CORPORATE PARTICIPANTS

Beth Howe
Vice President & Head of Investor Relations, HP, Inc.

Dion J. Weisler
President, Chief Executive Officer & Director, HP, Inc.

Steve Fieler
Chief Financial Officer

MANAGEMENT DISCUSSION SECTION

Operator: Good day, everyone, and welcome to the First Quarter 2019 HP, Inc. Earnings Conference Call. My name is William, and I will be your conference moderator for today's call. At this time, all participants will be in listen-only mode. We will be facilitating a question-and-answer session towards the end of the conference. [Operator Instructions] As a reminder, this conference call is being recorded for replay purposes.

And I would now like to turn the call over to Beth Howe, Head of Investor Relations. Please go ahead.

Beth Howe
Vice President & Head of Investor Relations, HP, Inc.

Good afternoon. I'm Beth Howe, Head of Investor Relations for HP, Inc. And I’d like to welcome you to the fiscal 2019 first quarter earnings conference call with Dion Weisler, HP's President and Chief Executive Officer; and Steve Fieler, HP's Chief Financial Officer.

Before handing the call over to Dion, let me remind you that this call is being webcast. A replay of the webcast will be made available on our website shortly after the call for approximately one year. We posted the earnings release and accompanying slide presentation on our Investor Relations webpage at www.hp.com. As always, elements of this presentation are forward-looking and are based on our best view of the world and our businesses as we see them today.

For more detailed information, please see disclaimers in the earnings materials relating to forward-looking statements that involve risks, uncertainties and assumptions. For a discussion of some of these risks, uncertainties and assumptions, please refer to HP’s SEC reports including our most recent Form 10-K. HP assumes no obligation and does not intend to update any such forward-looking statements.

We also note that the financial information discussed on this call reflects estimates based on information available now and could differ materially from the amounts ultimately reported in HP's Form 10-Q for the fiscal quarter ended January 31, 2019 and HP's other SEC filings.

During this webcast, unless otherwise specifically noted, all comparisons are year-over-year comparisons with the corresponding year ago period. For financial information that has been expressed on a non-GAAP basis, we've included reconciliations to the comparable GAAP information. Please refer to the tables and slide presentation accompanying today's earnings release for those reconciliations.

And now I'll turn it over to Dion.
Thanks, Beth. Good afternoon and thank you for joining us. In Q1, we once again delivered top and bottom-line growth. We continue to demonstrate our ability to deliver on our EPS, generate free cash flow and we remain focused on positioning the company for long-term sustainable growth.

While this quarter had many areas of strength and progress against our plan, there was an unexpected challenge in Supplies and we have more work to do there.

First, let me cover the highlights for the quarter and then talk about the business more broadly. In Q1, we delivered:

- Revenue of $14.7 billion, up 1% or up 2% in constant currency;
- Non-GAAP earnings per share of $0.52, an increase of 8% and in-line with our outlook;
- And we generated strong free cash flow of approximately $700 million, returning almost $1 billion to shareholders in the form of stock repurchases and dividends.

Our results demonstrate the continued vitality of our innovation across the portfolio as well as our ability to execute and adapt in a tough environment. Our strategy remains consistent, and a key part of that strategy is our focus on continuing to refine our business model to match changing customer needs and market conditions.

This is one of the core strengths of our organization. We have a proven track record of leveraging change to create opportunity.

Let's go through the performance of each of our businesses, starting with Personal Systems.

Our Personal Systems team continues to perform at a high level, driven by a relentless focus on execution and profitable growth. In Q1, Personal Systems revenue grew 2% and delivered strong 4.2% operating margins. We are improving our product mix and managing our costs.

As expected, the first half headwinds we previously shared with you are playing out, and we are navigating them well.

We are also strengthening our position in strategic segments where we see pockets of growth and delivering differentiated and premium hardware services and solutions.

In January, we kicked off CES with a bold lineup of innovative "firsts" for modern lifestyles, changing workplaces, and immersive gaming.

For consumers, we introduced the new Spectre x360, the world's first 15-inch laptop with an AMOLED display for exceptional clarity and color. We announced the world's first Quantum Dot on glass display, providing movie theater quality visuals at home. And we showcased the world's first AMD-based Chromebook, bringing the power of cloud applications to a broader range of customers.

We also introduced solutions designed to power the workforce, workplace and workstyles of the future. We launched the third generation of HP Sure View technology, further protecting users against visual hacking. And with more than 70% of U.S. workplaces using open-concept designs, we unveiled the world's first display and first All-in-One with an integrated privacy screen -- giving workers confidence in their security and privacy.

We also expanded our gaming portfolio with innovation that creates even more immersive experiences to take
gaming to new heights. We debuted the world’s first 65-inch gaming display with integrated soundbar and launched the new OMEN 15 featuring HP’s fastest display refresh rate - 240 hertz - to help gamers stay ahead of the competition.

We also remained focused on driving innovation and growth in key vertical segments. This quarter we introduced a variety of education-centric Chromebooks - simple, secure, and shareable devices that enable schools to empower the next generation of innovators and leaders. And in Retail, we launched a new point-of-sale solution, including a strategic collaboration with PayPal, specifically designed for small and medium-sized retailers and hospitality owners.

In Print, while we have made progress against our strategy- growing hardware revenue, share and operating profit dollars, our Supplies performance did not meet our expectations this quarter, so this is what I want to cover first.

Supplies revenue was weaker than anticipated, particularly in EMEA, where Supplies declined 9%.

As you know, we look at our Supplies business in terms of our four-box model: installed base, usage, share and price. The two factors that varied from our plan were a decline in share and, to a lesser extent, pricing. We saw this most significantly in our commercial channels, which is having the larger impact on office Supplies.

There are several factors contributing to the change in customer purchasing behavior.

More commercial customers are purchasing supplies online, and while we have leading share online, it’s at a lower percentage than our share with traditional commercial resellers and in-store retailers.

In addition, as the macro uncertainty has increased, we have seen further price sensitivity among customers, pressuring both our share and our supplies pricing.

The combination of these two factors negatively impacted HP’s Supplies share. It also changes our assumptions in the four-box model for the remainder of the year.

As a result, we no longer expect Supplies to be flat to slightly up in FY19.

On a related note, we continued to maintain the levels of channel inventory under our Tier 1 ceiling and monitor Tier 2 inventory where we had some visibility. However, we continued to fulfill orders, likely over multiple quarters, based on our original share assumptions, which we now believe were overestimated. This resulted in additional HP supplies in the ecosystem, including the unmonitored, downstream portion.

In summary, this is what led to the challenges in Supplies. Now, let me tell you what we’re going to do about it, and Steve will provide additional details.

- We’re taking actions to lower the level of supplies inventory in the market to be consistent with our new share assumptions.
- And, we are implementing additional share improvement plans, including online programs, targeted marketing and brand protection to promote the value of HP original supplies in terms of quality, sustainability and environmental impact.

The team’s agility and ability to respond to challenges gives me confidence in how we will manage through this environment. We are taking action and, importantly, we are maintaining our non-GAAP EPS and free cash flow outlook for the full year.

As Enrique talked about at our Securities Analyst Meeting, our markets are changing, and we must keep evolving
our business and business models. This is why we are focused on accelerating our strategy toward contractual sales which we expect will have two benefits: diversifying our profit pool through services and securing a higher share of the supplies of these units.

Both Instant Ink and Managed Print Services are examples of these models. The Instant Ink subscriber base continues to have impressive growth. We have now rolled out the program in 18 countries and continue to see strong adoption rates. In Managed Print Services, our Machines in Field number is growing double digits and we are scaling our MPS coverage with expanded opportunities for our premier channel partners in both the A3 and A4 categories.

We are also evolving our business to include products that generate a larger portion of their lifetime profitability at the time of purchase. This includes not only products like Sprocket but also our HP SmartTank and HP InkTank printers that can print up to 8,000 color pages before more ink is required. These printers not only deliver strong total cost of ownership, they deliver the quality and durability that customers expect from HP original ink.

Our Print innovation continues to help define this business.

In Home, printing products like HP Tango X - the world’s first smart, app-based home printer - are helping us to make printing relevant again in modern homes and to a new generation of users. This quarter, Tango launched in APJ and expanded into new countries in EMEA. This printer has been called, "the smartest and most elegant printer on the market."

In Office printing, our push into the contractual A3 market continues with the introduction of finishing capabilities on a range of systems that help to drive affordable color printing, best in class performance and energy efficiency. We now have 9% A3 market share, which is up 1.1 points since last year.

In Graphics, we introduced a "design to print" portfolio at Autodesk University to help users experience the speed and simplicity of HP PageWide XL and large format printing solutions.

This kind of innovation, paired with our transition to services, is how we'll reinvent the Print category and deliver on our long-term opportunities.

Looking at the 3D Printing business, we’re expanding both our production and prototyping installed base across the automotive, industrial, consumer, and healthcare markets. Millions of final-production parts are now being produced each quarter on the Multi Jet Fusion platform and the range of applications being printed is incredible.

As part of our Multi Jet Fusion portfolio expansion, this quarter we began ramping shipments of our 300/500 solutions targeted prototyping market. We also continue to execute on our 3D printing Metals technology, with partners including Volkswagen and GKN.

As I speak with CEOs across multiple industries, the Fourth Industrial Revolution is here and is shaping up to be one of the most significant opportunities of our lifetime. The future of manufacturing and production is digital and is becoming a mainstream topic as businesses look to change the way they design, manufacture, and deliver new products to their customers.

Leaders from the corporate world, government, and academia recognize there is incredible potential to not only unlock new economic growth but to also drive a more sustainable Industrial Revolution with new and re-skilled workers. HP is leading the industry forward to democratize manufacturing with our 3D Printing technology. This continues to be an enormously exciting part of our business.
To sum up, HP delivered results consistent with our financial outlook and we are generating strong cash flow and investing in the future to create long-term value. We know we have work to do to manage through the current supplies dynamics and that is exactly what we’re going to do.

We will continue to play our own game, execute our strategy with rigor, and focus on driving sustainable long-term growth. Our markets will continue to change and evolve, and we will focus on adapting and reinventing.

With that, I’ll pass the call over to Steve to go through additional details.

Steve Fieler  
Chief Financial Officer

Thanks, Dion. Looking at the company’s Q1 financial results, we delivered revenue growth with non-GAAP EPS growing even faster. And while our respective business results were mixed, we are making good progress across our Core, Growth, and Future strategy in important areas. In others, we have more work to do. As always, we will continue to balance where to invest and capture opportunities on one hand, and where to drive efficiency or fix challenges on the other - all with a focus on creating long-term shareholder value.

Looking at the details of the first quarter:

Starting with the top line, net revenue was $14.7 billion, up 1% or up 2% in constant currency. Regionally, in constant currency, Americas declined 2%, EMEA was up 2% and APJ grew 11%.

Gross margin was 17.8%, flat year-over-year. Sequentially, gross margins were up 20 basis points driven by improved rate in both Personal Systems and Print.

Non-GAAP operating expenses were $1.6 billion, up 1%, driven by an increase in SG&A.

Non-GAAP net OI&E expense was $57 million for the quarter. We delivered non-GAAP diluted net earnings per share of $0.52 up $0.04 or 8% with a diluted share count of approximately 1.6 billion shares.

Non-GAAP diluted net earnings per share excludes:

- Amortization of intangible assets of $29 million;
- Acquisition-related charges of $10 million;
- Restructuring and other charges of $55 million;
- Non-operating retirement related credits of $12 million;
- Tax adjustments of $55 million;
- And the tax-related impact on all of these items.

As a result, Q1 GAAP diluted net earnings per share was $0.51.

At the segment level:

In Personal Systems, we are pleased with our results and ability to navigate in the current environment. We have demonstrated a strong track record of execution and financial performance and demand for our products remains strong.

Revenue in the first quarter was $9.7 billion, up 2% against the tough year-over-year compare and industry-wide supply constraints. Operating profit was $410 million, up $75 million versus last year.
Operating margins were 4.2%, up 70 basis points year-over-year driven by better pricing and mix partially offset by higher costs and currency.

Sequentially, operating margin was up 50 basis points driven by better pricing and mix as well as cost favorability partially offset by currency.

By customer segment, consumer revenue was up 1% and commercial revenue was up 3%. By product category, revenue was up 6% for notebooks, down 3% for desktops and up 3% for workstations.

In calendar quarter four, our market share was 23.6%. We continued to execute our strategy and focus on growth areas such as Premium and Gaming, and at the same time, leverage the scale of our business, including our supply chain and go-to-market.

In Print, our results were more challenged. We grew hardware revenue, increased our unit share, and continued to make progress in our contractual offerings. However, this performance was offset by disappointing total Supplies revenue.

Let me start with some comments on Supplies and then I'll summarize the rest of the print results.

First quarter Supplies revenue was $3.3 billion, down 3%, which is below our expectations, driven primarily by EMEA. During the quarter, we saw a slowdown in sell-thru, from Tier 1 to Tier 2 channels. Therefore, consistent with our Supplies sales model, we reduced our revenue sell-in so that we would maintain channel inventory levels below our Tier 1 ceilings.

The size of the slowdown made it increasingly apparent that inventory had grown in the ecosystem, including the downstream portion beyond our reporting visibility. This was supported by new share insights. Previously, we had relied primarily on lagging and incomplete market share surveys, but as the installed base of newer, connected toner-based products has increased and become more statistically significant in key geographies, we have gained incremental telemetry data.

This new telemetry data indicated that HP’s Supplies share, and particularly in our Office business, was significantly lower than what we had assumed in our four-box model. We have sized what the potential incremental inventory impact is in the ecosystem, as well as changed our go-forward Supplies growth assumptions.

As a result, as Dion described, we expect to lower the inventory in the entire ecosystem, enabled by reducing our Tier 1 channel inventory. The impact of this action will create an approximately $100 million headwind to Supplies revenue for the remainder of FY19, or roughly 1% of total Supplies revenue. We expect this impact, combined with the lower go-forward Supplies share and pricing assumptions, to result in a Supplies revenue decline of approximately 3% for the year.

In addition, it is important that we tighten the levels of total inventory available in the ecosystem going forward. By doing this, pricing should improve. Therefore, we will be finetuning our operations and further reducing our channel inventory ceilings.

Also, we need to enhance our business management systems including more telemetry data to improve the quality of our inputs. Our four-box model is only as good as its assumptions. With some of our recent enhancements in both big data and software, and an increasing installed base of newer, connected toner-based products, we expect to have an increasingly clearer picture of Office supplies share.
The four-box model remains our best predictor of supplies demand. It does require a combination of data analytics and judgment to accurately forecast our supplies results.

Finally, it's important that we continue making the right returns-based investment, including the investments required to win back share. We have made good progress with previously implemented cost actions which help support these investments, and we will continue to focus on a lean cost structure going forward.

Now looking at the print business overall - total Q1 revenue was $5.1 billion, flat year-over-year. Operating profit grew $22 million versus the prior year, and operating margin was 16.2%, up 50 basis points. The primary drivers of the year-over-year margin improvement were expense management partially offset by unfavorable gross margin.

Total hardware units were up 3%, with commercial units up 4% and consumer units up 2%. In calendar Q4, HP's market share was 41.1% while the overall market declined. We continued to take advantage of opportunities to place NPV positive units.

Turning to cash flow and capital allocation, Q1 cash flow from operations was $862 million and free cash flow was $673 million.

In Q1, the cash conversion cycle was minus 35 days. Sequentially, cash conversion cycle improved three days with a 3-day increase in days payable outstanding, a 1-day increase in days sales outstanding, and a 1-day decrease in days of inventory.

Looking forward to the rest of FY 2019, keep the following in mind related to our overall financial outlook.

- We continue to expect a headwind from currency.

In Personal Systems:
- We expect CPU supply constraints for the first half of calendar 2019 with improvements in the second half;
- And we expect the cost from the overall basket of components and logistics to improve compared to Q1 levels.

In Print:
- We expect Supplies revenue to be approximately minus 3% for the remainder of the fiscal year.
- For corporate investments and other, we expect the quarterly run rate expense to be approximately $175 million per quarter.
- Also, as I have said before, we remain committed to driving productivity and investing for growth at the same time. Effective cost management remains a critical element of our success in very competitive markets, and we'll continue looking for ways to operate more efficiently and effectively.

In addition, for the full year we expect our non-GAAP tax rate, which is based on our long-term non-GAAP financial projection, to be 16% in FY 2019.

Taking these considerations into account, we are providing the following outlook:
- Q2 2019 non-GAAP diluted net earnings per share to be in a range of $0.50 to $0.53;
- Q2 2019 GAAP diluted net earnings per share to be in a range of $0.45 to $0.48.
- We are maintaining our full year fiscal 2019 non-GAAP diluted net earnings per share to be in the range of $2.12 to $2.22 and full year fiscal 2019 GAAP diluted net earnings per share to be in the range of $2 to $2.10
- Full year free cash flow of at least $3.7 billion;
And we continue to expect to return approximately 75% of free cash flow to shareholders through a combination of dividends and share repurchases over the course of the full year.

And now, let’s open the call for questions.

**QUESTION AND ANSWER SECTION**

**Operator:** Thank you. And we will now begin the question-and-answer session. [Operator Instructions] And today’s first questioner will be Shannon Cross with Cross Research. Please go ahead.

**Shannon Cross**

Thank you very much. I wanted to understand, and you gave a lot of disclosures during the call about Supplies. But I guess, Dion, when you look at it, I mean is there something that can be fixed to get back to flat? Is it -- I know it's secular but -- I guess start with the copier initiative and what's going on in 3D Printing and some of the other areas that you'd be able to offset some of the core pressures. So, I guess maybe from a bigger picture standpoint, how are you thinking about this business over time? And should we think about it long term as something that's stable, or will it just be sort of constant decline? And then I have a follow-up.

Thanks, Shannon for the question. I kind of summarized it in terms of if we accept that really it was a loss of share, and to a lesser extent, pricing the question is why we're losing share and what are we going to do about it. It's true that these challenges versus third-party alternatives are not new. We're essentially fighting the same war but we're now engaging on a new battlefield and it's called online.

Historically, we've been very strong in our traditional channels including both retail and the commercial channel. You see online offers are growing route to market for alternatives and we're seeing more of our commercial customers moving to online where our overall share, while still leading, is not as large. The growth of online and the access it enables to remain in aftermarket alternatives has also created incentives for aftermarket alternative manufacturers to invest in breaking our better technology faster. And this has resulted in a fast deceleration in our aftermarket share on some newer platforms than we expected through this route to market. So, while we've been expanding our presence in on the omnichannel, we need to do it faster and we need to do it more effectively. We need new weapons to fight on our new battlefield. We can't just bring a musket to a drone fight. Most importantly, what are we going to do about it? First, we need to continue to evolve our go-to-market and expand our online initiatives as well as our targeted marketing, and we'll certainly be doing that.

The second thing we have to do is we've got to expand our order processes to protect our brand and discourage counterfeit and other IP infringements. We're going to support the value proposition of original supplies in terms of quality and sustainability, as well as environmental impact.

Thirdly, we have to shift our business models in order to diversify our platform for services and secure a high share of the supplies for those units. Both Instant Ink and Managed Print Services are great examples of these models.

Finally, we've got to also evolve our business to include products that generate a larger portion of the lifetime profitability at the time of purchase. We know the situation that we're in, we've named it, and we also know what we need to do about it.
Shannon Cross

Okay. Thank you. And then can you just talk maybe, Steve, a bit about cash flow? You maintain the cash flow and I know it's still early in the year. But, given the pressure on Supplies, what are your other levers that you're going to be pulling?

And how is it susceptible if we do see more of a PC slowdown? Just, I guess your comfort level with the cash flow guidance. Thank you.

Steven Fieler

Yeah. I guess for starters, I am comfortable with the at least $3.7 billion. Similar to what we've done in prior quarters, when we look at our free cash flow outlook, we do take into account our forecast on earnings and our volume, especially in Personal Systems and cash conversion cycle.

And then from an earnings perspective, while we do have the challenge in Supplies, we are taking actions including cost actions to address some of that. So, net-net on our earnings volume and CCC perspective, I feel confident in the guide.

Mentioned last quarter that is worth repeating, we finished Q2 with a negative cash conversion cycle of minus 35 days compared to minus 32 days at the end of Q4. I acknowledged that we would likely have upside to that minus 32 days at the end of last quarter. I still see that as potential upside which helps further confirm and give confidence in at least $3.7 billion number.

Operator: And the next questioner is here Wamsi Mohan with Bank of America Merrill Lynch. Please go ahead.

Wamsi Mohan

Yes. Thank you. Dion, can you talk about why you're seeing this particularly in EMEA in Supplies and the risk that this spreads to other regions as well? And how confident are you about this prediction of 3% decline, and that you have actually captured an appropriate amount of data and telemetry that's guiding that given that this is not the first time that we'll see the Supplies reset? And I have one more question.

Dion J. Weisler

Yeah. No problem, Wamsi. I'll stop and I'm sure Steve may want to chime in as well. I guess the underlying cause as we outlined during the call was the surprise around our assumptions about share were wrong and it was most specifically in EMEA.

There are two main drivers that I'll comment on. The first is the omni-channel impact and the second is our operational visibility. Let me start with the omni-channel. The omni-channel consumers' preferences to buy online are definitely not new. What we've seen is more commercial customers purchasing online.

And while our online business has been growing significantly and we have leading share online, it's at a lower percentage than our share with traditional commercial resellers and install retailers. Where we went wrong is that we had incorrect Supplies share assumptions in our 4-box model regarding the plans to Supplies selling in quarter
one 2019 and in prior quarters. This made it very difficult to spot the buying behavior change as a trend.

It didn't necessarily all happen in Q1, but now that we understand the trend better, it has driven a change in our expectations for share going forward. In addition to that, the macro uncertainty has also increased, and we've seen further price sensitivity among customers pressuring both our share and our Supplies pricing.

If I turn to operational issues, since we don't have much visibility into the downstream channel ecosystem and we will maintaining CI levels below our Tier one ceiling, we did not see clearly enough that we had an issue.

However, we saw lower sell-through during the course of quarter one and adjusted our operational plans to reduce shipments, consistent with our Supplies sales model.

We also received new share analytics. It's a really important point and we were able to triangulate that our revised share assumptions were below our previous ones. And so, in retrospect, when the new share insights are applied, we believe that our inventories in the whole ecosystem began growing in the prior quarters.

However, the price share assumptions made it hard to call this out of the trend as it was masking the underlying problem. And as a result of that, we've adjusted our go-forward 4-box assumptions and sizing inventory impact, as they've talked about, to be approximately $100 million.

Steven Fieler

I'll just add to that, and address more specifically on the extent beyond EMEA and then even the sizing of that $100 million. So, in Q1, certainly the revenue weakness in the incorrect share assumptions, were primarily in EMEA. And while the multi-tier channel dynamics that have been described are not unique to EMEA, they are more prevalent there.

That said, the competitive trends are global, and both the changes in the customer buying with more commercial customers purchasing supplies online, and the pricing that Dion just referred to, are more macro in nature. And therefore, when we revisited our 4-box assumptions, we did look at all regions and revised our share and pricing accordingly, and that's all embedded in our guidance.

And then, specifically, I think you indicated what happened before, in terms of the channel itself, just to put context we're talking roughly 1% of our total Supplies stream of over $13 billion. And while there are some things that are clear data, there are others that we need to triangulate on. And we can't be precise on all fronts, especially because we don't have visibility into the entire downstream unmonitored ecosystem.

So, our approach here was to triangulate on a channel inventory number across the ecosystem by analyzing different data points. We compared our old share assumptions with the revised one and have been informed by big data. And we also looked at prior selling statistics and CI trends. We didn't estimate how much additional downstream channel inventory may exist, and we believe $100 million is the right estimate.

Wamsi Mohan

Okay. Thanks for all the color. Appreciate that. And then if I could just quickly follow-up, can you talk about the longer-term print margin assumptions for the segment, now given that we're talking about some structural headwinds here on Supplies? Thank you.

Steven Fieler

Yeah. So, we obviously delivered 16.2% in the quarter. And when we entered FY 2019, Dion and I had a good
conversation. We actually took proactive steps to address some of the growing global uncertainty we saw at the
time and began some target expense reductions. We didn't anticipate this Supplies challenge, but we saw, and we
reacted quickly and further tightened OpEx.

It's important that we continue investing in the areas where we expect good returns like our growth initiatives,
placing the right units and evolving our business model to be more contractual. So that's important for us to
continue. It is why we must continue to drive more productivity and more efficiency in the model. I do
acknowledge that maintaining the 16% going forward is tougher given the supplies challenge, but it does remain
our target.

Operator: And our next questioner today will be Katy Huberty with Morgan Stanley. Please go ahead.

Katy Huberty

Thank you. Good afternoon. Just following up on the further Supplies discussion, it sounds like some of the
visibility into market share came on the back of the telemetry data, which is something that you've talked about for
a couple of years. Why this quarter did that show you a picture that actual market share was different than you
saw? Why weren't the systems flagging that ahead of time? And do you have to invest in technologies so that you
can get better insights out of that data? And then I have a follow up.

Dion J. Weisler

Thanks, Katy. To help you understand it better, let me explain a little bit about our methodology that drives the
share assumptions we use on office supplies which is primarily toner-based and how it's changed. It's worth
noting that it's different than ink-based products where we've historically had more telemetry data. Previously, we
have used periodic third-party survey data and market research aggregators to estimate toner supply shares. We
didn't have a statistically significant sample from the system telemetry and the instrumentation nor the capabilities
to calculate share for toner-based products in the install-based. We've had this data for our ink-based products,
but due to the limited number of machines that were phoning home in commercial due to enterprise firewall
constraints and otherwise unconnected devices, we've had to build the connected installed base over time.

And so, with the increasing mix of newer products and the growth of the connected installed base combined with
improvements in big data, we've been able to move to a better source of share database on system telemetry. It's
worth noting that the share we calculate through big data reflects the share at the time the customer hits the print
button which maybe months after they actually purchased the supplies.

So, when the new share insights are applied, we believe that the inventory in the ecosystem have been growing
during quarter one and previous quarters. And the combined effective, the change in market dynamics impacting
share and the lack of visibility to the change, resulted in excess HP supplies in the market and lower Tier one
channel sell-through. Having said all that, we will obviously need to continue to refine the telemetry data and our
instrumentation and business management system as we move forward.

Katy Huberty

Thank you for that. And then just shifting the discussion to PCs. How is the industry reacting to lower memory
prices? Is that at all getting passed through in prices to customers? Or was holding on to the lower cost a
contributor to the margin expansion for both you and some of your peers this quarter?
Steven Fieler

Yes. When we looked at our margin in Q1 and sort of the ASP portion of that, the large sort of greater than 50% increase in ASPs was actually driven by mix with the remainder being overall pricing dynamics. And we did see some favorability from Q4 to Q1. We'd expect continued favorability from Q1 to Q2 on the overall commodities. Exactly how this will play out in our margins going forward is going to depend on our overall market and pricing dynamics. Obviously, we've got currency volatility. We continue to see likely headwinds from currency will partially offset some of the tailwinds we are seeing on commodity costs.

Operator: And our next questioner today will be Toni Sacconaghi with Bernstein. Please go ahead.

Toni Sacconaghi

Yes. Thank you. Your guidance for EPS for Q2 is a little bit -- the midpoint of it is a little bit below street consensus. Should we interpret that as you're feeling now more confident in the low end of your EPS guidance, particularly in light of the Supplies news? Or do you believe that consensus has mis-modeled seasonality for the year? And I have a follow-up, please.

Yeah. I think in general, our Q2 EPS guide is in line with normal seasonality. And I think that's on the full year, so maybe I'll comment the full year and get back to Q2. Full year, we are maintaining our guide at $2.12 to $2.22 non-GAAP EPS. We are confident that we can deliver across the various puts and takes. We have factored in that the lower Supplies revenue, the CPU constraints which we had already taken into account and FX headwinds.

We've multiple levers to offset, as I mentioned earlier, expect to continue driving cost management with to be the in-flight initiatives that we can accelerate or continue to push around digital transformation. I mentioned the components on the prior call or prior question. And so how much of that sticks again is to be seen.

So, we do have levers. But if I reflect back at SAM, when I laid out the FY 2019 guidance, and broke it up between the segments, which was about $0.05 to $0.12 of the year-over-year increase, and shares and other about $0.05 to $0.08 of the year-over-year increase, I think we're generally in line with that on the segment's strength in Personal Systems and now we have some challenge on Print overall.

And corporate and other have a year-over-year favorability on shares to a lesser extent OI&E. But we are investing more in corporate investments and other. So, net-net, I feel confident holding the midpoint of our guide.

Toni Sacconaghi

Okay. And then just back to Supplies. So, if Europe is a 30-year business and was down 9% that suggests that Supplies outside of Europe was down zero. And I guess the question would be why does the rest of the world not start to migrate towards sort of negative sell-through growth on a go-forward basis? And, accordingly, why do you have confidence in minus 3% growth?

Yeah. As I mentioned earlier, a clear issue in Q1 was and pertains to EMEA. And even the share delta from the assumptions that we previously had to what we now used our share was primarily the delta was in EMEA. That being said, we looked and re-analyzed the entire business across all regions. And the minus 3%, we believe, is a prudent guide.
It does take into account both number one, the channel inventory in the entire ecosystem. Again, it's about a point of it the $100 million takedown. And the second is we did revise our shares and pricing assumptions worldwide. So, net-net, we think that it's the right way to look at the business even though the issue in Q1 was primarily EMEA-based.

Operator: And our next questioner today will be Steve Milunovich with Wolfe Research. Please go ahead.

Steve Milunovich

Thank you very much. Just one question. In the past at some of the SAM meetings, you've talked about a $1 billion negative hit from commodity costs. I'm just curious how much of a positive are you expecting this year in the swing? One would expect it could be quite substantial. You've also in the past talked about the ability to offset that by taking out $1 billion of costs annually in the business and so that's the normal course thing we have to do. Are you still on track to take out about $1 billion from the cost base?

So, let me respond on that too. On the first piece, actually, on a year-over-year basis, costs and commodity costs are still a headwind. Sequentially, they're a tailwind but we're still from a year-over-year basis going through the period where costs had risen for some time. I think whether it be headwind or tailwind, I think the reality is that the market adjusts pretty rapidly to different changes in component costs and other short-term factors such as currency. So, how much actually falls to the bottom-line or how much we need to mitigate through additional productivity is very dependent upon the circumstances. In terms of the actual dollars that we're driving, we do remain on track to our productivity initiatives. It's an area where we'll continue to look to accelerate candidly given some of the Supplies challenges. But this is really in the DNA of HP, and I'm very confident in our ability to drive expense actions where we need to.

And the only thing I would add to that is that we won't lead the market down on price. We obviously need to remain competitive in the marketplace and we've been investing heavily in innovation and we believe our customers our valuing that innovation and the demand signal for our products remains really strong.

Operator: The next questioner today would be Rod Hall with Goldman Sachs. Please go ahead.

Roderick Hall

Yeah, I just want to come back to the telemetry question and ask you if you could give us some idea where you are in the process of improving telemetry. So, have you -- what kind of sample do you have? So, should we expect for you to continue to look at this and improve telemetry over time and therefore maybe come back to us and continue to adjust this inventory in the channel? Or is everything pretty much done now, and you wouldn't expect any changes? And then I have a follow-up.

I guess, for starters, the 4-box model historically has been a relatively good predictor. And I think we need to acknowledge that it is not perfect and there is data and science. There is also judgment to it. And to your question, we do need to get better with the telemetry data and all sort of bubbled up to more analytics and business management system in general. And so, where it really depends upon, I would sort of call out a few dimensions. It's really the quantity, quality and speed of the telemetry. And from a quantity perspective, it's installing and shipping more of our installed base with the kind of the newer toner-based telemetrics, such as the Jet Intelligence. But it's also ensuring that we have access to that. And so increasingly, the penetration of our installed base and quantity is important. But, also, then the quality and speed in which we can analyze this information applies more predictive BI analysis around it. So, we are investing in this and I would expect it to get better over time. But, to my opening comments, we have been pretty good at predicting with the 4-box model and this is fine-
With all that said and done, I think it's also important to note someone mentioned earlier. We need to shift our business models in order to diversify our profit pools through services and securing a high share of the supplies for these units. And so, I am encouraged by the work that we're doing around Instant Ink and growing our installed base there as well as Managed Print Services.

They're great examples of that model. And secondly, what I talked about is we've got to evolve our business to include products that generate a larger portion of the lifetime profitability at the time of purchase.

Roderick Hall

Okay. And then I wanted -- on the follow-up, I just wanted to come back to the cash flow guidance. And I guess, do you see that there's any way -- I guess the issue it makes sense to us that you could take working capital out, but this is a year when Personal Systems works, we're not expecting a lot of growth whereas we've had double-digit growth the last couple of years.

So, it seems like a tougher year to take working capital out. So, I just wonder if there's anything else you can do to help us bridge back to the cash flow guidance or just that the cash flow guidance is a little bit more aggressive considering the underlying fundamentals.

Steven Fieler

Yeah, I already highlighted the likely improvement in cash conversion cycle and that obviously brings cash into the current year. When the Personal Systems business grows sequentially even if it's small growth it does pull cash into that period.

And so, while we are not anticipating the growth that we have seen in prior years we do -- we are factoring in what we think the revenue and volume trajectory is of Personal Systems. And as long as that business has sequential growth, it is a cash generator.

Operator: And our last questioner today will be Ananda Baruah with Loop Capital. Please go ahead.

Ananda Baruah

Hi, great guys. Thank you for taking the question. Two, if I could. Just going back to Supplies, Dion is there any way for us to think about how you're thinking about what long-term new normalized Supplies rates will be?

And appreciate all the detail that you guys gave but how should we be thinking about -- what's the best way for our models after 2019 for us to be thinking about it? Best you can tell right now. And then I have a follow-up. Thanks.

Dion J. Weisler

Yeah, look. First, as Steve alluded to in our outlook, we've taken into account the approximately $100 million headwind from reducing inventory in the Supplies ecosystem. This is about one point of Supplies revenue as Steve highlighted.
And the remainder of the base is really based on factoring in the revised share and the pricing assumptions. And future outlook beyond 2019 will depend upon a number of things including the progress we're making across each of our 4-box drivers and the pace of our business model evolution that I referred to at the last question. So, at this time just as we ordinarily do, we're not going to comment about future years.

Steven Fieler

And maybe to provide a little additional context, I'll just sort of give you an update of where we are on the 4-box. Enrique [Lores] shared at SAM what we thought the various 4-box arrows looked like. And if Enrique were doing that today, given the changes we've seen driven by the commercial channel and evolving marketplace Dion described.

First, we wouldn't expect any changes to installed base or usage, where we would expect some changes in office whereas we have previously had an arrow going up of gaining share. Given the new data, we would actually expect share to be down.

To a lesser extent on office pricing which was a down arrow driven by the mix more to A3, we've offered additional commentary that there would be pricing pressures again as we described on the call.

On home, almost all the boxes will remain the same except for share given that a smaller portion of home does have toner-based products. And, so, the share we have previously had going up. It would still be going up, but not as I guess strong of an arrow going up as we had said at SAM.

Ananda Baruah

That's helpful. I appreciate that, and then just a quick follow-up. Reiterating the EPS guidance, should we think any differently now about the potential for the upper half of the range? I mean our assumptions were that you had a good chance to beat the EPS guidance previously. So maybe there's still a good degree of confidence to land the upper half as well. But how should we think about that where it stands today? That's it for me. Thanks.

Well, as always, we view and take a very prudent view to our guidance, taking into account all of the puts and takes and risks and opportunities that we see, and we provide a range around it. I'm not going to comment specifically other than we have a range and we've got confidence we can deliver within it.

And we hold that range.

Yeah.

Dion J. Weisler

So, thank you everyone for taking the time to join us. We remain confident in our business. We're reaffirming our full year EPS, and full year cash flow guidance. We're relentless in both managing our costs and reinvesting to create long-term value. We know we have work to do to manage through the current dynamics, and that's exactly what we're going to do and what you should expect from us. We'll continue to play our own game. We'll execute to our strategy with rigor and focus on driving sustainable long-term earnings and cash flow growth. Thanks very much.
Operator: And the conference has now concluded. Thank you for attending today’s presentation and you may now disconnect your lines.