SEPTEMBER 2014

PROPHET MARGINS

Stock markets have enjoyed a banner half-decade, forcefully reclaiming the ground lost to the financial crisis, and then some. This vigorous performance has occurred thanks, above all else, to two key enablers: surging earnings and recovering valuations.

On the surface, there is nothing especially questionable about either. Earnings naturally rise as economies grow, and valuations recover as risk aversion fades.

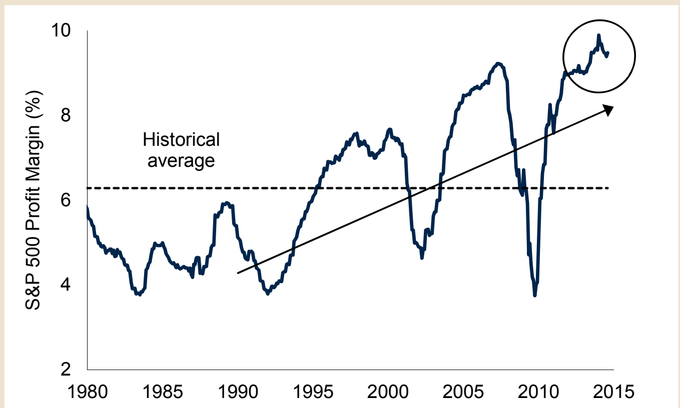
However, a closer examination reveals a significant vulnerability within this cozy equation. Corporate earnings growth has been, in a sense, too good – persistently outpacing both revenues and the economy. This has driven profit margins to multi-decade highs (Exhibit 1).

Worryingly, profit margins have long been assumed to be mean-reverting, arguing that these juicy gains may eventually have to reverse. Such a scenario would necessitate an eye-watering one-third decline in the S&P 500. With stakes as big as these, a clear sense of the downside risk is imperative.

This report evaluates the seriousness of the threat by seeking to understand the forces that have propelled profit margins higher, and their likely direction in the future. In so doing, we find that a large number of previously favourable profit-margin enablers are on the cusp of reversing, with the implication that profit margins could suffer.

Fortunately, there are a number of underappreciated structural forces that continue to support high (and in some cases, even rising) profit margins as well. The key question is which set will dominate.

Exhibit 1: S&P 500 profit margin is very high



Source: RBC Capital Markets, RBC GAM

Measuring profit margins

A company's net profit margin is the share of revenues that remains once expenses have been paid. Normally, companies must work quite hard for their profit, keeping merely one out of every 17 dollars that enter the till.

However, profit margins are not constant over time. Sometimes margins are thin, and at other times they are considerably thicker. True to form, U.S. S&P 500 Index profit margins have undulated over the years, but all the while exhibited a curious upward trend, from 5.9% in 1980 to 9.5% today. Don't let the small absolute figures obscure the main point: profit margins have managed a remarkable 61% gain.

Is this phenomenon of rising profit margins a mere quirk of the 500 large companies in the S&P index, unreflective of the broader economy? Alternately, are high profit margins a function of U.S. exceptionalism rather than a global trend? The clear answer to both is "no" – this is an economy-wide and international phenomenon.

What has enabled the increase in profit margins, and can it continue its remarkable ascent? We identify the key factors that have driven profit margins higher and, with a clear eye on the future, break them into three categories: margin drivers that are reversing, margin drivers that are stabilizing and margin drivers that are pushing forward.

Arguments for falling margins

Several variables are about to stop contributing to the ascent of profit margins and instead begin detracting from them. Most are cyclical in nature.

Rates

Thanks to stimulative central banks and risk-averse investors, companies have enjoyed record-low borrowing costs over the past six years. Even factoring in the hit that firms have suffered from their fixed-income assets on the revenue side of the ledger, they have come out well ahead. Nevertheless, as the U.S. Federal Reserve (Fed) and a handful of other major central banks begin removing stimulus over the next few years, it seems inevitable that corporate borrowing costs will rise, pinching profit margins.

Deleveraging

Hand in hand with low borrowing costs has been a marked decline in corporate leverage over the past several years. The S&P 500 debt-to-capital ratio has fallen to its lowest level in over 20 years. This saves on debt servicing costs. With regard to the future, the strengthening economy, fading memories of the financial crisis and hard evidence of accelerating business-credit growth all hint that deleveraging is likely over, and perhaps even that some additional leverage will henceforth be taken. While overall profits may benefit, a recent tailwind for margins should simultaneously turn into a slight headwind.

Wages

It is slightly disorienting that although economic growth has begun to pick up, wage growth is still stagnant in the U.S. and most of the developed world. There is a ferocious debate over precisely when wages will begin to rise more quickly. We believe this day is coming sooner rather than later. The Fed tends to think it will happen a bit later (though their thinking is clearly evolving in our direction). Either way, it is fair to assume that wages will accelerate within a few years' time. Naturally, corporate profit margins will come under pressure as worker compensation – representing around 15% of S&P 500 company expenses – begins to rise more quickly.

Capital investment

The aftermath of the global financial crisis has prompted companies to postpone costly capital investments. Now, however, the need for business investment is arguably returning given strengthening economic growth and an increasingly normal-looking capacity-utilization rate. Determining the effect of rising capital investment on profits margins is a roundabout journey. Accrual accounting principles demand that only the part of the capital stock that was "consumed" in the period (i.e. the depreciated part) appears as an expense. This technicality greatly delays and mutes the deleterious effect of more capital investment on profit margins. Still, more capital investment certainly reduces the cash flow of businesses, and also eventually translates into slightly smaller profit margins as the additional capital stock is consumed.

Currency

The U.S. dollar cycles through long, multi-year periods of strength and weakness. For almost a decade, the dominant trend was a weakening greenback, which had the beneficial effect of making U.S. exports more attractive to foreign buyers, and increasing the dollar-denominated haul of U.S. multinationals' foreign profits. Lately, however, the U.S. dollar has reversed course and begun appreciating. This is a trend we expect will continue due to valuation considerations, the strengthening U.S. economy and the prospect of Fed tightening.

Arguments for steady margins

Another set of margin drivers are losing steam, albeit merely to the point of supporting a steady profit margin rather than an outright decline.

Globalization

Over the past several decades, globalization advanced briskly as free trade deals were struck, tariffs fell and emerging-market economies exploded higher. Since 1995, the foreign share of S&P 500 earnings has almost tripled. Globalization has also been a key structural driver of rising profit margins. However, times are changing. The rate of globalization appears to have slowed. Naturally, slower globalization means that a previously reliable upward pressure on profit margins is weakening. Notably, foreign labour is not as cheap on a relative basis as it was.

Taxes

As a result of the declining effective U.S. tax rate, U.S. profits are a substantial 27% higher than they would have been had the 1980 effective tax rate remained in place. Theoretically, this explains multiple percentage points of the increase in profit margins across this period. Indisputably, this has been an important contributor to margins. The U.S. appears to be working toward comprehensive tax reforms that will combine lower tax rates with fewer loopholes, resulting in a broader tax base and an effective tax rate that is essentially unchanged. Thus, the tax environment is transforming from a big driver of rising profit margins into merely a support of existing margins.

Unionization

The rate of unionization has declined sharply in the U.S. over the past several decades. As unionization has ebbed, fewer firms are held to account by their workers to fully share in the fruits of rising productivity. Moreover, the overall rate of unionization has arguably fallen below the minimum threshold necessary for unionized wages to exert any influence over the remainder of the labour market. In turn, while unionization's decline shows no sign of ebbing, it may be past the point of mattering whether the unionized share is a mere 11% or a puny 5% – the bulk of the productivity gains look set to continue accruing to the owners of capital.

Arguments for rising margins

Last are three structural developments that continue to support rising profit margins.

Sector composition

The first is a shifting sector composition. Within the S&P 500, for instance, a compositional shift has occurred in favour of the Information Technology and Financials sectors, at the expense of sectors such as Industrials. This is highly relevant to our investigation, because the former two sectors tend to have very high profit margins. Thus, overall profit margins would be rising even if each individual sector's margins remained completely unchanged. Collectively, we calculate that this compositional shift across sectors explains a whopping 32% of the increase in the S&P 500 profit margin between 1990 and 2014.

Automation

As machines and technology replace labour, automation continues to roll forward. The stock of U.S. machinery and equipment has outgrown the number of workers by a factor of four since 1950. This is theoretically relevant for profit margins, since the primary motivation of replacing workers with machines is cost savings (leading to higher profit margins). We believe automation is still accelerating, albeit in a different form. Past automation focused on replacing manufacturing workers with (fairly expensive) machines. In contrast, the internet promises to replace sales clerks with internet-based software. In this fashion, automation continues forward, if less obviously.

Demographics

The demographic argument for higher profit margins is based more on observation than theory. Profit margins were unusually low through the 1970s and 1980s as Baby Boomers entered the workforce. In contrast, more sluggish eras of working-age population growth have managed higher profit margins. As is widely recognized, the coming years will be marked by a continued demographic deterioration.

In turn, this may enable profit margins to continue rising. However, we don't put an enormous weight on this impulse for three reasons: the theoretical justification is weak, the so-called demographic effect may simply be picking up other influences and the relevant demographic trend is not actually that bad through 2020.

Forecasting profit margins

Now that we have identified the key profit margin drivers and provided some sense for the likely direction of each driver going forward, we can turn our attention to quantifying their collective impact. There are several practical ways to go about this.

Exhibit 2: Profit margin scorecard

	OUTLOOK	WEIGHT
Rates	Negative	15%
Wages	Negative	10%
Currency	Negative	5%
Mean reversion	Negative	10%
Leverage	Slight negative	5%
Capital investment	Slight negative	5%
Globalization	Neutral	5%
Tax rate	Neutral	10%
Unionization	Neutral	5%
Automation	Slight positive	10%
Demographics	Slight positive	5%
Sector composition	Positive	15%
OVERALL MARGIN OUTLOOK: VERY SLIGHT NEGATIVE		

Source: RBC GAM

Scorecard

Our first forecasting strategy uses our expert judgement to assign a weight to each profit margin driver, then scores each factor according to whether it is expected to have a positive or negative effect on the future direction of profit margins (Exhibit 2). Collectively, the variables point to a very slight downward bias for profit margins in the future.

Econometric model

Our second forecasting strategy employs an econometric model. Given the challenge inherent in modelling a dozen macroeconomic variables, we are pleasantly surprised by the coherence of the results. The models manage to explain around 90% of the movement in profit margins dating from 1980.

Inevitably, though, they are not perfect. A handful of explanatory variables have the "wrong" sign, though this is not unusual with so many correlated variables vying for influence (Exhibit 3). The two models make slightly different forecasts, but share the basic expectation of a snug range around current profit margin levels, with perhaps the slightest of downward biases.

Survey

Finally, it is worth asking businesses themselves how they see profit margins evolving. The Atlanta Fed's survey on this subject finds that the majority of respondents believe profit margins are actually a bit lower than usual.

Final thoughts

Each of our forecasting techniques arrives at a slightly different conclusion. The scorecard-based system calls for slightly lower margins; the models argue for approximately flat margins; the survey – which should probably be acknowledged as the flimsiest of the techniques – suggests margins could even increase in the future. We place greater trust in the first two forecasts, implying that the odds of margins declining from here are probably better than them rising. But the clearest conclusion is that profit margins are already about right. Crucially, none of the approaches prophecies a collapse in profit margins, just as none calls for a particularly forceful continuation of the recent upward trend.

Exhibit 3: Modeling profit margins

	EFFECT ON MARGINS	
	Non-financial corporations	S&P 500
Business cycle	Neutral	Neutral
Rates	**Positive**	Negative
Leverage	**NEGATIVE**	**NEGATIVE**
Wages	**NEGATIVE**	Positive
Currency	Negative	Negative
Globalization	**Positive**	Positive
Tax rate	**Negative**	**POSITIVE**
Unionization	Negative	**Negative**
Sector composition	Positive	Positive
Automation	**Positive**	**Positive**
Working-age population growth	**POSITIVE**	Positive
Explanatory power	**92%**	**85%**

Note: Direction indicates whether an increasing variable has a positive or negative effect on profit margins. Colour coding indicates whether direction is consistent with theoretical expectations. Bolded sign means result is statistically significant (at 25% level or better); Bolded and capitalized sign means result is highly statistically significant (at 10% level or better).
Source: RBC GAM

For the expanded version of this publication, please visit our website at
www.rbcgam.com/investment-insights/research-publications

RBC Global
Asset Management