decades, it's a very strong negative correlation. So when inventories are high, simply put, like the message that's sending is that you don't need more industrial production, so just stop whatever you're doing until we destock, right. So this is what the sector is waiting for right now.

David Greely (07m 53s):

And so I saw you wrote a really interesting report on that, on where the industrial natural gas demand has gone and I guess it's really, as you said, that's the downstream of the supply chain, that, that the finished goods, that just isn't the demand there, are there reasons, was it strictly the price that the downstream producers couldn't afford the raw materials back then, the, the chemicals, the plastics, the metal and glass to make the finished goods or did the high prices you think, you know, hurt the end consumer and that's what choked demand off?

Samantha Dart (08m 25s):

Yeah. So we looked at this problem almost like in, in two steps in the first step. We were trying to kind of separate the gas price impact on activity from this inventory cycle, impact on activity because the inventory cycle started to turn even before the gas crisis. Like if we go back to say summer 21, that was when you look across consumer major purchases, they started to decline. If you remember, remember that was the beginning of that goods to services rotation post COVID, right. In COVID we all bought goods. Once we could get out there, we turned to services and let goods aside. So you started that rotation around summer 21. That was the same time when supply chain issues started to look better. So at the same time that purchases were going down, production was going up and that started the buildup of finished goods, inventories.

Samantha Dart (09m 25s):

And then to your point, when you have super high inflation because energy costs are through the roof, that doesn't help with purchases of anything, right. So consumer spending was hit very hard and it still hit, like when we look across Europe, our economists, they do expect that because inflation is slowly coming down and wages still going up. At some point your real disposable income is going to look better, but just the levels are not there yet, right. So this is a problem, this inventory cycle problem, it really started sort of in the middle of 21 and it build up until now. So you need to reverse it. So, so the first step was, okay, let's separate gas pricing pacts from the inventory cycle impact and what we find is that if there was no inventory cycle issue, this declining in gas prices would've taken industrial demand for gas up 8% year in year.

Samantha Dart (10m 21s):

By now we're not there. We're not there because the inventory cycle is dragging it down significantly and then was the second step, we kind of went into detail behind this inventory cycle, okay. If that's the big problem here, what solves that, right, so we found out that that's driven by three primary drivers. Like if you look at what's holding it back the most, it's high interest rates. High interest rates. They make it more expensive for consumers to finance their purchases. They make it expensive for industrials to finance inventories and to invest, right, so it's holding everyone back, consumers and industrials. In addition to that, you also see the impact of consumer purchases on its own. So it still shows a significant, in addition to the impact of interest rates and on top of that exports to China was the third driver there because the more you're able to export out of Europe towards China, then the more you can manage your inventories because that got hit this year as well because China itself was in an oversupply of goods, especially during Q2 it was like the trifecta and everything went wrong for European industrials.

David Greely (11m 37s):

It's so fascinating this interplay between the micro of the natural gas market, the broader macro backdrop, and then all these cycles that are coming together, as you said, the COVID goods to services, back to goods cycle, eventually the China cycle of China being slowed down relative to the rest of the world. How do you see this playing out over the remainder of the year? I mean if it's, if it's an inventory cycle, I guess we, we expect it to turn at some point and that demand to come back, but do you have a sense of what's gonna need to happen for that inventory cycle to play out over say, a 6, 12 month timeframe or will it take longer?

Samantha Dart (12m 17s):

Yeah, so our view is that these three main drivers, they need to turn for this inventory cycle to resolve, right. So the first thing that we expect to change is exports to China. The reason is we had China built itself into an oversupply of goods in the beginning of Q2. I mean after the reopening it's much quicker to just restart a factory and start producing than to support your own domestic consumption. So your production of goods increased a lot faster than demand and China spent the whole of Q2, if you remember, cutting back on their own manufacturing, right? In the same way that they were doing that they were cutting back on imports from Europe as well. They had an oversupply of goods and now only now, I mean we are now what in early August, right we are starting to see the first signs of stabilization in China, domestic manufacturing.

Samantha Dart (13m 16s):

And the first signs that their destocking process has also made ways. So the expectations we have is that this will start to turn the corner sort of late Q3 into Q4. That's the first turn of those drivers of the inventory cycle in Europe. Now the second one that we think will play out is consumer purchases. Again, because of this improvement in real disposable income, that is gradual, right, so it builds up over time, given enough time that gains enough scale to really start to change sentiment for industrials. A really interesting thing that we noticed was by comparing industrial confidence, we consumer confidence, when you look at those two series across the decades, they usually go together, they go up together, they go down together. But during this crisis, we now see the opposite. Industrial confidence is still getting worse and worse and worse, but consumer confidence is less negative and less negative.

Samantha Dart (14m 23s):

It's still negative, don't get me wrong it, but it's less and less and less. So we're starting to see an improvement in consumer confidence that we think is driven by this higher disposable income, but the scale of it is just not elevated enough to change anyone's sentiment around it. So just last week I was talking again with industrials that use gas and power and asking them, do you see anything yet anything in the horizon yet and they say, no, nothing, it looks as bad as ever. So they can't see it yet. But that expectation from consumers is starting to show signs of improvement. Now we think this is still going to take another six months or so to play out, to gain enough scale to really start to show. So it's nothing immediate. Now the third and most important driver interest rates, we don't

expect those to go down in Europe until the second half of next year. So I think it's really a matter of differentiating here between the industrial outlook improving versus normalizing. We think it can start to improve from this winter, but we don't expect it to normalize for another year.

David Greely (15m 38s):

Well, so even though it's a cycle, the inventory cycle and the need to destock finished goods before we start getting demand upstream is gonna take some time to out. And I wanted to ask you, you brought up earlier in the context of residential demand that many people installed heat pumps and so is there, is there a similar issue in addition to the inventory cycle on the industrial side. Have there been some structural changes in European industry that might make some of that demand loss permanent?

Samantha Dart (16m 10s):

Yes. So one way that we can see that is literally by going sector by sector and asking them, okay, out of your curtailed activity level, what do you see as a permanent closure versus a temporary closure and interestingly what we hear back from these sectors is that what they see as permanent closures today represents only 2% of their activity levels. So that's, that's small, right. I mean, compared to again, industrial activity, industrial demand for guests down 27% from normal, only 2% coming from these permanent closures. Now the caveat is this, this is what they see as permanent today. But the longer demand takes to normalize, the more and more of those temporary closures will become permanent. They will be more and more willing to just say, you know what, let's just leave it the way it is. Let's leave it down because there isn't enough demand to support it, right. So this permanent component of industrial demand losses, we think growth over time. In fact, when we look at our expectation of industrial demand for guests even a couple years out, we really see it well below pre-crisis levels about 15% below. So it's not a full normalization that we expect. Some losses are just there to stay.

David Greely (17m 36s):

It sounds like about half of the loss might end up being permanent even though it's not now by the time, because the inventory cycle could take so long to normalize. That's fascinating and but of course the 15% that comes back, it'll need supply to help meet it or else we'll be back to high prices again and I'm curious, you know, switching to the supply side of the market, do you see longer term changes in how Europe is bringing in the supply to meet demand for natural gas as it returns to the market?

Samantha Dart (18m 06s):

Yeah, Europe doesn't have a lot of options, right as it lost Russian supply. If you look at the local suppliers, you look at the UK, you look at Norway, you look at Netherlands, their production is either flat or declining. So nothing to come there. It's only up to LNG at this point. LNG was a big part of the supply solution last year. It has been this year and yeah, we expect it to continue to be an important source of supply for Europe going forward.

David Greely (18m 41s):

And I'm curious, last time you were here, you talked about a bit of the European attitude towards LNG at the time being, well maybe that's something for the next five years or maybe the next 10 years, but yeah, we don't want to commit to that. I'm curious if there's been a shift in that attitude towards natural gas and LNG in Europe and is this being reflected in you know, how Europe's trying to secure supplies through its own long-term contracts and supply agreements?

Samantha Dart (19m 09s):

Yeah, not really a big change. We did see a few more long-term contracts being signed between European parties and LNG suppliers, but again, when we look at the list of contracts that were signed since the start of the Ukraine War, Europe appears as a distant third place in, in the ranking of the buyers portfolio. Players are number one, Asian buyers are number two, and Europe is number three. So I think if we go back and just think of their incentive to sign a long-term agreement, it's still not there. If, if we, if we look at it from a European perspective, so an aggregate region and its balance of gas, then the incentive is there. You want to secure supply going forward. But for each individual company, what you're thinking about is, well, regulations might force me to turn away from natural gas in 10 or 15 years. So who am I to sign a 15 or 20 year agreement for long-term LNG, so they don't have the right incentives to sign those contracts as individual companies, and as a result they don't.

David Greely (20m 15s):

And it creates an interesting dissonance, right, because Europe has been building the, the infrastructure, the regasification facilities to bring in more LNG, but as you said, the individual companies don't have the, the incentives to secure long-term contracts. I guess also

the optics of that might not be very good for them if they're signing a, you know, 30 year, 20 year LNG supply agreement. Maybe they don't want to have to explain that in the current political environment.

Samantha Dart (20m 43s):

Yeah and sorry, just to compliment there. I think you're right and it's important that they are building the import capacity part of the equation because volumetrically, it almost doesn't matter that they didn't sign the, the import agreements. Because if they need it, they will get it. It's just a matter of what price they will pay for it, right. So the fact that they are not signing long-term agreements doesn't mean Europe won't get LNG when it needs it. It just means that it'll pay whatever the spot market is charging for at that time. Now the good news for Europe is that there is a new supply wave of LNG coming from 2025. The US has a lot of projects under construction. Qatar has a lot of expansions under construction. So there is plenty of supply in the horizon and we expect that from 2025 this is really going to turn the market and take global LNG balances into an oversupply really for the second half of the decade.

David Greely (21m 43s):

It sounds like a very interesting environment for pushing more of the LNG trade away from long-term towards more shorter term and spot type trading. I wanted to ask you though, you brought up, while the crisis was centered in Europe, it had impacts globally and while LNG came to the rescue in Europe last year, it wasn't that LNG in many cases was diverted from others and it spread the pain of the European energy crisis around the world and you know, while Europe might be comfortable that it can outbid others for gas when it needs it in the future, it seems like many others have taken the approach of let's secure supply or move to alternatives because we don't want to get caught again and I was curious, you know, how are you seeing the rest of the world's approach to the global natural gas market being changed by the European energy crisis?

Samantha Dart (22m 34s):

Most of it hasn't changed. I would say the one exception is Pakistan. Pakistan was one of the countries that had to give up LNG last summer because it was too expensive and they had to go through rolling blackouts at the time for the lack of energy availability and as a result the government did come out months later saying, you know what, or long-term growth strategy is not gonna be based on natural gas anymore. We're gonna go back to coal. It's cheaper, it's more available. So that's what made sense for them. We have not really seen similar shifts in strategy from many other places. In fact, I think the line of, let's continue to move away from coal and towards natural gas that has continued across Asia and actually I think it still has a lot of scale to gain there this coal to gas substitution that we have seen in scale in Europe, in the us in Asia. I think it's still very incipient and I think there is a lot to go there, even if Pakistan is out.

Samantha Dart (23m 39s):

And I wanted to ask you, you know, if we kind of take a step back from the near term, I'm curious, you know, when you have a big event like the European energy crisis, it always makes you want to like say, okay, how have things changed relative to the way we were used to thinking about it beforehand you know, I think before the, the crisis it was, you know, simple shorthand was Asia's the demand pull Europe's the sink, you know, but kind of beyond those simple things, I was just curious how the events of the past year and how things have responded since, how have they changed how you think about how the LNG market and the global natural gas market will operate going forward and have the dynamics shifted at all?

Samantha Dart (24m 20s):

Yeah, there, there are a few things, right. I think the first one you already touched on, we very much used to think of LNG demand as, okay Asia will take what it needs and Europe is the dumping ground for the rest and now you know, we have to take a step further and think, well, but is Europe going to be short. Because if it is, then they will price for it, which means then your price sensitive buyers in Asia will give it up, right, so there is that extra step you need to think of when considering the balances for it this year or five or 10 years from now. The second change I would say has to do with long-term energy costs for Europe. If you look at what was the average price for European natural gas before this crisis, it was about like a little over €20, a megawatt hour.

Samantha Dart (25m 11s):

When we think about this long-term price going forward now it needs to basically pay for the build out of additional LNG capacity. Since LNG is going to be your marginal supply going forward, you gotta pay for it, right. So that marginal cost is a little bit higher, not a lot, but instead of 20 it's probably closer to €30 euros a megawatt hours. So when I think of that long term anchor price, it's a little bit higher than previously. And last, but definitely not least, we have to talk about the US here because the US is turning into a massive

supplier of LNG. It represented more than 20% of LNG supplies this year and what this means for the US is that its own natural gas markets are very much subject of the global LNG market now.

Samantha Dart (26m 04s):

So just to give an example, in any given year, and by the way we discussed this possibility this year for Europe, if European storage is too full threatening to hit congestion, there is a risk that European prices collapse as a result and end up closing the ARB behind us LNG exports. So if us LNG exports have no incentive to flow and they end up staying in the US that completely floods the US gas market. So this is now a risk that US market participants are going to have to deal with going forward. So when you build export capacity, that's just capacity. It doesn't guarantee that it'll flow right.

David Greely (26m 48s):

And for us minded folks, I think you said €30 euros a megawatt hour is kind of like the incentive price to, to build out the LNG facilities in Europe. Where does that translate to in a dollar per MMB TU?

Samantha Dart (27m 02s):

Yes sure. So the hack is roughly, okay, it's not precise, but roughly divided by by three. So your €30 megawatt hour is almost \$10 an MMBTU.

David Greely (27m 13s):

So that's a big deal for a US consumer. If you think that, you know, the gas that you're getting for a few bucks, Europe might be willing to pay ten four over the long term with a lot of volatility.

Samantha Dart (27m 22s):

Yeah. But that's also because of how the contracts are structured, right. So when you are paying for that LNG to show, you have to pay not just for the US natural gas price, you have to pay for that. Plus you have to pay for the cost of liquefaction. You have to pay for the rate of return that the Lake Affection facilities are getting from doing that. You have to pay for your shipping costs, you have to pay for your regas costs. So that's why when you arrive in Europe, that all in cost becomes something a lot closer to nine or \$10, even though you may be assuming Harry Hub at around \$4.

David Greely (28m 00s):

It's gonna be an interesting market going forward as it always is. Thanks for bringing us up to speed and helping us understand how to think about it better. As always, thank you so much for your time with us and sharing your insights and expertise. But I want to ask you one last question on a different topic before you go. As you know, we think of our smarter market summer playlist as our beach reading in a podcast and in that spirit, I'm asking each one of our guests what's on their personal beach reading list this summer. So what are you reading this summer, Sam?

Samantha Dart (28m 32s):

So I was watching the silo series on Apple TV and the first season is over and I can't wait. So I got the book Trilogy. I think it's Hugh Howie who wrote it, and I can't stop. So that's what I'm reading this summer and I'm loving it.

David Greely (28m 50s):

That's fantastic. Then we'll have to check in with you next year to see if the next season was disappointing relative to the books or not. Sounds good. Well, thanks so much, Sam really appreciate you coming by.

Samantha Dart (29m 02s):

Oh, it's my pleasure. Anytime.

David Greely (29m 06s):

Thanks again to Samantha Dart, Head of Natural Gas Research at Goldman Sachs. We hope you enjoyed the episode. Join us next week as we continue our summer playlist 2023 with our next special guest. We hope you'll join us.

Announcer (29m 20s):

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Announcer (30m 09s):

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