

Introduction

Thank you. This is Patricia Murphy, Vice President of Investor Relations for IBM. I'm here today with Martin Schroeter, IBM's Senior Vice President and Chief Financial Officer. I'd like to welcome you to our second quarter earnings presentation.

The prepared remarks will be available within a couple of hours, and a replay of the webcast will be posted by this time tomorrow.

I'll remind you that certain comments made in this presentation may be characterized as forward looking under the Private Securities Litigation Reform Act of 1995. Those statements involve a number of factors that could cause actual results to differ materially. Additional information concerning these factors is contained in the company's filings with the SEC. Copies are available from the SEC, from the IBM web site, or from us in Investor Relations.

Our presentation also includes certain non-GAAP financial measures, in an effort to provide additional information to investors. All non-GAAP measures have been reconciled to their related GAAP measures in accordance with SEC rules. You will find reconciliation charts at the end of the presentation, and in the Form 8-K submitted to the SEC.

So with that, I'll turn the call over to Martin Schroeter.

Overview

Thanks Patricia. In the second quarter, we delivered \$19.3 billion of revenue, operating pre-tax income of over \$3 billion, operating earnings per share of \$2.97, and free cash flow of over two-and-a-half billion dollars.

The quarter played out as we expected, with continued solid growth in our strategic imperatives, which now really reflects organic growth. We wrapped on the acquisitive content, and we're at the stage where we can start to get some efficiency as a result of bringing them into IBM, while we build on the new content. Our gross margin is up over two-and-a-half points sequentially, and positions us for the continued improvement over the course of the year we talked about 90 days ago. And we had good free cash flow performance. All, again, as we expected.

In the second quarter, we signed a number of large contracts in Global Technology Services, and again grew our Global Business Services signings, both of which will start to contribute in the second half. And since the quarter ended, we announced our new IBM Z system, which will be available later this quarter.

With all of this, we expect improved performance in revenue and gross margin in the second half, and we continue to expect at least \$13.80 of operating EPS, and free cash flow consistent with last year. I'll spend time on the first to second half dynamics a little later, and you'll see it's very similar to what we talked about in April.

A Cognitive Solutions & Cloud Platform Company

We have been focused on helping our enterprise clients transform their businesses to leverage their data for competitive advantage, and to improve the efficiency and agility of their IT environments. Our strategic imperatives performance has been an indication of our progress in moving to these areas. As you know, our “strategic imperatives” aren’t separate businesses, but signposts that represent the revenue across our business lines that work together to address demand for analytics, cloud, security, mobile and social. Our clients are taking the productivity savings we’re delivering to them in the more traditional areas of IT, and reinvesting those savings to move into these new areas. These are the dynamics you’ve seen in our revenue.

In the quarter, our strategic imperatives revenue was up seven percent at constant currency, which as I said is pretty much all organic growth. Over the last twelve months, revenue from our strategic imperatives was up 12 percent to over \$34 billion, and now represents 43 percent of IBM. As is typical, I’ll focus on constant currency growth rates throughout.

A large part of our strategic imperatives are delivered as a service. Our as-a-Service revenue was up over 30 percent in the second, and we exited the quarter with an \$8.8 billion annual run rate. IBM's cloud revenue on a trailing twelve-month basis is now over \$15 billion. That’s nearly 20 percent of IBM’s revenue. Let me spend a minute underscoring how we've been able to build cloud to a \$15 billion business, and why enterprises are increasingly moving to the IBM Cloud.

In the second quarter we added more leading companies to the IBM Cloud. For example, Lloyds bank has chosen the IBM Cloud. Lloyds is one of the most advanced digital banks in the world, and they expect to become even more agile by leveraging IBM's unique combination of private and public cloud capabilities. American Airlines is also using the IBM Cloud as the foundation for its broad-based cloud transformation.

Clients are choosing the IBM Cloud for a number of reasons. First, our cloud is hybrid, built for the enterprise. That's public and private, and integrated with on-prem data and workloads. Second, they want to leverage our expertise in industry and their existing business processes and systems. And we know how to migrate them from one era to the next. Third, they trust IBM and the IBM Cloud to protect and preserve not only their data, but also their insights and AI training engines, to ensure all the value from their data accrues to them vs going to educate a central knowledge graph. And of course we continue to add state-of-the-art tools and technologies to exploit enterprise data in the cloud. This includes Watson, and Blockchain.

You see this last point play out as companies deploy IBM Blockchain and Watson solutions in the cloud. Recently, we announced an agreement with a consortium of seven of Europe's top banks to create a new blockchain service for trade finance for the small and medium business market. And in Australia, we are working with banks to launch new commercial property leasing services based on blockchain. And remember we're already working with many others including DTCC, CLS and Northern Trust. Beyond financial services we're working with industry leaders like Walmart in food safety, and Maersk in shipping. It's still early, but we see a lot of opportunity leveraging blockchain, in the cloud, and across multiple industries.

Similarly, in the second quarter, we saw Watson deployments continue to expand globally. The cognitive opportunity is a global one. It's not centered in New York, or Boston, or Silicon Valley, so you can't just look and listen in those places. In healthcare alone you'd miss this quarter that the first healthcare provider in Latin America is deploying Watson for Oncology, and Baheal Pharmaceutical Group is bringing Watson for Genomics to clinicians across China. In fact, 80 percent of the hospitals who have adopted Watson for Oncology are outside of the US. And that's just healthcare. We have Watson deployed with other leaders like Bradesco, Honda and Vodafone as well.

So across industries and around the world our clients realize that data, in fact, their own data, is the root of competitive advantage for all companies. Remember, 80 percent of the world's data is owned by enterprises. It is not searchable on the world-wide web. It is customer data, patient data, clinical data, supply chain data, transaction data. And companies want to unlock and exploit that data. And so that's why enterprises will move to cognitive on the cloud with someone they trust, who has leading tools and industry expertise, and a data model and business model consistent with their goals. That is the IBM Cloud plus Watson.

I want to also remind you of the importance of the underlying technology stack. We've continued to reinvent the mainframe and our Power platform to address the most contemporary enterprise workloads. Our new z14 mainframe is a great example. With a breakthrough in data encryption, IBM Z is capable of encrypting all data associated with any application, service or database, all of the time, and, with no application change, and no performance impact. Think about what that means for addressing global data breaches, the increase in government regulations, and blockchain opportunities. It's the biggest reinvention of our mainframe technology since the reinvention for Linux and open source software 15 years ago.

I'll touch on additional progress and examples of where we're winning in these areas and more details on our new mainframe capabilities as I go through the segment discussions. But first, I'll walk through our financial metrics.

Key Financial Metrics

Our revenue for the quarter was \$19.3 billion, which is down 3 percent at constant currency. As expected, we had a larger currency headwind to revenue growth, it was about twice the impact of the first quarter.

I mentioned earlier that we wrapped on the acquisitions we completed in early 2016. We had two points of benefit in the first quarter from acquisitions, and only about 40 basis points in the second. So excluding the acquisitive content, our year-to-year revenue performance was a modest improvement over last quarter's rate.

When you look at our revenue performance by geography, in the Americas, revenue in the US was down, while we had solid growth in Canada and Latin America. Our overall performance in Europe declined, centered in Germany and the UK. You'll recall last quarter I talked about the impact of the conclusion of services contracts in those countries, which will continue through the year, though we'll get some benefit from the new deals we signed in the second half. We had sequential improvement in Asia Pacific, with growth in several markets including Japan, which is our second largest country. I'll come back to the revenue trajectory later in the call.

When you look at our gross profit, our margin was down year to year, but significantly better than the first quarter year-to-year performance. The year-to-year margin decline reflects both the mix and investments. From first to second quarter, we got substantial leverage from our high value model. We added a billion gross profit dollars from first to second quarter on \$1.1 billion of additional revenue, while last year we had similar gross profit improvement from first to second, but we needed more revenue to do it, so that of course resulted in an improved trajectory in the year-to-year margin dynamics. In fact, we had sequential improvement in the year-to-year gross margin performance in each of our five segments. We'll talk more about the drivers and trends in the segment discussions.

Our expense was down six percent versus last year, with about half of that due to currency, and the balance reflects an increased focus on driving efficiency in our spend base. As I said, we've been shifting and adding resources as we invest to build solutions and platforms. In fact, in the first half of this year we hired 20,000 people into the business. So our cost and expense profile reflects a balance between investing in key areas and driving efficiency across the spend base.

Our operating pre-tax profit was nearly \$3.1 billion, which is up about \$1 billion from the first quarter.

Our tax rate for the quarter reflects an ongoing operating effective tax rate of just under 15 percent, consistent with last quarter. We also had discrete tax benefits in the second quarter of about \$170, million or 18 cents of operating EPS.

We generated \$2.8 billion of operating net income in the quarter, and net income margin of 14 and-a-half percent, which is up 50 basis points year to year.

On the bottom line, our Operating EPS was \$2.97.

We generated over two-and-a-half billion dollars of free cash flow in the quarter, which is up year to year, and over the last twelve months, our free cash flow was 94 percent of our GAAP net income.

Cognitive Solutions Segment

So now turning to our segments, Cognitive Solutions had \$4.6 billion of revenue, continued growth in annuity content led by SaaS, and an improved margin profile.

Our annuity content which represents 80 percent of Cognitive, was up two percent year to year, driven by roughly four-and-a-half percent growth in Solutions Software. We had strong SaaS performance, with strong double-digit growth in signings and revenue again this quarter, revenue was up nearly 30 percent. As our SaaS business grows, we continue to invest to build scale. The software transactional revenue was down double digits, due to declines in some of our license-based offerings. And as you know, this has a larger impact in the second quarter given the seasonality of our transactions. As we've said before, many of our license-based offerings are high value, but in declining markets. We also wrapped on most of our acquisitions, and are focused on investing to combine organic and acquired content to build cloud-based cognitive offerings.

Let me talk about the progress we're making in parts of the Solutions Software portfolio. In analytics, we saw good growth in Watson Health and Watson Financial Services and in BI and data discovery led by Cognos. We announced a partnership with Hortonworks to combine our Data Science Experience and Machine Learning with Hortonworks Data Platform to allow developers to access data science and cognitive tools and create intelligent apps.

We also had strong growth in our Watson platform, which underpins our enterprise AI strategy, as we build scale. Conversation API usage and the number of active users are up strong double digits quarter to quarter, as we help clients embed cognitive into their workflows. For example, Credit Mutuel is live with multiple use cases including virtual assistants for insurance and savings. These cognitive applications were rolled out to over 20,000 agents across France, enhancing their quality of service for 12

million customers. And this quarter, we added new partners, like LivePerson, which provides a conversational platform used for the customer care needs of over 18,000 businesses. Given the growing relevance of AI and digital channels, they announced a new offering, called “LiveEngage with Watson”, to transform the customer care space. LiveEngage can offer intelligent personalized digital support to each customer. This is an appealing market. The value Watson provides depends on the complexity of the conversation, so the number of API calls can vary, but we have the potential to deliver value from every digital conversation. This will scale as more of today’s 270 billion customer support phone calls shift to digital interactions.

Within our vertical strategy, Watson Health had strong growth, particularly in the areas of State and Local Government agencies and Oncology, as we continue scaling. While market uncertainty persists, government agencies still face the realities of having to deliver services more efficiently, and our Analytics and Social Program Management offerings can help clients make better-informed decisions, to reduce healthcare costs and improve outcomes. Both offerings drove strong growth this quarter. Oncology is also scaling, and is now in over fifty hospitals on five continents. Through the first half, Watson's worked with nearly 40,000 patients and doctors, and this will grow to approximately 100,000 by year end, and many of these have life threatening diseases such as cancer. Watson for Oncology alone has the potential to reach millions around the world, based just on the hospital systems we’ve engaged to date. So, we're just at the beginning of scaling. We continue to add new cancer types, so our patient reach continues to grow. We’re not just scaling our business into new areas, but also improving deployment. For example, we implemented Watson for Oncology at Baheal Pharmaceutical Group in less than a month. This quarter, as I mentioned earlier, we expanded with Baheal into Genomics. We also announced a new collaboration with Hackensack Meridian Health, a prominent U.S. provider, to combine Watson for Oncology with their real-world data to help oncologists improve cancer treatment and reduce costs.

For another industry example, Watson for Financial Services, which includes the Promontory acquisition, also contributed to growth this quarter. We launched industry expert-trained AI Risk and Compliance solutions, including Anti-Money Laundering and Know Your Customer.

Beyond verticals, Security, including Security Services which is reported in Technology Services and Cloud Platforms, grew again this quarter. Offerings like QRadar and Resilient had strong growth, as customers looked to strengthen their ability to both detect and respond to security threats. This quarter, we announced a partnership with Cisco to address this growing threat of cybercrime. We will collaborate on threat intelligence research by sharing data, integrating our offerings and coordinating on major cybersecurity incidents.

Turning to profit, Cognitive Solutions gross margin is down year to year, though improving sequentially, driven by the continued investment into strategic areas, including acquisitions, and the mix toward SaaS. Cognitive pre-tax income is up year to year. And this segment has very high PTI margins, which expanded again this quarter, even with a high level of investment as we continue to embed cognitive into offerings, build and scale platforms, and drive vertical solutions.

Global Business Services Segment

In Global Business Services, we grew signings for the second consecutive quarter, and had modest improvement in the year-to-year revenue performance as compared to first.

As we've talked about, we've realigned our practice model to improve productivity and focus our strategy around three growth platforms. The first platform is where we help our clients build and execute digital strategies. Next is where we help our clients re-engineer their core processes. And the third platform is where we modernize our clients' applications and move them to the cloud. This differentiated strategy is beginning to take hold as we accelerated our signings growth in GBS this quarter. Our cloud, mobile, and analytics practices delivered strong revenue growth.

Though Consulting revenue was down one percent, our trajectory improved again this quarter with strong growth in our digital offerings. We continue to decline in traditional enterprise application work as we shift resources away from these areas to new areas such as SAP HANA, Workday and Salesforce. We've talked about the path to improvement in GBS, which starts with consistent signings growth, which adds to the backlog and then ultimately revenue. Our Consulting backlog this quarter was nearly flat year to year after several quarters of declines. We expect the Consulting trajectory improvement to continue in the second half. Our mobile practice continues to expand with a portfolio of cognitive-enabled enterprise iOS apps that can redesign our clients' work flows. This quarter we announced new initiatives at several different clients including Lufthansa Group and Singapore Airlines.

Application Management was down one percent, that's been relatively stable over the past several quarters. Clients continue to look to us to manage the lifecycle of their critical applications. We help them move to new cloud architectures that improve the speed and agility of their operations while leveraging the value of their current systems and data.

Turning to profit, GBS gross profit margin was up over a point sequentially. On a quarter-to-quarter basis we added more gross profit dollars than we did a year ago, and we were able to do this on less incremental revenue. This is evidence of the turnaround that we expect in GBS as we move forward. We continue to shift to higher value work while focusing on improving productivity. We yielded savings from workforce actions and continued to invest to remix our skills. While we are seeing pricing pressure in the areas that are not as differentiated, we continue to focus on capturing the value of our new offerings. We've streamlined our practice infrastructure and are driving efficiencies in our delivery model through new methods and project management approaches.

In summary, in GBS this quarter we continued many of the improving trends that started in the first quarter. As we said before, this starts with consistent signings growth and we grew signings for the second consecutive quarter. We continue to shift to our high value strategic imperatives and we are starting to see the benefits from a redesigned practice model and refocused growth strategy. We have a strong pipeline of opportunities. Put all this together and we expect to see continued improvement in GBS in the second half.

Technology Services and Cloud Platforms

In Technology Services and Cloud Platforms we delivered \$8.4 billion of revenue. While revenue performance decelerated, our margin profile improved compared to last quarter, and we signed a number of contracts that will contribute to improved performance in the second half. The deceleration was driven by Infrastructure Services, as we wrapped on some acquisitive content and shifted away from lower value work. While this shift impacted our revenue, it contributed to the improved gross margin trajectory. We also continue to be impacted by some large contracts that concluded, particularly in Europe, which we talked about last quarter.

Our business model in Infrastructure Services is one where we are constantly delivering productivity to our clients. Our clients trust us with their most critical IT operations as we continue to lead this space. The way that we expand our footprint is by helping clients move to cloud and drive new workloads, by acquiring new scope and new clients. This quarter we were able to close some substantial new transactions, including a six-year, \$700 million agreement with Bombardier. We'll move them to the IBM Cloud and help integrate their operations globally. This will drive productivity, improve their agility, and ultimately provide competitive advantage. I mentioned Lloyds, where we signed a 10-year cloud agreement valued at around a billion and a half. We'll move the bank to the IBM Cloud and migrate their application suites to this infrastructure. And, earlier this quarter we entered into a definitive agreement with a large telco to acquire its cloud and managed hosting business. This transaction is expected to close in the second half of 2017. We're working with them on a number of other strategic initiatives including networking and cloud services. These transactions will help improve our revenue trajectory in the second half.

Technical Support Services revenue was down one percent, a point better than last quarter's rate. We continue to grow in our multi-vendor support

services, where we provide wall-to-wall support for our clients' IT operations.

Integration Software revenue was down one percent, which is nearly two points better than the first quarter's rate. Our annuity base remains stable with strong growth in SaaS across our offerings, including WebSphere Application Server and our Hybrid Transformation and Connect to Cloud offerings. Transactional revenue within Integration Software declined, as more of this portfolio shifts to the IBM Cloud, which will benefit us over time.

Across the segment, we delivered strong growth in cloud, analytics, mobile, and security. The as-a-Service run-rate for the segment increased to \$5.8 billion. Clients are moving to the IBM Cloud because it's built for the enterprise and can optimize workloads across hybrid environments. The underlying architecture protects our clients' data and insights and is optimized for cognitive workloads to help our clients create new business models. The American Airlines example I referenced earlier is a great example, where we're building on the partnership we signed last year. American Airlines announced this quarter they will move to the IBM Cloud, and use it as the foundation for their digital transformation. They will migrate critical applications including aa.com, their customer facing mobility app, and their global network of kiosks.

Looking at profit, gross profit margin for the segment was down year to year, but up a point sequentially. On a quarter-to-quarter basis we added about the same gross profit dollars we did a year ago on less than half the incremental revenue. So you can see the leverage you can get in this business. We drove efficiencies in services delivery, and yielded savings from workforce actions. We've been investing in our automation capabilities and launched the "IBM Services Platform with Watson" last week. This platform offers next generation enterprise IT services using cognitive technology, and will drive operational efficiencies and improved delivery performance for our clients. We also continue to invest in our IBM Cloud capabilities. We announced the opening of four new cloud centers in

the US, extending our capacity with centers in key local markets across 19 different countries. This provides enterprises with the ability to run their data and applications locally and meet regulatory requirements. Clients can provision cloud infrastructure when and where they need it.

In summary, for Technology Services and Cloud Platforms, Infrastructure Services revenue decelerated given the wrap on some acquisitive content and the shift away from lower value work. Given some of the significant transactions we closed this quarter and strong demand for our cloud services, we expect our revenue trajectory to improve in the second half. We also expect the improved trends in profit to continue.

Systems Segments

In Systems, this quarter we had a significant improvement in our year-to-year revenue trajectory, and an improved margin profile quarter to quarter. This is the second quarter in a row with growth in storage. Our Power declines moderated, and our mainframe business is consistent with what you would expect at the end of a cycle. Mainframe and Storage margins grew year to year and Power margins improved sequentially. Our overall Systems margin was down year to year, reflecting mix, largely due to product transitions.

In z Systems, as I mentioned, our results are reflective of being in the tenth and final quarter of the z13 product cycle. Revenue declined year to year, gross margin expanded and we added four new clients this quarter for a total of 91 since the launch of z13. We continue to deliver innovation on the platform in support of our clients' evolving workload needs. For example, a large bank in Europe selected LinuxONE as the strategic platform for their BPM deployments, which will help the bank achieve significant savings over the next five years. Two large government clients expanded their mainframe capacity, helping them drive down the operating costs for these agencies. In the areas of new workloads, we had wins in both blockchain and instant payments. The blockchain wins were geographically disperse as we help our clients around the world tackle business challenges with the emerging blockchain technology. We closed three instant payment deals in Europe to help our banking clients comply with the EU payment modernization initiative.

I want to spend a minute on our new z14 mainframe that we announced yesterday. After three years of development and working with more than 150 clients, this is the world's most powerful transaction system, capable of running more than 12 billion encrypted transactions per day, and provides breakthrough pervasive encryption. This data encryption engine encrypts all data associated with any application, cloud service or database all of the time, without the possibility of human intervention. And that's with no

application change, and no performance impact. We took on this challenge to address both the global data breach epidemic and the need to operate within government regulations. In fact, of the nine billion records breached in the past five years, only four percent were encrypted. Even with the rise of cloud data centers, little real progress had been made encrypting data at any scale because it's hard, expensive, and it impacts performance. That is, until now. Our new z14 system encrypts data 18 times faster than x86 platforms, and the x86 platforms are 20 times more expensive. The reason why 92 of the world's top 100 banks rely on the mainframe is for its high value, secure and scalable platform. The reason they stay on it is because of its appeal in new workloads moving onto the platform, and the advances we continue to make in the underlying technologies to address these, like the new z14 with its unprecedented encryption capabilities. And we do this with increased performance at lower cost, which is really valuable to our enterprise clients. So, we can deliver all of this within an economic equation that works at the scale required by our clients.

The Power growth rate improved sequentially, but was still down, the improvement reflects our transition to a growing Linux market, while continuing to serve a high value, but declining, UNIX market. Our Linux-on-Power revenue grew and we gained share. We again had double-digit growth in Linux workloads. HANA on Power continues to play an important role in that success. By contrast, in UNIX, declines were driven by our low-end and midrange systems. High-end systems grew. Our Power portfolio is focused on cognitive and cloud opportunities, and we continued to expand capabilities and partnerships. During the second quarter we announced new integrated offerings with Hortonworks, designed to help everyone from data scientists to business leaders better analyze and manage their data and accelerate decision making. And we announced integrated offerings with Nutanix to deliver hyper-converged solutions targeting critical workloads in large enterprises. We also announced a new version of PowerAI which, paired with IBM Linux HPC servers, reduces training of deep learning from weeks to hours. I'll remind you that we will bring the next generation POWER9 to market in fourth quarter, starting with two US Department of Energy funded national labs. There are three labs

of this type, but no vendor can win more than two, so we've won all we're allowed. These will be the world's most advanced "data centric" supercomputing systems, and we'll roll out POWER9 across the Power portfolio throughout 2018.

Storage hardware was up again this quarter, increasing eight percent, led by strong double-digit growth in our all-flash array offerings. Flash was the growth catalyst in our Storage midrange and high-end offerings. Storage hardware margins increased, both year to year and sequentially.

So to summarize Systems, our year-to-year revenue and gross margin trajectory improved, with consecutive quarters of revenue growth in Storage offset by the expected cycle-driven declines in z Systems and Power. While we face some shifting market dynamics and product transitions, our portfolio remains optimized for cognitive and cloud, and we continue to expand our footprint and add new capabilities. Our recent z14 launch and the upcoming Power refresh beginning later in the year will drive further improvement in second half performance.

Cash Flow and Balance Sheet Highlights

Turning to cash flow and the balance sheet, in the second quarter we generated \$3.3 billion of cash from operations excluding our financing receivables. We invested about three quarters of a billion dollars in capital expenditures, focused in our Watson and Cloud Platform areas, as well as in support of our Services and Systems businesses. And so we generated \$2.6 billion of free cash flow, which is up almost \$350 million year to year. This reflects continued strong collections performance for the second consecutive quarter.

For the first half, our free cash flow was \$3.6 billion, and over the last twelve months our cash realization rate is 94 percent, four points higher than last quarter's trailing twelve-month rate.

The first half free cash flow of \$3.6 billion is down \$900 million year to year. However you'll recall in the first half of last year we had a \$1.2 billion Japan tax refund. As we look forward to the full year, we continue to expect free cash flow to be roughly flat with last year, with the first half year-to-year headwind switching to a tailwind in the second half from taxes and workforce rebalancing payments. And of course this reflects the level of profit consistent with our full year view of earnings per share.

Looking at uses of cash in the half, our acquisition spend was relatively light, after a significant number of acquisitions in 2015 and early 2016. We're focused on investing and integrating these acquisitions as we expand our solutions and cloud capabilities. In the last six months, we've returned five-and-a-half billion dollars to shareholders, including \$2.7 billion in dividends. In April, we again raised our dividend, and with that we've more than doubled our dividend since 2010. In the first half, we bought back over 16 million shares, and we ended June with 932 million shares outstanding and

\$2.4 billion remaining in our buyback authorization.

Moving on to the balance sheet, we ended June with \$12.3 billion in cash and \$45.7 billion in total debt. Both of these are up from year end, primarily driven by the timing of this year's term debt issuances and maturities.

Twenty-nine billion of our total debt was in support of our financing business. The leverage in our financing business remains at 9 to 1 and the portfolio remains strong at 53 percent investment grade. We've got more on our financing business in our supplemental charts at the back of the presentation. Our balance sheet remains strong, and with our newly reorganized financing entity we are even better positioned to support our business over the long term.

Summary

Let me start to wrap up by putting some additional perspective on our revenue trajectory, and we'll look at it by segment, because our businesses are at different stages of transformation.

In Global Business Services, we've said for some time that the progression is driven by improvement in signings, leading to backlog and then ultimately revenue. I'd plant the flag to mark the beginning of an improvement in the revenue growth trajectory for GBS back in the fourth quarter of last year, and we've now had two consecutive quarters of signings growth, substantial improvements in the Consulting backlog, and a modest 20 basis point improvement in GBS revenue performance from first to second. This is what improving momentum in this services business looks like. So now with this momentum and a more focused set of offerings and improvements in execution, we see an improved trajectory in GBS in the second half.

In Global Technology Services with decelerating performance over the last two quarters, we're planting the flag now, the end of the second quarter. With the ramp in some of our new contracts we do expect improved performance in the second half, though we're not counting on a return to revenue growth this year, just an improved revenue trajectory.

And in Systems, Storage had been declining, but you'll remember we planted the flag as we got all-flash into the product line toward the end of last year, and we've now had two consecutive quarters of revenue growth. Power, I'd similarly plant the flag back at the end of last year, and for System z mainframe, growth is tied more to the nine to ten quarter product cycle, which we'll refresh later this quarter.

Finally, in Cognitive Solutions, we've now wrapped on our acquisitions. Our annuity content continues to grow. This is driven in large part by our SaaS offerings, and as we've talked about in the past, they ramp and build scale over a longer timeframe.

Put it all together, and we expect improvement in the constant currency growth rate through the rest of the year.

Now when we look at gross margin. I mentioned three drivers of our year-to-year performance in the first half. We've seen some moderation in the headwinds from mix and investments already from first to second, and I'd expect that to continue. We're always driving productivity in the business, and much of that gets returned to our clients in the form of price, or it offsets cyclical impacts, or goes to the bottom line. In the first half, the net of these factors was an impact to our margin, but as we move to the second half, with new product introduction and improved services dynamics, I'd expect this to be a benefit to our margin. Put that all together, and just as we expect improvement in our revenue trajectory, we also expect an improved gross margin profile in the second half as compared to the first.

So in total, those drivers of our first to second half performance improvements are consistent with what we talked about 90 days ago. We'll have a new IBM Z product out by the end of this quarter, which will drive an improvement in gross profit from first to second half. Related to that, we'll also benefit from lower Systems development spending. The new services contracts in Global Technology Services will start to contribute, and with the cost savings we're driving, we'll have better profit performance in GTS. In Global Business Services, we expect the momentum to deliver a better second half. We've essentially wrapped on last year's larger acquisitions which are dilutive to profit, and we're now at the stage where we can start to yield more benefits from operational synergies.

Our ongoing operational tax rate assumption continues to be 15 percent, plus or minus three points, driven by anticipated mix. As always this is without discrete items. But the rate is dependent on the mix of business, because just like every dollar of revenue doesn't result in the same amount of gross profit, every dollar of gross profit doesn't drive the same amount of after tax profit.

So at the bottom line, we continue to expect to deliver at least \$13.80 of operating earnings per share for 2017, and free cash flow that is consistent with last year.

And with that, we'll take your questions.

Closing

Thank you, Martin. Before we begin the Q&A I'd like to mention a couple of items. First, we have supplemental charts at the end of the slide deck that provide additional information on the quarter. And second, as always, I'd ask you to refrain from multi-part questions.

So operator, let's please open it up for questions.